



September 25, 2026

Aaron Blackshire
The Centers for Medicare & Medicaid Services
7500 Security Boulevard
Baltimore, MD 21244

Dear Mr. Blackshire,

On behalf of the nation's Medicaid Directors, the National Association of Medicaid Directors (NAMD) is writing in response to the [Medicaid Enterprise Systems \(MES\) IT Standards - Request for Information \(RFI\)](#).

As CMS reviews our comprehensive response to this RFI, we encourage our federal partners to consider both the technical and process challenges that impact Medicaid systems modernization efforts, as well as the interrelated policy frameworks, state/territory budgetary and procurement cycles, and coordinative elements across multiple federal and state/territory partners that affect systems priorities, investments, and ultimate outcomes. We also encourage CMS to spotlight its learnings from the agency's decade-long work on modernization, modularity, and interoperability, including insights gleaned through previous RFIs. Medicaid agencies are eager to benefit from CMS' learnings and insights gathered over the life of this work and how that body of learning will inform the next phase of the MES IT Standards initiative.

NAMD appreciates CMS' consideration of Medicaid agencies' perspectives, specifically on the matters in this RFI directed to Medicaid agencies, and CMS' continued dialogue with our members. In responding to the specific questions in the RFI, two key principles underpin all aspects of NAMD's comments:

1. **State and territory Medicaid programs have a shared, and unique, responsibility with the federal government to ensure technology delivers results and makes effective use of taxpayer dollars.** Medicaid is administered as a federal and state/territory partnership, with states and territories contributing a significant share of program costs. While the federal government bears a larger share of technology investments, states and territories contribute a consequential portion of those costs as well. States and territories also hold the technology vendor contracts and are ultimately accountable to policymakers, providers, and the public for system performance. Therefore, states and territories have a unique role in partnering with the federal government to develop new federal standards not only to ensure technical soundness, but also to ensure this technology can be procured, funded, staffed, and sustained within the constraints of each state and territory budgetary footprint and programmatic landscape.
2. **Medicaid agencies are eager to collaborate with their federal partners to disrupt the longstanding "first dollar" phenomenon in which all 56 programs separately pay to develop substantially similar capabilities to meet the same federal requirements.** By supporting reusable, modular solutions that can be scalable across states and configured within state and territory systems, CMS can reduce duplicative spending and conserve the limited time,

funding, and staff capacity of Medicaid agencies. This approach, which focuses on scaling solutions rather than simply mandating a standard, will disrupt this phenomenon of first dollar costs while preserving essential flexibility for states and territories to administer their programs in their unique contexts.

As CMS uses the information gathered through this RFI to identify and analyze the current MES landscape, Medicaid agencies encourage CMS to pursue a multifaceted approach that builds the capacity of state and territory technical workforces, advances the adoption of modern software delivery practices, and equips agencies to independently assess whether vendor solutions meet a consistent federal baseline. These investments will help ensure that the standards developed in subsequent phases are practical, sustainable, and responsive to the operational realities of Medicaid programs.

Our detailed response follows, but we would like to underscore three recommendations in particular:

- **Expand access to CMS' internal Advance Planning Document (APD) repository to Medicaid agencies** to facilitate safe and secure APD sharing between states and territories.
- **Publish and open-source Medicaid reference implementation first with an automated test suite**, co-created with agencies, that expresses any new standards and policy logic as code and allows states and territories to evaluate vendor deliverables against a federal baseline.
- **Provide cross-functional technical assistance (TA)**. TA that addresses technology or policy in isolation leaves one of the most complex and costly aspects of modernization unresolved: coordination among policy and technology teams, federal and state partners, and third parties.

NAMD appreciates CMS' consideration of Medicaid agencies' perspectives and the continued dialogue with our members. We remain committed to serving as a trusted partner to CMS and look forward to continued collaboration on behalf of all state and territory Medicaid agencies.

About NAMD

NAMD is a professional community of state and territory leaders who provide health insurance to almost 75 million individuals and families through Medicaid and the Children's Health Insurance Program (CHIP) in each of the 50 states, the District of Columbia, and the U.S. territories. NAMD elevates thought leadership on core and emerging policy matters, amplifies the experience and expertise of Medicaid and CHIP leaders, supports state programs in continuous improvement and innovation, and optimizes federal-state partnerships to help millions live their healthiest lives. In addition to supporting Medicaid Directors, NAMD serves over 500 Medicaid leaders and convenes subject matter experts in finance and budget, technology, eligibility policy, and communications to share operational expertise, support policy implementation, and exchange promising practices across states and territories.

