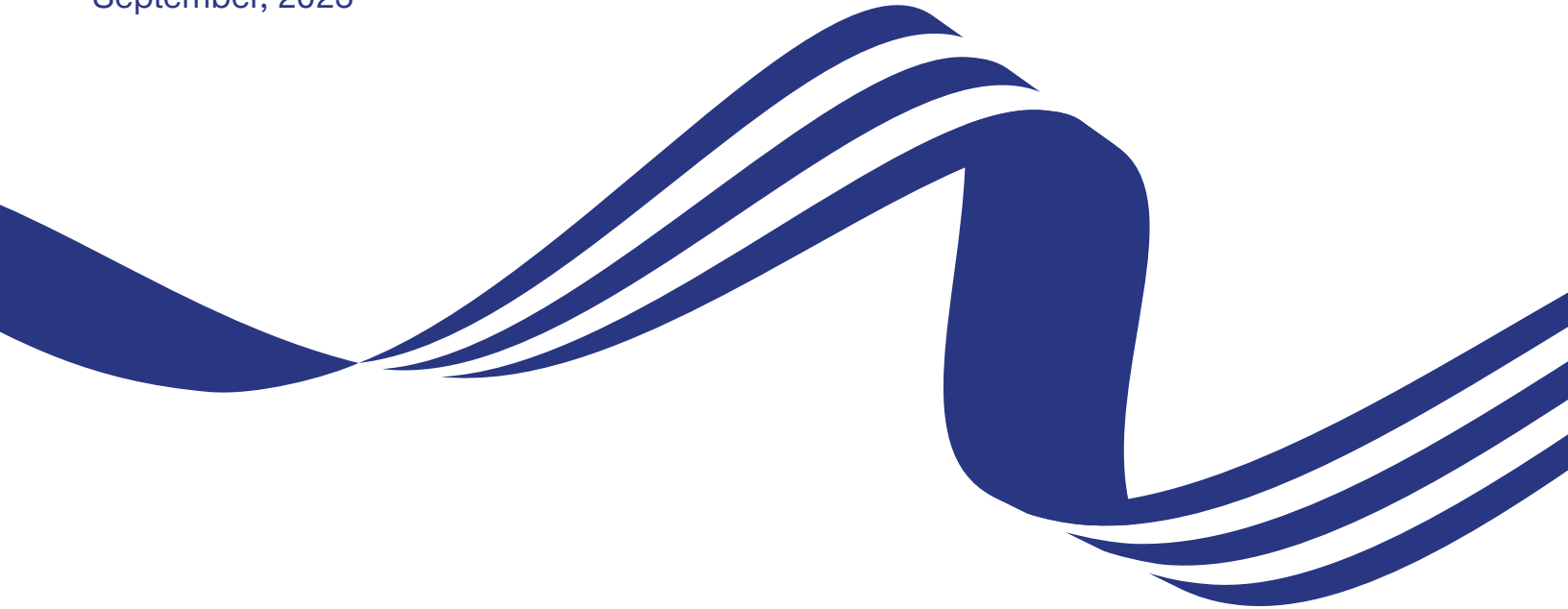# Advancing technology

to meet the greatest challenges in Medicaid: access, workforce, and equity

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United Healthcare | healthsperien

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Executive Summary

Introduction
The role of technology within the Medicaid program is at an inflection point. The time is now for state Medicaid programs to work with their stakeholder partners, including managed care organizations (MCOs), and intentionally integrate the full capabilities of technology solutions as part of a broader concerted strategy to advance program goals. We explore how states can advance technology within their state Medicaid programs to address challenges related to ensuring access to coverage, addressing workforce shortages, and promoting health equity.

Access
Advancing underlying Eligibility and Enrollment (E&E) system technologies, including maximizing use of ex parte renewals and adapting integrated E&E systems, can greatly improve the Medicaid program's ability to engage enrollees and ensure they can enroll in and maintain Medicaid coverage. Better enrollment processes and access to coverage can consequently lead to better management of healthcare needs, improving health outcomes and reducing costs. However, to pursue modernization, the state must craft a long-term strategy to solution for entrenched legacy systems, complex eligibility criteria, and lack of federal guidance and standardization. For example, outdated batching of enrollment files can slow down enrollment processes and lead to delays in securing coverage. Collaboration with MCOs and relevant state agencies can assist in complementing eligibility and enrollment efforts through data sharing and outreach.

Workforce
While technology cannot solution for the underlying forces driving workforce shortages in Medicaid, it can minimize provider administrative burden and enhance care delivery. State Medicaid agencies and MCOs can collaboratively work with providers to intentionally deploy solutions to increase provider efficiencies and enhance care delivery and care management. These may be provided through virtual scribe technologies, sharing data and offering actionable data insights, supporting deployment of remote patient monitoring, and incorporating AI-driven analytics and clinical support tools.

Equity
States and their MCO, community-based organization, and provider partners can actively work together to develop concerted strategies to improve the collection and sharing of data that enables data analytics that bring inequities into the light. To truly develop whole-person records of enrollees, states must break down interagency silos that prevent the sharing of data, as well as encourage external sharing of health and social needs data, such as through the development of a community information exchange. To use this data effectively, states must then have an overarching goal for what they intend to achieve, to translate insights into concrete actions.

Key Stakeholder Actions
All stakeholders have a critical part to play in advancing a technology strategy. States must act as central conveners and define the broad contours of outcomes to be achieved. The federal government must serve as a key enabler and amplifier of state activities through financial resources, technical assistance, and standardization. MCOs should act as key partners to states in ideating, developing, and implementing the strategy, leveraging their own innovative technology practices. Providers must identify key gaps within their practices that technology can help bridge. Enrollees should communicate with other stakeholders on the day-to-day challenges they face to inform technology solutions and improvements. Finally, technology vendors must engage in a bidirectional dialogue with states to inform both operational tasks and broader programmatic goals.

Conclusion
States and their stakeholder partners must develop an intentional, deliberate technology strategy to inform how technological improvements and innovations can be best deployed to meet the needs of Medicaid enrollees. While states encounter significant barriers, states are not alone in developing such strategies, and vested stakeholders, including MCOs, remain ready to partner with states to advance technological solutions.

I. Introduction

The role of technology within the Medicaid program is at an inflection point. New care delivery modalities, elevated scrutiny on eligibility and redetermination processes following the end of the COVID-19 public health emergency, rapid expansion and proliferation of machine learning and artificial intelligence, ever-increasing expectations of population care management approaches, and heightened interoperability efforts have all illustrated the need for and value of transformational technological solutions. Medicaid programs can integrate these impactful technologies into their operations to achieve outcomes that were previously only aspirational.

Medicaid is not alone in its burgeoning relationship with tech. One recent assessment of health tech investments estimated more than a four-fold increase in capital dollars between 2016 and 2022 ($6.7 billion to $27.5 billion).[1] While Medicare Advantage receives disproportionately far more investment interest than Medicaid, recent investment trends have supported business models with payer-focused care delivery solutions across all market types.[2,3] As investment in technology continues to grow, all stakeholders in health care – including state Medicaid programs – must continue to incorporate technology solutions into broader programmatic strategies.

What distinguishes Medicaid's relationship with technology from the rest of the health care landscape is the sheer breadth of its need for solutions. Medicaid is the only payer that must coordinate delivery of services that include physical health, behavioral health, long-term care, and health-related social needs across the entirety of the demographic spectrum. Approximately four out of ten births are covered by Medicaid nationally and nearly 20% of all adults are covered by the program. At peak enrollment during the COVID-19 pandemic, Medicaid covered approximately 92 million individuals across the country – approximately 28% of the total population.[4] The outsized role that Medicaid plays in the social service safety net places great pressure on state programs to think creatively in the adoption and implementation of beneficial technologies.