NAMD's Chief Information Officer (CIO) Affinity Group brings together the senior leaders responsible for setting and implementing the IT systems strategies of all 56 Medicaid programs. The group is designed to position and empower these leaders to drive innovation and advance high-performing Medicaid programs. NAMD staff host monthly calls, provide timely federal updates, facilitate the exchange of promising practices, and solicit member input on federal initiatives such as this RFI. CMS frequently participates in these calls, and NAMD would welcome additional opportunities to provide a platform for CMS to engage directly with state and territory Medicaid technology leaders.

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RFI Questions

SA-1: From a state perspective, what are the most significant technical and operational barriers you currently face in achieving MES interoperability and modularity? Please provide specific examples related to system integration, data sharing, or vendor management.

State and territory Medicaid technology leaders face a range of technical, operational, workforce, and market barriers to achieving MES interoperability and modularity. Addressing these barriers requires more than technical solutions. It also requires realistic timelines, sustained funding, specialized expertise, a competitive vendor market, and coordinated adoption across the Medicaid ecosystem. Based on NAMD's observations and feedback from its members, some of these key barriers include:

- **Federal requirements and timelines.** Sometimes, statutory and/or CMS requirements can be complex, conflicting, or may require implementation timelines that don't reflect the resources and sequencing needed for large-scale system changes. This may require Medicaid technology leaders to implement multiple system changes simultaneously or pause planned modernization work to redirect limited staff, funding, and vendor capacity toward an emerging federal policy requirement. One example of an implementation challenge occurred during the Affordable Care Act era eligibility systems work that did not fully account for the distinction between individual and household *ex parte* eligibility processes in eligibility systems. While these designs originally passed CMS certification, several states had systems that were not applying federal policy correctly despite the system itself being certified by CMS. This had lasting impacts even a decade later as Medicaid agencies managed the unwinding of the Medicaid continuous enrollment requirement tied to the public health emergency and led to significant systems and operations revisions during an already complex implementation effort.
- **Coordination across federal requirements.** Different federal partners can have different, and at times conflicting, requirements for systems functionality. For example, a Medicaid agency reported restrictions imposed by the Social Security Administration (SSA) on the use of data that SSA considered "SSA-owned," which ultimately delayed the Medicaid agency's planned implementation of an enterprise data warehouse. Although the issue was ultimately resolved with support from CMS, the experience illustrates how differing requirements and interpretations across federal agencies can impede state and territory systems modernization, create uncertainty, and delay agencies in implementing federal changes quickly.
- **Budget and workforce constraints.** Medicaid agencies may lack sufficient funding, staffing capacity, and specialized technical expertise. For example, personnel with experience implementing standards such as Fast Healthcare Interoperability Resources (FHIR) can be difficult to recruit and retain in certain parts of the country (especially rural areas) where there may be the absence of a mature health technology industry. Agencies also expressed challenges with turnover in key personnel employed by vendors leaving with institutional knowledge.
- **Legacy system complexity.** Medicaid agencies are modernizing systems that have been built over decades with layers of policies from different points in time. Managing and untangling these dependencies and integrating new modules can be technically time-consuming, difficult, and costly. Agencies also shared that the different data structures over time, from COBOL era file structures, to tables that aren't normalized, to modern Snowflake implementations, only compound this complexity.

- **Transition and maintenance burdens.** When Medicaid agencies are implementing a new system to replace a legacy system, they may need to operate both systems in parallel to comply with changing federal and state/territory requirements. This can create duplicative work, increase costs, strain limited staff, and introduce challenges with data quality that could negatively affect Medicaid members. Medicaid agencies additionally shared that the cycle of both state and federal administration changes often adds to technical debt and compounds maintenance problems in the future.
- **No standard definition of what constitutes a module.** As Medicaid agencies are soliciting feedback from vendors, vendors who may be selling a “provider enrollment” or “claims” module don’t agree on what those modules do or what their required input and outputs are from a data perspective. This creates additional work for the Medicaid agency in verifying actual vendor capabilities to ensure the vendor’s description of its module matches the system needs. Federal pre-certification programs such as FedRAMP ensure that what is being sold is certified by a cloud security standard. This approach could be considered for the module’s intended functionality in a Medicaid system. If CMS explores this, pre-certification should be balanced in a way that would allow incumbent small businesses to provide solutions while not being overly burdened by a certification process.
- **Limited vendor competition.** Medicaid agencies in smaller states and territories may have few qualified vendors competing for MES contracts. This in turn limits the Medicaid agencies’ negotiating power and technology options. Therefore, platforms and approaches that are tied to a specific vendor may make it difficult to integrate modules from different vendors or transition to new systems.
- **Legal challenges with vendors.** Agencies have shared that vendor disputes over contract awards, as well as delays in approval from CMS of new vendors selected through the procurement vehicles supported by the National Association of State Procurement Officials (NASPO), can disrupt timelines. When a legal challenge prevents a procurement from moving forward then the agency may have no other option but to add the statutorily mandated functionality to a legacy system until the dispute is resolved. This can increase costs, duplicate work, and further delay transitions to more modernized systems.
- **Limited participation from industry partners.** Even as a Medicaid agency pursues the goal of increasing interoperability, they often find that industry partners are working with limited capacity or have little to no incentive to adopt and use interoperable solutions. This low utilization can make it difficult for Medicaid agencies to justify continued investment and achieve the benefits of reducing administrative burden or improving health outcomes that interoperability hopes to achieve.
- **Challenges with coordination.** Effective MES modernization requires sustained coordination across state and territory sister agencies, counties, vendors, providers, managed care plans, and other industry partners. Multiple agencies shared that key CMS information does not reach all relevant parties when the technical implementation may live in a state/territory central IT agency or be wholly implemented by vendors. Differences in technical capacity, governance structures, agency priorities, and implementation timelines can impede integration and data sharing. County-administered programs may create additional complexity because state and local systems must align while operating under different processes and resource constraints. For example, one state shared that one waiver redesign effort required changes to 17 different systems.

Medicaid agencies also shared additional suggestions for CMS:

- **Providing agencies with a platform to share amongst themselves.** Medicaid agencies are building innovative technology solutions that could be leveraged by all states and territories. For example, one state recently built an open-source provider enrollment platform and another state has developed its own program integrity solution powered by AI. Often other agency staff learn about these through conversations at conferences and NAMD learning sessions. CMS has an opportunity to highlight promising practices and encourage other Medicaid agencies to collaborate. NAMD regularly provides a place for states and territories to share approaches and participate in peer-to-peer collaboration, but knowing from CMS what it views as promising practice from both a federal and state perspective would allow NAMD to better support the Medicaid systems ecosystem.
- **CMS providing learnings from the last decade of Medicaid modularization.** States and territories shared that this isn't the first RFI or federal initiative that has been requested on the topic of MES modernization. As CMS reflects on the years of modularization efforts, agencies are eager to hear specifically what has gone well, what has not gone well, and what CMS would approach differently going forward. This type of retrospection could model transparency, continuous learning, and evolving improvement that CMS is encouraging agencies to adopt.

SA-2: Which industry standards (e.g., HL7 FHIR, NIST frameworks, X12) are currently underutilized in your MES but could drive significant cost savings or improvements in beneficiary outcomes if more widely adopted?

Health Interoperability Standards

Despite the Interoperability and Prior Authorization Rule already requiring states and territories to implement multiple FHIR Application Programming Interfaces (APIs), adoption beyond compliance remains a challenge. Because of the aggressive implementation timelines required, some Medicaid agencies have approached the requirement as an API-layer compliance exercise rather than an opportunity to modernize their internal data architecture.

As an initial pilot, Medicaid agencies could support a FHIR router – a shared, centrally maintained translation standard that lets legacy Medicaid Management Information Systems (MMIS) and eligibility systems expose FHIR-compliant interfaces without requiring a full rebuild. This could allow Medicaid agencies to standardize the data and incrementally modernize the connected modules as appropriate for both their internal state/territory and federal MES modernization efforts. This would enable Medicaid agencies to meet federal interoperability requirements faster and at a lower cost than requiring each agency to build and maintain its own infrastructure. CMS could consider accelerating this by publishing an open-source reference for Medicaid FHIR reference implementation that Medicaid agencies could adopt or extend to their own agencies, such as for interoperability within Health Information Exchanges (HIE) as needed.

Agencies also shared that FHIR is not one standard, and federal agencies have diverged in how they implement it. For example, one state shared that a pilot with the U.S. Food and Drug Administration uses a different FHIR resource with a different API directory.