However, successful incorporation of technology into Medicaid continues to face enduring barriers endemic to most state programs. These barriers include insufficient funding for states to meaningfully invest in technology, staffing limitations preventing the development of internal expertise and capacity needed to assess and implement solutions, competing priorities such as implementation of new systems to address new federal requirements (e.g., the Medicaid Eligibility and Enrollment Proposed Rule),[5] and an overall ad hoc approach to tech adoption that creates fragmented and redundant solutioning.

Limited state capacity with conflicting priorities forces well-intentioned states to err to more risk-averse and limited approaches in their technology strategies. Working with limited resources, states must often treat technology as a series of one-off solutions to individual problems rather than as part of an overarching, comprehensive approach towards Medicaid service delivery. Limited funding creates a modularized environment forcing states to coordinate a quagmire of multiple contractors that are often, in turn, managed by a system integrator contractor. This disjointed nature of procurement and vendor management, coupled with the inherent incentives for vendors and states to cost contain with time and material contracts, breeds an environment where there is a lack of overarching strategy in how technology advances the broader programmatic goals of state Medicaid programs.

Medicaid domains of focus

Access – Refers to an individual's ability to receive needed health services and health coverage. Technology serves a determining factor in ensuring enrollees have appropriate and timely access to health care. States can maximize access to health care through a concerted look at their internal Medicaid systems – particularly their Eligibility and Enrollment systems.

Workforce – Refers to the availability of licensed healthcare professionals, paraprofessionals, and support staff to provide healthcare services to Medicaid enrollees. States should encourage Medicaid participation among the available workforce by removing administrative barriers and friction points, and ensure their services and rates support innovative care delivery.

Equity – Refers to the ability to identify and proactively address inequities that exist among Medicaid enrollees. States in collaboration with their MCO, CBO, and provider partners, can address barriers to acting on data, including gaps in technology, hesitation to share data, and varied data collection processes.

Despite these obstacles, health care technology can advance state Medicaid efforts across multiple key domains. Three of the main friction points facing Medicaid programs today include issues related to access of care, workforce shortages in critical provider areas, and the imperative to ensure equitable health outcomes and service delivery to all covered enrollees:

Each of these areas provides insights into the common hurdles facing state Medicaid programs and how technology can play a central role in achieving programmatic success. They also highlight the invaluable role that various stakeholders – particularly Medicaid managed care organizations (MCOs) – can serve in assisting states with identifying, implementing, managing, and evolving their technology solutions. For example, as explained in the Access section below, North Carolina MCOs collect and share enrollee contact information with the state when information changes, enabling more consistent communication with enrollees.[6]

Individual state Medicaid programs must intentionally integrate the full capabilities of technology solutions as part of each program's broader concerted strategy and associated goals.

Some states have already taken up this call to action and have shown the benefits of an integrated technology strategy. For example, the Washington state Medicaid program has recently responded to a legislative mandate by developing a detailed approach in evolving their Enrollment & Eligibility (E&E) systems. As described by Washington, modernization of such systems can result in more sustainable and predictable costs, cost savings to ensure a return on investment, and improved flexibility to respond to population health needs. For Washingtonians, the state notes that modernization will result in a more consistent experience, increased support to respond to enrollee needs, and the ability to share data across programs.

Washington State's Comprehensive IT Strategy

Washington, spurred by a state legislative mandate, formed a coalition of state agencies to provide IT strategic direction, cross-organization IT project support, and IT federal guidance. The Washington Health and Human Services Enterprise Coalition (HHS Coalition) collectively operates over 75 health and human service programs, including Medicaid. Notably, the HHS Coalition has established a collective vision of how it intends to accelerate adoption and implementation of modern, scalable IT solutions across its agencies, which includes the following seven goals:

• Remove barriers to access for client benefits.
• Provide rapid value to programs and Washingtonians through agile delivery methodology for IT projects.
• Improve equitable access and outcomes for all.
• Ensure good stewardship of public dollars.
• Collaborate across HHS Coalition programs.
• Conduct effective government program operations.
• Ensure robust communications in emergencies.

Development of an integrated E&E system is one of its primary initiatives that it intends to implement over the next five years. Washington is choosing to take an iterative approach, in which it will incrementally build modern components while strategically moving dependency off its legacy system. Washington State charted a 5-year roadmap outlining their vision for modernizing their E&E systems, with key products delivered each year. Washington documents many of the benefits of an integrated E&E system. System modernization will result in:

• Increased **security and stability**, including improved system uptime and the ability to scale system capacity based on demand, improved disaster recovery timeframes, and reduced security and privacy risks.
• Use of **modern technology,** facilitating system changes that are more responsive to the needs of Washingtonians, cloud-based systems that can provide more predictable technology costs and shift costs from major capital expenditures to ongoing operating expenses, and the allowance for a greater pool of vendors to be able to maintain systems and support diversity of vendor sizes.
• A more **consistent and streamlined experience for Washington residents,** where there is "no wrong door" and enrollees are seamlessly routed to the programs they are eligible for.

The state's approach towards an integrated E&E system is a prime example of the very kind of comprehensive strategy that we will be advocating for in this paper.

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Washington's example shows the potential power of coordinating technology advancement with programmatic aims.[7] In each section below we explore ways in which states can achieve similar ends in the context of Access, Workforce, and Equity. We conclude with a consideration of what role key stakeholders can play in an encompassing state Medicaid program strategy.

II. Access

"Access" is understood as a measure of an individual's ability to attain and receive services from the healthcare system.[8] Adequate access to care is determined by an individual's ability to find a healthcare professional that meets their needs in a timely manner. It can be influenced by a multitude of social factors, such as the ability to secure transportation or take time off work to visit the clinic. It is also influenced by the number and availability of appropriate provider and provider types within an individual's community (these concepts are explored more in the Workforce section).

Access to Coverage

Access is most fundamentally dependent on an individual's ability to attain health insurance coverage to afford those services. Access to coverage is especially important within the context of Medicaid, given its critical role in the social safety net. However, obtaining and maintaining Medicaid coverage is an extremely precarious and administratively complex process.

Underlying this process are states' **Eligibility and Enrollment (E&E) systems.** These systems encompass the various fundamental technologies that support a state's ability to determine an applicant's eligibility for and consequent enrollment into the Medicaid program. In addition to confirming eligibility, these systems also produce documents including applications, forms, and notices that are essential for determining benefits and managing cases. The systems must communicate all this information with the full range of relevant stakeholders including enrollees, state offices, providers, MCOs, and community-based organizations (CBOs). In this capacity, E&E systems are tasked with executing the broader eligibility and enrollment policies set by a state and serve as a gatekeeper for Medicaid coverage and access to care.

However, as will be described in further detail below, E&E systems suffer from limitations associated with outdated legacy infrastructure, leading to inefficiencies and delays in processing applications. For instance, while 48 states are able to make real time Medicaid eligibility determinations, 21 states who have mostly automated processes still require over 24 hours to process applications, and 17 states are still using some form of manual determination. This disparity underscores the ongoing need to optimize E&E for expediting eligibility information, and the significant variation that persists in real-time eligibility determinations across states.[9]

A closer look at technology-related Medicaid administrative expenditures also illustrates a reliance on external vendors. In 2022, tech-related Medicaid administrative expenditures focused on E&E and state Medicaid Management Information Systems (MMIS) amounted to approximately $7 billion dollars.[10] That $7 billion accounted for more than 90% of total tech-related Medicaid expenditures. Of that $7 billion, approximately $5.8 billion were payments for private contractors or entities to assist states in developing, managing, or enhancing these systems. While $7 billion in administrative costs appears relatively trivial when compared to total service-related expenditures in Medicaid (approximately $728 billion in 2021), the relatively high proportion of expenditures committed to third-party private contractors highlights the dependence of state Medicaid programs on external solutions.

The urgency for E&E system modernization has escalated in the wake of the COVID-19 pandemic and the ongoing redetermination of eligibility of all Medicaid enrollees.[11] As of April 2023, an overwhelming 79% of those who experienced disenrollment did so due to procedural reasons, primarily rooted in their failure to return renewal forms or an inability for the state to establish contact.[12] This procedural lapse underscores the critical role that streamlined and user-friendly E&E systems can play in maintaining access to healthcare services.

E&E System Challenges

System Vulnerabilities

Legacy E&E systems expose a host of shortcomings and vulnerabilities that states should proactively be solutioning for. For example, in its 2022 Integrated Eligibility and Enrollment Modernization Roadmap Report, Washington outlines key challenges of its ACES complex, the IT system the state relies on for its eligibility and enrollment functions.[13] While successfully operating over the past three decades, Washington highlights the following vulnerabilities, which are indictive of legacy systems at large:

- Recent assessments put the risk of the ACES complex going offline due to hardware failure significantly higher beyond 2025.
- The vendor contract supporting maintenance and operation of the system expires in 2023. The vendor has noted that parts of the mainframe hardware will not be supported after 2025.
- The mainframe uses legacy computer code (Common Business-Oriented Language, COBOL) which is a language that is over 60 years old. Consequently, COBOL code is very inefficient, requiring 12 million lines of code to support mainframe operations. Programmers familiar with COBOL are becoming harder and more expensive to hire.

Batching

Another example of legacy systems' impact on the modernization of E&E processes is the practice of sending enrollment files in batches rather than real-time updates. While the current batched approach entails sending files anywhere from a daily, weekly, or monthly basis and processing them over a corresponding time frame, the transition to real-time updates could revolutionize the speed and accuracy of eligibility determinations, enabling the seamless transmission of new member enrollment forms and query event services within an hour of a member's submission.

The need for centralized oversight and assistance, including technical assistance from the Centers for Medicare and Medicaid Services (CMS), becomes evident in pursuing real-time updates. Uniform enrollment file standards at the federal level would set a benchmark for efficiency across the board, ensuring that enrollment files, whether received individually or supplemented, align with the contemporary demands of timely and accurate access to healthcare services.

Ex Parte Renewals

The Medicaid ex parte process stands as a pivotal element of streamlining access to healthcare services for Medicaid populations. Ex parte renewals involve an automated function executed by the state's eligibility system to determine an individual's eligibility based on available data, without requiring additional information from the individual.[14] The types of data varies depending on an individual state's verification plan and can include information in the enrollee's account, as well as data from sources such as state and federal data hubs, Social Security Administration records, Internal Revenue Service files, Unemployment Insurance information, and Supplemental Nutrition Assistance Program (SNAP) and Temporary Assistance for Needy Families (TANF).[15] This data, according to CMS, should generally be verified within the prior 6 months to be considered reliable.[16] The benefits of increasing the rate of automatically renewed cases include a substantial reduction in both state administrative burden and the risk of coverage loss due to procedural barriers (e.g., enrollees not responding to notices). Maximizing use of ex parte renewals has been critical during the redetermination process to manage the sheer volume of actions to be conducted.

Federal requirements mandate that states conduct a redetermination ex parte, if possible.[17] However, there is significant variation in practice – in January 2023, 20 states were found to conduct less than 50% of their renewals ex parte. States in particular experience more difficulty conducting renewals for their non-MAGI populations, which often have more complex eligibility criteria to be verified. In a 2022 analysis, 40% of states reported they don't have an ex parte process in place for aged, blind, or disabled populations.[18] While these populations are less likely to change eligibility status, they face more demanding renewal requirements and are especially vulnerable during a coverage loss due to the essential nature of the services they rely on.[19]

Integrated E&E Systems

Integrated E&E systems facilitate eligibility determinations and benefits enrollment for multiple programs in a streamlined fashion, such as for Medicaid and other human service programs (e.g., SNAP and WIC). Such systems allow Medicaid programs to draw on multiple data sources when determining eligibility of an individual, and thus can facilitate ex parte renewals as well. These sources include data from other data sets, such as SNAP, TANF, and WIC. To date, anywhere from 29-37 states have some form of integrated eligibility systems.[20] Even states without integrated systems are still likely to share data with across programs.[21]

The benefits of integrated E&E systems cannot be understated. For example, Kentucky's integrated eligibility system has led to significant savings of approximately $20 million in IT and operational costs. As a result of its integrated E&E system, the state has improved processing times, reduced staff burden, reduced provider issues and complaints, and facilitated enterprise integration, ultimately improving efficiency and enrollee satisfaction.[22]

However, while integration can be of significant value to the efficiency of Medicaid E&E systems, there is a lack of federal guidance on how to effectively share data across programs.[23] There is no single approach to follow in implementing an integrated E&E, and the lack of technical assistance can impede efforts to implement integrated E&E systems. Specific barriers include:[24]

- There is a lack of alignment of policies and rules across federal programs. Various federal agencies may have different rules about what data can be shared between programs, and differing eligibility criteria and acceptable forms of verification may differ across programs. For example, SNAP may count child support income towards eligibility, whereas Medicaid will not.
- Legacy systems can make data sharing challenging – given older mainframes or outdated software languages.
- Sharing sensitive data can pose security and privacy concerns, fueling hesitation and confusion on what data can be shared, as described in more detail in the Equity section. There also may be federal rules on restricting certain types of data. For example, Federal Services Data Hub data allows information to be verified for Medicaid and other healthcare programs but is unable to be used for SNAP.

Enhancing E&E Processes

Maximizing Ex Parte Renewals

To enhance ex parte renewals, states should begin by comprehending the existing functionality of their Medicaid eligibility system and identifying cases that are not renewed ex parte. This involves examining the criteria outlined in design documents, which often hold the rules for determining ex parte eligibility. These documents also shed light on data sources accessed during renewal and the application of "reasonable compatibility." Furthermore, gathering data on why certain cases fail the ex parte renewal process can provide insights into areas that require closer scrutiny and potential improvements.[25] States can access federal matching funds that aid in offsetting the costs associated with these system changes.[26]

Improvements to ex parte renewal processes are best complemented with other methods of outreach. As illustrated through the Medicaid redeterminations process, MCOs can be critical partners in conducting outreach to enrollees to communicate when renewals are occurring and providing application assistance where necessary. For example, Arizona and Maryland provide their MCOs with lists of enrollees identifying who is up for renewal each month.[27] These efforts can continue as more and more groups are incorporated into ex parte processes.

Integrated E&E Systems

A mixture of federal guidance and state best practices can help address the barriers identified in deploying integrated E&E systems. Federal agencies should provide technical assistance on the exact kinds of data that can be shared from one program to another, such as clarity on the kinds of Medicaid and SNAP data that can be shared across programs. Verification requirements and processing dates should also be aligned. Finally, income verification tools, including notably the Federal Services Data Hub, should be available across programs.

For states, to fully take advantage of integrated E&E systems, policies, processes, and staffing must be aligned across programs. For example, the state may consider training caseworkers processing eligibility applications across programs. Integrated business management processes and other workflows between programs may also be needed.[28]

Implementing Ex Parte Renewal Process for Non-MAGI Populations in Minnesota

Minnesota's Medicaid program recently underwent the process of expanding their ex parte renewals of ABD populations, working with Code for America on a pilot program to update their eligibility and enrollment system. The state should now be able to consider approximately 70% of its ABD population for ex parte renewal, with 86% of those cases expected to have a successful renewal. The following best practices were identified throughout the duration of the pilot program:

- Dated legacy systems do not have to be complete barriers, as long as the necessary policy and operations experts are engaged to creatively solution for issues.
- Pre-determining and identifying the ex-parte eligible pool helped speed up the process.
- Clear policy and operational documentation for case workers is critical to help quicken renewals for complex cases (e.g., enrollees that have moved out of the state)

Effective IT governance structures are also critical – which dictates the governance that oversees and guides the integrated technology for the multiple programs. States must consider which agency leads and pays for upgrades and repairs, how federal reporting requirements will be reconciled across various agencies (e.g., will separate databases be needed for each program), and which data "trumps" other data when data do not align across programs.

Enrollee experience with the integrated eligibility and enrollment system should also be considered. For example, while a longer application may be needed to serve as a one-stop-shop for enrollees to apply for multiple programs, including Medicaid and SNAP, a higher income family only looking to apply for Marketplace subsidies may be dissuaded from a longer application. In these scenarios, two separate applications may be needed.[29]

More broadly, there are several key facets that define an enrollee's experience with benefits applications. Importantly, enrollees overarchingly prefer online applications, though also appreciate the option to speak to someone directly if they run into a problem.[30] Other considerations include if the application functions well on a mobile device, limits the number of screens and pages needed to complete an application, and circumvents certain barriers such as requiring registration via an email address.

Michigan stands out as a prime model for efficient benefit application systems, where applicants can seamlessly complete forms for four programs within a mere 20 minutes, marking a national best. The time to completion serves as a crucial gauge for assessing an application's efficacy through the lens of the users. A shorter completion time not only enhances the applicant experience but also spurs increased engagement, diminishes potential hurdles, reduces errors, and facilitates broader participation.[31]

MCOs, positioned as the vital link between enrollees and the Medicaid enrollment systems, can serve as the necessary point of contact for enrollees navigating these platforms while continuing to explore innovative ways to improve the enrollee experience. MCOs can also play a critical role in integrated E&E efforts. MCOs can strengthen outreach efforts to ensure enrollees are aware of and enrolled in the public benefit programs they are eligible for. North Carolina, as explained below, shared updated contact information between state and county agencies to better enable communication with enrollees.[32] This approach enabled caseworkers to swiftly find the required information, facilitating quicker and more efficient eligibility assessments for beneficiaries. Consequently, it helps to ensure the most current information is being utilized when determining eligibility.

North Carolina's Integrated Eligibility and Enrollment System

North Carolina operates a shared eligibility system called North Carolina Families Accessing Services through Technology (NC FAST). Through an accompanying online portal called ePASS, applicants can apply for and manage their Medicaid, SNAP, Energy Assistance, Work First Cash Assistance, and Child Care benefits. County agencies use NC FAST to collect data to support eligibility determinations for these programs, allowing caseworkers to quickly and easily acquire a holistic view of program participation that historically was stored in separate paper files. NC FAST's interfacing with electronic data sources has also reduced burden on enrollees to manually supply documentation and facilitated ex parte renewal processes.

Working with Benefits Data Trust (BDT), North Carolina is leveraging NC FAST to identify eligible individuals that are enrolled in Medicaid but not the state's SNAP program. BDT receives a list of Medicaid enrollees from North Carolina and cross-references this report against individuals not receiving SNAP benefits to inform targeted outreach. Of note, data sharing with North Carolina's MCOs has also helped county agencies access data more effectively, by sharing updated contact information with the state and counties when it changes. This in turn enables more consistent communication with enrollees, minimizing non-response.

Building Collaboration and Internal Expertise

Inherent in the recommendations to improve ex parte renewals and integrated E&E systems is a continued intentional effort on behalf of states to identify gaps, ideate on solutions, and deploy technologies that best meet the needs of enrollees. Given the nuanced institutional knowledge that may be required, the success of these initiatives hinge on states investing in their own workforce expertise, as well as collaborating with vendor partners who not only comprehend data intricacies but can also think critically about data utilization.

The effective exchange of this nuanced information across state agencies that serve similar populations, all united by a common objective, is an essential piece of this innovative approach to further developing and modernizing existing E&E systems. Without this overarching collaboration, achieving true integration of systems will prove challenging. For example, Washington State's effective coordination stems from integrating systems across agencies[33], including their state health care authority, state department of children youth and families, department of health, and their technology services agency. This collaboration isn't a mere formality but a cornerstone to optimizing the technology implementation process for E&E systems.

While it is clear that states lean on their external contractors to implement broad technology changes, the most fruitful collaborations occur when state agencies actively engage in solutioning, contributing ideas informed by the gaps they experience on a day-to-day basis. The challenge lies in overcoming the short-term focus of fixed-term contracts within the government sector, which often obstructs long-term investments and inhibits forward-thinking strategies. Balancing budget cycles and fostering a mindset of investment in long-term cost savings becomes essential.

An Aside: Revisiting the MITA Framework

Medicaid Information Technology Architecture (MITA) is an initiative and framework that consolidates principles, models, and guidelines together for states to use as a template in developing and improving their own enterprise architecture, effectively serving as a "how to" for implementation of enterprise solutions.[34] The MITA framework has three components: Business Architecture, Information Architecture, and Technology Architecture. The goals of MITA are as follows:

- Develop seamless and integrated systems that communicate effectively to achieve common Medicaid goals through interoperability and common standards.
- Promote an environment that supports flexibility, adaptability, and rapid response to changes in programs and technology.
- Promote an enterprise view that supports enabling technologies that align with Medicaid business processes and technologies.
- Provide data that is timely, accurate, usable, and easily accessible in order to support analysis and decision making for health care management and program administration.
- Provide performance measurement for accountability and planning.
- Coordinate with public health and other partners, and integrate health outcomes within the Medicaid community.

Ultimately, the MITA framework is a way for state Medicaid programs to de-couple legacy systems and break down existing silos within state and federal government. Consequently, MITA is a critical framework that state Medicaid agencies will be adhering to and following as they upgrade their enterprise systems, including their E&E systems. This is underscored by the fact that MITA is also a standard that states must meet to receive an enhanced federal funding match for health IT improvements.

The latest version of the initiative (MITA 3.0) is over a decade old, released in 2012, with the latest E&E supplemental guidance released in 2014. However, the MITA Governance Board, which is a forum for states, providers, and IT industry representatives to provide input on the strategic direction of MITA, began reconvening in March 2023 with a new focus on updating the MITA framework.[35] The Board's goals include 1) making MITA more meaningful and accessible, 2) reducing burden on states, 3) enabling automation, 4) ensuring tighter integration with certification activities, and 5) releasing guidance that is aligned with current trends in healthcare and IT.

An updated MITA framework will not only be instrumental to state pursuit of upgraded E&E systems, but also more broadly to the recommendations that we identify in each of the subsequent sections.

III. Workforce

The healthcare workforce includes a broad range of licensed healthcare professionals, paraprofessionals, and support staff who collectively provide services and supports to Medicaid enrollees. These enrollees will interact with numerous healthcare providers as they seek care: primary care providers to manage health needs; therapists, specialist physicians, and emergency medical professionals to respond to emergent and acute healthcare needs; and long-term care professionals, behavioral health providers, and community health workers to provide ongoing care to support more specific enrollee needs. Without access to an adequate supply of trained, competent and diverse healthcare workforce, there cannot be medical care provided to Medicaid enrollees.

Consequently, states, MCOs, and providers are implementing innovative technology-based solutions to best utilize the expertise of healthcare workers to meet the needs of the Medicaid population.

Impact of Healthcare Staff Shortages

States and MCOs are facing the challenge of ensuring Medicaid enrollees have access to an adequate provider network in the face of industry-wide workforce shortages. The need for additional healthcare workers will continue to rise as the U.S. population ages, demand for services increases, existing workers retire, and the population of new workers and students entering healthcare professions fails to keep pace. Medicaid faces the dual challenge of ensuring continued access to critical services while finding solutions to appropriately incentivize providers to accept Medicaid enrollees.

Providers' willingness to participate in Medicaid programs is driven by a variety of factors, many of which state Medicaid

Key Facts on the U.S. Healthcare Workforce Shortage

- The Health Resources and Services Administration (HRSA) predicts that demand for long-term care workers will grow by 44% by 2035
- HRSA predicts demand for most behavioral health workers will grow between 1-15% by 2035
- Providers are 20% less likely to accept new Medicaid-insured patients than those with private insurance (70.8% vs 91.0%)
- General/family practice physicians and psychiatrists having even lower rates of acceptance (68.2% and 35.7%, respectively)
- Over one-third of U.S. counties surveyed in 2008 lacked an outpatient mental health facility that accepted Medicaid
- Over 80% of direct care professional agencies were turning away new referrals due to staff shortages

agencies have little or no control over. For healthcare professionals with advanced degrees, the rising cost of higher education and student loan debt act as deterrents to pursing general practice/non-specialist roles with lower post-graduate salaries, and may inhibit their acceptance of lower Medicaid reimbursement.[36] For other support staff socioeconomic barriers, such as lack of affordable childcare, prevent them from pursuing training and technical education needed to advance their careers and fill needed mid- and entry-level roles like medical assistants, claims assistants, and community health workers.

While Medicaid generally serves as the "payer of last resort," states' collectively spent 27.6% of their budgets on Medicaid expenditures in FY 2022.[37] States are given broad authority by CMS to set and update their own Medicaid rates, which has generally resulted in Medicaid rate schedules that are lower than Medicare. The lower rate schedules create small margins for payment of services and limit investment in innovative new technologies.[38]

Despite these macro trends, states are still empowered (and expected) to make their Medicaid programs successful. It is unlikely that the supply of newly trained healthcare workers will be enough to keep pace with the ever-increasing need for healthcare services over the next several years or decades. States cannot continue to rely on traditional education and recruitment efforts to build their provider networks. Instead, states should look to their MCO partners who have the expertise and experience needed to identify ways to strategically implement innovative technologies solutions to facilitate high-quality care delivery, while also being good stewards of the available healthcare workers.

Reduce Barriers to Medicaid Participation

Barriers to Participation

States should critically review how providers and support staff enter and interact with the Medicaid program. Typically, new healthcare organizations must complete numerous, separate processes to establish and enroll as new Medicaid providers. Individual healthcare staff must apply for the appropriate licenses or certifications to be authorized to practice in the state. These application processes may take weeks or months to complete, with opportunities for delays and miscommunications at each step.

Researchers have also found that claims reimbursement delays and lower reimbursement overall are likely to reduce physician participation in state Medicaid programs.[39] Larger providers may have the ability to hire dedicated support staff and technology solutions to ensure that they are capturing, submitting, and tracking the claims and authorizations in a timely manner. However, these activities are not supported by Medicaid reimbursement, and these unfunded costs may be too much for small safety net providers to absorb. These enrollment and billing challenges create unnecessary disincentives for providers to participate in Medicaid, compounding already challenging workforce shortages.

Solutions and Opportunities

MCOs have already invested significant resources in developing and implementing sophisticated provider enrollment systems, based on the latest best practices in user experience, and which can be regularly updated by dedicated teams of technical experts. States could collaborate with MCOs to create and approve roadmaps for provider enrollment systems to enable improvement and updates that will minimize friction in the Medicaid provider enrollment process and ensure that capable and willing providers are able to serve enrollees in a timely manner.

Data from provider enrollment and claims systems could then be systematically shared and analyzed with MCO partners, who can use their technical expertise to analyze the data to identify opportunities in alignment with the administration's goals. For example, provider enrollment data may be used to identify network gaps, allowing for targeted outreach to providers who could best fill those needs. By implementing technology solutions with MCO partners, states can simultaneously improve processes and create data-driven insights and policies to support their provider network development strategies.

MCOs also rely on having effective two-way communication with states to exchange timely information and feedback. For example, states usually gather data on providers' contact information and address and share it with MCOs to use in their Medicaid-specific outreach and provider directories. In some states, MCOs are required to only use the state-provided information, regardless of whether the MCO has separately found more accurate or up-to-date data. A bidirectional information exchange between the state and MCO would reduce the administrative challenges of using out-of-date provider information. Furthermore, renewed CMS focus on the MITA framework, which includes elements of robust data sharing, will also facilitate this kind of information exchange.

In a time when providers are already forced to navigate multiple policies and processes across commercial and Medicare programs and plans to support their business, it is imperative that state Medicaid programs avoid creating more incentives for providers to opt out of serving Medicaid enrollees. By implementing streamlined, integrated, and provider-friendly technology solutions, state Medicaid agencies can minimize delays and provider abrasion, and maximize Medicaid participation among current healthcare workers.

Bolstering Workforce Capacity

Recent technology innovations can help enhance and supplement the traditional healthcare workforce and ensure that Medicaid enrollees are able to access needed care. Through the delivery of care, healthcare workers generate rich resources of enrollee-level data. But much of the management, review, and sharing still relies on manual, and in some cases, paper-based processes. This creates immense administrative burdens on healthcare workers and their support staff to manage and diminishes their capacity to spend time on direct patient care activities.

New technologies enable provider-generated clinical data to be collected and analyzed in much more fluid and sophisticated ways. Important data, results, and insights can then be communicated back to an enrollee's entire healthcare team. Remote patient monitoring and artificial intelligence (AI) driven systems are capturing and creating near real-time patient information and analyses. These new insights allow providers to enhance their delivery of whole-person and data-informed care. Similarly, digital engagement tools enable care managers to target their outreach to enrollees to when the enrollees may be most receptive to, and benefit from, additional support.

Harnessing Data-Driven Insights for Providers

States should recognize that providers are a primary investor in technologies and products that help bolster the productivity of their clinical and care staff by reducing administrative burdens such as charting, coding, and reporting. For example, a federally qualified health center (FQHC) serving enrollees in rural Georgia utilizes a virtual scribe system across their clinics, in which a specially trained scribe is connected to a physician via videoconferencing to take live notes during the visit. This allows the physician to focus more on patient care rather than documentation, improving both patient and provider satisfaction with their experience. However, the FQHC cannot use Medicaid funding to support the implementation or ongoing cost of this administrative tool, despite its benefits to enrollees and providers. To proliferate these high-value, provider-lead models among the Medicaid provider network, states need to develop mechanisms for providers to have sufficient resources to make these investments, and for MCOs and states to harness the resulting data as a part of their statewide technology initiatives.

Providers generate an immense amount of data on their patients for states and MCOs. An average hospital is able to generate 50 petabytes of data per year – roughly equivalent to twice the amount of data housed within the Library of Congress – across clinical results, free text notes, clinical imaging, readings and lab results.[40] While physicians and larger hospital systems are generally able to record, track, and analyze that data using their electronic medical record (EMR) systems, other providers, particularly behavioral health and long-term services and supports providers, lag behind in their adoption of those technologies.[41,42] As a result, these providers have also been left out in advances in EMR-based data standardization, workflow improvements and clinical decision supports, and data analyses. For states to drive the provision of data-informed care across all of their Medicaid service lines, they need to ensure that long-term care and behavioral health providers are given the financial and technical supports needed to adopt these systems now.

Even providers with robust EMRs still generally lack data and insights into the Medicaid services patients receive from other providers. These silos are particularly concerning for the care management needs of individuals with disabilities, behavioral health disorders, or other complex, chronic conditions. Over a quarter of Americans have multiple chronic conditions, which extensive research has linked to poor care coordination and worse health-related quality of life, higher health care costs, and increased risk of death.[43,44] When systems are put in place to facilitate the integration of health care data and delivery, particularly across physical and behavioral health care, providers and payers have seen precipitous drops in emergency department and in-patient hospital utilization, improved patient outcomes, and lower overall costs of care.[45,46]

States should facilitate technology solutions that aggregate, analyze, and share actionable data with providers to promote the delivery of high-quality, whole-person care for Medicaid enrollees across their entire care team. Several states and local communities have successfully partnered with their MCOs to develop community information exchanges, health exchanges, and real-time data dashboards to help coordinate complex health and social care needs among residents.[47] Among the lessons learned from their experiences is that these data exchanges and reporting systems must be developed collaboratively so that they best meet providers' needs and capacity to integrate and utilize data. A one-size fits all approach will not equitably benefit all Medicaid providers.

UnitedHealthcare has developed an array of unique technology solutions to ensure providers have access to data they can integrate with their existing systems. For example, UnitedHealthcare has begun sharing data related to healthcare delivery and outcomes that can be integrated natively into large hospital systems' existing EMR systems. They can also help smaller providers navigate external dashboards to gain insights into demographic and key performance metrics. States should incorporate opportunities to partner with UnitedHealthcare and other MCOs to leverage these existing resources and provide technical assistance to engage providers at all levels of experience.

Technology-Driven Workforce Enhancements

In addition to easing administrative burdens, technological advances are helping improve healthcare service delivery by creating new efficiencies and capturing and analyzing new patient data to inform care decisions. Remote patient monitoring (RPM), digital therapeutics, and other novel digital or smartphone enabled technologies provide valuable information about individual's health status while they are at home. These technologies are especially useful in monitoring individuals with chronic health conditions. For many of these individuals, having dedicated in-person healthcare professional monitoring isn't necessary. Instead, the data provided by RPM solutions monitors trends in their condition or provides alerts on how emergent changes can help facilitate timely and data-informed healthcare decisions by the individual's care team. However, currently only around half of states permit Medicaid reimbursement for remote patient monitoring services, and generally only with significant restrictions on the patient conditions or provider types allowable.[48]

Further, comprehensive real-time data on patients' health status and care experiences, paired with predictive analytics and clinical decision-making support tools, create new insights into patients' unmet needs for providers to act on. Predictive analytics utilizes data and machine learning algorithms to identify patterns and trends within vast datasets, such as an EMR with integrated remote patient monitoring data. Examining clinical data, socioeconomic information, and environmental variables can allow for providers to identify individuals who are more likely to develop certain health conditions or experience poor health outcomes and help aid with accurate and timely diagnoses. This can in turn increase providers' time for engaging with patients and remaining fully present during the appointment.

Digital engagement tools designed to support care managers analyze enrollees' data across these datasets as well, looking for trends or pivotal moments where the enrollee could most benefit from additional support from their MCO. For example, shortly after an enrollee is discharged from an inpatient hospitalization, a digital care management tool could automatically send them a text message prompting them to schedule a follow-up primary care appointment with a nearby provider. Not only is this message helping the enrollee follow their post-discharge plan of care, but it also helps ensure they are connected to community providers who can best meet their needs, reduces inpatient or ED utilization, and reminds enrollees that they can reach out to their MCO care manager if they need additional assistance. This is an efficient way of ensuring enrollees' needs are being met. However, current state policies and audit standards have limited plans' ability to implement these solutions.

By consulting with MCOs and providers who are interested in implementing AI-driven analytics and clinical support tools, state Medicaid agencies can ensure their policies and programs support efficiencies and innovation, without compromising enrollee protections. Removing the burden of documenting, aggregating, and analyzing the immense volumes of clinical data generated across an individual's care team will not only help healthcare workers refocus on providing the best patient care experience, but also provides them with new information and insights to inform the care provided. Healthcare workers would be empowered to deliver quality care leveraging their specific skills, knowledge, and expertise at the top of their scope of practice and maximizing their utility to the Medicaid program overall.

On-Demand Support for Complex Care Populations

CareBridge provides virtual 24/7 care access to individuals living in their home who have complex medical needs, particularly individuals with disabilities and frailty. Individuals, or their caregivers, are provided a tablet or app that connects them to an interdisciplinary care team of community health workers and clinicians to provide on-demand support. Their platform also aggregates data from a variety of sources to create a complete and real-time view of the individual's and their caregiver's needs. Then CareBridge analyzes the data to support care planning and decision making related to the individual's unique needs. Their model embraces "empowering alternatives" that promote independence and outcomes and reduce costs for states and MCOs such as adaptive technology, durable medical equipment, rehabilitation, and caregiver training and supports.

IV. Equity

The Medicaid program serves a variety of vulnerable and underserved groups, making efforts to address health equity critical tasks for all state Medicaid programs. Medicaid enrollees include low-income children and their families, seniors, and individuals with disabilities. These enrollees tend to experience broader and more intense health needs, often exacerbated by poverty, unemployment, and other socioeconomic factors.[49] Medicaid enrollees have poorer health status and higher rates of chronic illness compared to those with private insurance, even among only low-income enrollees.[50]

More than half of adult enrollees and six in ten child enrollees are from racial or ethnic minority backgrounds and have historically reported poorer health outcomes and higher rates of unmet or delayed care.[51] Medicaid also covers a broad range of long-term care services often not covered by other payers – with one in ten enrollees qualifying for the program based on disability. Individuals with disabilities in particular experience disparate health outcomes and poor access to care, often reporting higher rates of chronic diseases coupled with lower odds of receiving preventive care.[52,53]

Having access to comprehensive and accurate data is fundamental to a Medicaid program's ability to identify and address these inequities. Moreover, the capacity and intention to proactively act on the insights robust data produces is critical. However, persistent technology gaps, trepidation to share data, and limited resourcing all contribute as notable barriers towards Medicaid's ability to utilize data to its full potential. To address these barriers, states, in collaboration with their MCO, CBO, and provider partners, must develop concerted, intentional strategies on how Medicaid programs will better collect, share, and act on data.

Collection of Data

State Medicaid programs struggle to collect high-quality demographic data that can inform equity strategies. While all state Medicaid programs attempt to collect race, ethnicity, and primary language information on their applications, the completeness and accuracy of these reported data vary by state.[54] Collecting additional sociodemographic information, like Veteran status, can aid in better understanding enrollees and improve engagement. In addition, it is important to capture enrollee preference for mode of communication, which varies. Some individuals may prefer to communicate in an online format, while others prefer paper notices.[55] With this information, state Medicaid programs can improve the enrollee experience, which can lead to increased access to care.

The way each state collects, categorizes, and stores data significantly varies. For instance, the categories and nomenclature states use to collect race and ethnicity data on Medicaid applications often differ from other states and from the federal Office of Management and Budget (OMB)'s racial and ethnic data reporting standards. One review of 50 states' Medicaid applications found states use from 5 to 37 race categories and 2 to 8 ethnicity categories, with 62 unique race categories in total.[56]

Significant variation also exists in the quality of states' Transformed Medicaid Statistical Information System (T-MSIS) data. T-MSIS uses cloud infrastructure services for advanced data processing, security, and storage to collect enrollee-level data. This data includes health care use, demographics, and enrollment data for Medicaid and CHIP enrollees in all states and territories. While T-MSIS is the largest national resource of enrollee information, there is heterogeneity among the collection of data that limits the potential for cross-state comparisons and holistic analysis.[57] Notably, standardizing access measures including provider type definitions, use of services, and enrollee perceptions and experiences can address some of T-MSIS' current limitations.[58]

Self-reported race and ethnicity – which is the primary data used in Medicaid and CHIP – can lead to a misleading range of responses.[59] Federal standardization is needed to address and better enable use and analysis of this data. MACPAC has recommended CMS to provide states with an updated streamlined model application that states can leverage for their own Medicaid applications – which includes updated questions designed to maximize response to gather race and ethnicity data.[60]

Another central complicating factor inhibiting equity data collection is mistrust of state actors by marginalized populations. Applicants may also not understand how to best respond to such questions, especially if pre-determined categories do not align with how the applicant self identifies.[61] Thus, a cornerstone of any successful technology intervention aimed at improving health equity is the establishment of trust and clarity between data stakeholders. States should communicate to enrollees on how they plan to use race and ethnicity data to inform initiatives that advance equity and reduce disparities.[62]

MCOs should also be seen as critical partners in improving the quality of race and ethnicity information and carrying out corresponding initiatives to address identified inequities. MCOs have multiple touch points with an enrollee given their care management responsibilities, screening efforts, and population health initiatives, and can be critical brokers in developing trust to facilitate improvements to race and ethnicity information. MCOs can also work with providers to further strengthen the quality and accuracy of data and ensure it is consistent.

States should also ensure MCOs have access to high quality, standardized information from 834 enrollment files, which are used to transmit eligibility and enrollment information with health plans, including race and ethnicity data. Currently, enrollment file demographic information is often un-standardized with outdated terminology and categories. CMS should work with states to ensure such information is inputted into the 834 files in a standardized way, using a standard code set. High quality race and ethnicity information through 834 files can better inform MCO intervention efforts to address disparities, in collaboration with states.

In essence, states and MCOs should exercise bidirectional sharing of data streams to improve the accuracy and completeness of race and ethnicity data. As has been previously mentioned, modernizing enterprise systems through a renewed CMS focus on the MITA framework can also facilitate more robust data sharing with MCOs.

Sharing of Data

Health and social needs data often exists in silos, with limited ability to integrate and develop a "whole-person record" for an enrollee. Critical to addressing health inequities is understanding the comprehensive nature of enrollee needs, including their physical, mental, and social needs. This focus enables states and MCOs to address upstream, preventable determinants that may be driving health outcomes, such as lack of access to nutritious food contributing to poor diabetes management.

Irrespective of the benefits of data sharing, hesitation to share data between internal state agencies persists. Privacy and legal concerns contribute to well-intentioned misperceptions on what can and cannot be done with data as well as what should and should not be done. Thus, there is a tension between the whole-person holistic approach to

Community Information Exchanges: The Future of Data Sharing

CIEs consist of an integrated technology platform that is enabled to connect disparate clouds of health and social needs data. Several states have implemented or are exploring the use of CIEs, including Hawaii, Pennsylvania, Virginia, California, and Washington. The Office of the National Coordinator for Health Information Technology (ONC) has also supported an SDOH Learning Exchange Forum to spur ideation and development of CIEs. Key components of a CIE include:

- Enhanced, cross-sector data sharing: A CIE will match, link, combine, and consolidate health and social data records, developing a comprehensive, whole-person record.
- Resource directory: The CIE will leverage a comprehensive directory of health and social services for providers.
- Bi-directional, closed loop referrals: Participants in the CIE can send, accept, and decline health and social service referrals to and from each other and track in real time referral status, program enrollment, and ultimate outcomes.
- Population level planning: Insights generated from the CIE will allow community stakeholders to identify resource gaps at the community level to inform future policy.

coordinated care that Medicaid strives to achieve, and the mindset adopted by those that possess relevant data necessary to achieve that holistic approach. In developing a comprehensive technology strategy, states must proactively solution for these concerns. Specifically, states must take the time to understand the legal, privacy, security requirements necessary to share data, including use of robust data sharing agreements that clearly set expectations for all parties sharing data.[63] Most importantly, strong, top-down buy-in is needed from governments to spearhead data sharing initiatives.

Sharing of health and social needs data should extend beyond interagency partnerships to external partners in the community, including CBOs, providers, and MCOs. **Community Information Exchanges (CIEs)** represent the future of this approach and offer the opportunity for seamless integration between the health system and CBOs, which can lead to a greater understanding of health and wellbeing at both individual and population levels. Providers can easily see a patient's social data in order to better understand key social drivers of the patient's health, among others, as well as if they accepted a referral to a resource in their community. Decision-makers can use the data generated from CIEs to understand which interventions are being utilized, efficacy of interventions, resource gaps, and the needs of their community in a more holistic manner.[64]

Translating Data Insights into Action

Efforts to effectively collect quality data and enable robust data sharing lead to generation of actionable data insights that inform targeted interventions. However, for data to truly be an effective tool to address inequities and broader gaps within the Medicaid program, there must be state capacity to act on these data insights. Consequently, states must be empowered to express an intent and overarching goal for how they are using data, to ultimately translate insights into concrete actions.

Developing Trust-Based Relationships Through Data

Trust within the healthcare system, particularly among historically underrepresented and underserved individuals, is notably low. Cultural, linguistic, and demographic data can play a critical role in better understanding and connecting with individuals, fostering trust-based relationships and enabling MCOs, providers, and states to converge on how to best tailor health care delivery needs that meets underrepresented populations where they are.

MCOs and the innovative technology vendors they work with can be leveraged as instrumental partners to states on both planning and execution of data-informed strategies and development of trust-based relationships. Reema Health and its partnership with UnitedHealthcare is a key example of a vendor solution acting in such a capacity on behalf of MCOs. Reema employs advanced analytical capabilities to translate data insights into meaningful connections with enrollees, as described in the box on the right.

More broadly, as the Reema example indicates, technology can bolster trust to create meaningful interventions that resonate with individuals and extend access points for proactive care.

Data Dashboards and Closed Loop Referrals

Another way UnitedHealthcare has taken significant strides in leveraging data-driven solutions to reduce health disparities and foster a more inclusive health system is through the creation of comprehensive dashboards that compile and analyze demographic and socioeconomic information and healthcare claims data. These dashboards enable UnitedHealthcare to successfully identify and track underserved populations and review performance on key measures, such as diabetes management through HbA1c levels. Critically, these dashboards can also identify resource constraints within the social safety net to inform UnitedHealthcare community investments.

In identifying needs, UnitedHealthcare employs a closed-loop referral system to refer patients to specialized services or interventions and can efficiently communicate and monitor the patient's status. UnitedHealthcare then reaches out to the member and inquires if their needs were met. Notably, closed-loop referrals reduce fragmentation in care delivery through maintaining and consistently sharing patient data, medical histories, and treatment plans. This not only leads to more accurate diagnoses and tailored interventions, but also enhances patient safety by minimizing redundancies, and reducing the risk of information loss or miscommunication.

MCO partners bring the technical expertise required to harness data effectively, align it with administration goals, and aid in translating data-driven insights into actionable policies. Consequently, MCOs should work collaboratively with states to develop concerted plans to collect, share, and act on health inequities within a community.

Reema Health: Blend of People and Technology

Reema Health is an SDOH-focused vendor solution that works with health plans to deploy Community Guides to personally conduct outreach and engage with high-risk, hard-to-reach enrollees. These Guides, which operate in a capacity similar to a Community Health Worker, leverage proprietary data models to identify how to best conduct outreach to the member and address social and health challenges, such as signing up for benefits, traveling to get groceries, or attending medical appointments. Specifically, Reema Guides leverage data to develop authentic, trust-based relationships with enrollees and ensure their needs are being met. Continuously learning data models not only shape and tailor outreach to the specific enrollee, but also can anticipate when enrollees might become high-risk to inform proactive engagement.

Enrollee Outreach

Finally, it is important to note that certain federal statutory and regulatory requirements can interfere with deploying certain interventions after identifying the necessary population of interest through data. Notably, the Telephone Consumer Protection Act (TCPA) significantly restricts the methods of outreach MCOs can conduct for care management purposes, such as conducting a health risk assessment or following up after a primary care visit via an automated text message.[65] However, states that use MCOs to communicate with enrollees can use text messages if they ensure TCPA compliance and obtain consent. States can do so in various fashions, one of the simplest being adding a clause with consent language to their Medicaid applications as part of the enrollment process.

States can also look to other innovative approaches to improve communication efforts, such as adapting open-source tools and service models. Currently, U.S. Notify, a digital multi-channel notifications service that allows benefits program staff to send customized text messages, is being piloted by the federal government.[66] Through the newly formed Public Benefits Studio, the Technology Transformation Services (TSS) at the U.S. General Services Administration (GSA) is aiming to collaborate across public benefits programs to develop shared technology tools and best practices.[67]

As the Federal Communications Commission has provided additional flexibility for outreach during the COVID-19 unwinding, the federal government should review its authorities to provide the additional flexibility that may be needed to better enable states, MCOs, providers, and benefits programs to leverage technology to improve care delivery of the enrollees they serve.[68]

V. Key Roles and Actions to Advance the System

It is clear that states must have an overarching strategy to technology to truly address challenges in access, workforce shortages, and health inequities. **Consequently, states and their stakeholder partners must develop an intentional, deliberate technology strategy to inform how technology improvements and innovations can be best deployed to meet the needs of the enrollees the Medicaid program serves.**

To that end, the technology strategy should reflect the diverse perspectives and needs of states, enrollees, MCOs, providers, and vendors, with support from the federal government. Below, we highlight the key perspectives and recommendations of each partner that should be considered to ensure the success of the strategy.

States

States must act as the convenors of efforts to develop a comprehensive technology strategy and identify the overarching pressure points that must be solved for. For example, the state may want to improve their ex parte renewal process, better support direct care workers, or better integrate SNAP and Medicaid eligibility data. Informed by their stakeholder partners, states must lead in defining the broad contours of outcomes to be achieved through a concerted technology strategy.

Most critically, this involves states investing the necessary expertise internally to help guide these efforts and working collaboratively with contractors to scope, design, and deploy technology solutions. For example, states and tech vendors can consider adapting an ITN procurement process, as described below.[69] Strong state leadership is also necessary to break down silos and help guide cross-agency initiatives.

Moreover, a state's regulatory and legislative environment should not impede innovative technological efforts. For example, we anticipate continued state legislative focus on moderating the use of AI models; several states in 2023 legislative sessions have introduced bills that prohibit certain discriminatory processes related to use of AI.[70] While certain moderation of AI, including prohibition of discriminatory practices, is critical, states and stakeholder partners should assure that other future efforts do not impede on the capabilities of AI to improve care delivery for enrollees. An intentional technology strategy can help inform state legislators of the benefits and planned uses of AI to proactively address concerns.

Redefining Procurement Practices

The Invitation to Negotiate (ITN) process in state government procurements offers a promising avenue for creating more collaborative and effective solutions with tech vendors. An ITN is a type of procurement process in which the government organization soliciting services first engages in discussions with a prospective contractor that can then lead to an actual offer and agreement.

The utilization of ITNs enables state agencies to engage vendors in meaningful discussions that aim to address specific challenges. For instance, imagine a scenario in which a state's E&E system needs enhancement to align with new regulatory mandates or improve access to Medicaid services. By using the ITN process, the state can actively collaborate with vendors to explore solutions tailored to these requirements. This approach ensures a deeper understanding of the project's nuances and user needs, resulting in a solution that better aligns with the objectives.

Taking inspiration from Colorado's experience, the state's successful adoption of ITNs for projects like the Sales and Use Tax Simplification System (SUTS) demonstrates the benefits of involving stakeholders in defining outcomes and selecting vendors. Such involvement builds stakeholder confidence in the procurement process and secures their investment in the project's success. This approach not only ensures that the selected solution aligns with the stakeholders' needs but also establishes a stronger partnership between the state and vendors.

Enrollees

Medicaid enrollees are ultimately the individuals benefiting from technology innovations, such as through an easier process to enroll in coverage, having access to more available providers, or receiving certain targeted population health interventions. Enrollees must continue to communicate with their states, MCOs, providers, and CBOs on their day-to-day challenges within the healthcare ecosystem and experiences with technology innovations.

There are also opportunities for formal feedback directly to the state, such as through the federally mandated monthly Medicaid Advisory Committee meetings each state manages. Of note, the recent Medicaid Access Proposed Rule requires states to establish an enrollee advisory group with cross over membership with the Advisory committee to better engage enrollees and understand their perspectives to inform state Medicaid policy.[71]

Federal

The federal government should continue to serve as a key enabler and amplifier of state activities – through financial resources, technical assistance, and standardization. For example, CMS should remind states of the available enhanced 90% FMAP funding they have to develop their eligibility and enrollment IT systems,[72] and provide guidance to ensure states are able to access these funds. CMS should also continue their efforts to update the MITA Framework, to better guide states on their modernization efforts. CMS can also explore offering additional planning grants to states to provide them with the resources necessary to develop a comprehensive technology strategy.

Federal standardization can also help address the significant variation in regulatory requirements observed at the state level and help streamline implementation and utility of certain technology solutions. For example, states often apply generalized, non-healthcare related security standards to Medicaid systems, with separate state procurement offices choosing standards often without context or healthcare expertise. Security frameworks are consequently misapplied to healthcare, leading to inefficiencies and high costs. Varying standards at different levels - from the industry to the state - clash with each other, hindering the ability for states to modernize and MCOs to partner with states on creating technologically innovative solutions.

More broadly, the variation in regulatory requirements and constant influx of new requirements across states underscores the need for standardized guidelines. For example, an MCO in multiple states must continuously manage ever-changing regulatory requirements, where even minor regulatory modifications can amass into resource-draining enterprise-wide changes. Such incremental regulatory changes add limited value and instead draw time and energy away from more intentional, system-wide modernization efforts. To the extent possible, top-down standardization from CMS is needed to minimize the use of misapplied security frameworks and significant variation in regulatory requirements.

Finally, the federal government should continue to invest in enrollee access to technologies, including telehealth modalities. As such, efforts to invest in broadband, such as through the $42.45 billion appropriated to broadband investments under the Broadband Equity Access and Deployment Program (BEAD), should continue, focusing on unserved and rural areas.[73] Other efforts to finance cellphone or Wi-Fi subscriptions, including the Lifeline program, should also continue.[74]

MCOs

MCOs should act as key partners to states in ideating, developing, and implementing a comprehensive technology strategy. As private market companies that have honed their innovative practices through competitive procurements, MCOs can provide robust technical assistance to states in developing intentional strategies. For example, as noted in the Workforce and Equity sections, MCOs employ advanced analytical capabilities and leverage unique vendor solutions to address key challenges within the Medicaid program. These same capabilities can inform how states themselves craft and deploy their technology strategies.

MCOs operate at a unique intersection with all stakeholders within the Medicaid ecosystem, including payment to providers, care management and coverage to enrollees, referrals to CBOs, and effectuating contract requirements from states. This unique perspective should be leveraged in technology strategies. For example, bidirectional data sharing informed by an MCO's multiple touch points with an enrollee can improve the quality of race and ethnicity data for states to act on. In the same vein, MCOs can conduct personal outreach to enrollees to help renew coverage.

Providers

Providers notably will be able to identify key gaps within their practices that technology can help bridge, such as those outlined above that help improve provider efficiency and complement care delivery methods. Providers should educate state Medicaid agencies and MCOs on their specific technology needs, which can inform state technology strategies.

Given their relationship with Medicaid enrollees, providers and CBOs can also identify key friction points related to access, workforce, and equity that states and MCOs may otherwise miss. These friction points can also inform state technology approaches. For example, a provider may identify difficulties an enrollee has in applying for SNAP benefits, which can inform state approaches to improve their integrated eligibility and enrollment systems. Like MCOs, these stakeholders can also leverage their relationships with enrollees to conduct outreach and ensure enrollees enroll and remain in coverage.

Tech Vendors

Vendors deploying technology solutions should offer their own technical expertise to states to inform the crafting of a comprehensive technology strategy. Vendors should engage in dialogues with states to better understand how a particular procurement requirement or regulatory change impacts operations. Collaborative, bidirectional relationships between vendors and states where both parties are invested in the acute, operational tasks and broader policy and programmatic goals can be more effective in deploying technologies that drive towards positive outcomes. To that end, a movement of procurement practices towards ITN arrangements described above can help facilitate these types of relationships.

Conclusion

Rapid and continued innovations have positioned states at a crossroads in how they will best leverage technology to address Medicaid program challenges. We have identified the key opportunities where technological advancements can address gaps in access, workforce shortages, and health inequities. As we have argued, implicit to successfully deploying technology in each of these areas is the need for a comprehensive strategy that provides a roadmap to states in how technology will advance the goals of their Medicaid program.

States encounter significant barriers to developing such strategies, including limited capacity, competing objectives, and short-term incentives. However, states are not alone when it comes to developing such strategies, and as outlined in this section, there is a critical role for every stakeholder to play in supporting states in these efforts. As technology continues to advance, vested stakeholders, including MCOs, remain poised to partner with states to harness ever expanding potential of technological solutions.

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