Additionally, Medicaid agencies shared that reduction of complexity between adopting the standards in HL7, the Interoperability and Prior Authorization Rule, and the Office of the National Coordinator for

Health Information Technology (ONC) requirements would be valuable. Common data dictionaries and independent and automated evaluation tools would allow agencies to better evaluate their modernization efforts against federal frameworks, and track against expectations in more agile and responsive ways. In addition, these sorts of automated evaluation tools could be used to ensure that vendors deliver against the appropriate standards in a way that aligns with test-driven development practices.

Privacy and Cybersecurity Standards

Medicaid agencies shared that MES modules and industry standards evolve on different cycles, creating challenges for agencies seeking to ensure that their cybersecurity practices keep pace with emerging threats. Medicaid agencies must reconcile the multiple frameworks (older MARS-E into the new ARC-AMPE) which include a wide range of laws, regulations, policies, and NIST standards as they move forward with their modernization efforts. The evaluation of these systems against competing timelines and workforce constraints means that agencies either must have specialized staff who can respond, or they must run unique procurements.

Business Transactions (X12)

Some agencies shared that eligibility checks still run through the 270/271 transactions, which may not be the most efficient approach. They shared that a standardized FHIR-based approach could reduce vendor costs and easier evaluation of the data. A data dictionary that crosswalks against X12 as CMS commits to new standards and an intentional way to deprecate old standards would be appreciated.

United States Core Data for Interoperability (USCDI)

NAMD has heard from some members that they leverage USCDI and expect FHIR will eventually replace it, but due to FHIR not being implemented across the entirety of their system that they must default to USCDI.

Accessibility and Usability Standards

Accessibility and usability standards, such as the Web Content Accessibility Guidelines (WCAG), would increase the usability of Medicaid systems for both public-facing Medicaid members, caseworkers, navigators, and others who interact with Medicaid. Many federal requirements still reference the older WCAG 2.0 standard, while a separate 2024 Department of Justice rule requires states and territories to meet the new WCAG 2.1 standard. An agency that sets the older standard in its procurement might be out of date by the time it's delivered to the public. A flexible requirement would allow Medicaid agencies to evaluate and meet member needs while being responsive to future accessibility best practices. Overall, CMS should ensure that any standard is drafted to be foundational to each Medicaid program, while allowing for specific Medicaid agency circumstances and realities of the lived experiences of members to shape the end result. A standards-based approach would help facilitate automated testing and evaluation.

SA-3: How can CMS establish technical standards that are specific enough to ensure federal compliance and interoperability, yet flexible enough to accommodate your state's unique policy requirements and legacy system constraints?

As noted in the RFI, there are already standards bodies that are developing various frameworks (HL7, NIST, W3C, among others). CMS should continue to closely partner with these standards bodies and

regularly seek input from these organizations on developing promising practices. This will enable streamlined alignment and reduce conflict in the future as standards naturally evolve to meet new technical advancements.

Medicaid agencies appreciate that CMS provides operational guidance on how these standards interconnect, interact, and could be implemented, and recommend they continue this practice. As outlined in our response to question SA-4 below, a reference implementation that demonstrates policy rules as code would better support Medicaid agencies in their ability to extend systems to meet federal and state/territory policy requirements.

In addition, standards can often break down when they are seen as a mandate. Many sets of standards demonstrate a progressive model that outlines a variety of “acceptance criteria” that provide multiple pathways for meeting an outcome, goal, or standard, rather than rigid rules. This acceptance criteria model would allow for flexibility to meet legacy system constraints and allow Medicaid agencies to follow modernization patterns that meet the unique workforce considerations within the state or territory without having to hire from a limited pool of specialists.

SA-4: What specific types of federal Technical Assistance (TA) (e.g., reference architectures, pre-certified code repositories, implementation playbooks) would most effectively accelerate your state's adoption of new IT standards?

Medicaid technology leaders have expressed that standard and pre-certified open-source code repositories could be beneficial to their agencies, but that there is concern with CMS' ability to maintain and steward this initiative due to staffing and organizational constraints. Medicaid agencies shared that a first step toward this model could be a reference implementation and testing suite similar to the [Office of the National Coordinator for Health's IT, API Testing Suite](#) that allows organizations to evaluate a FHIR implementation from states and territories, vendors, or other healthcare organizations against an automated standard. Adopting a similar model would allow agencies to evaluate vendor-produced and -supplied code against a statutory policy baseline, while allowing agencies to deploy a repeatable model that extends their own standards and regulatory baseline. This would further enable Medicaid agencies to move away from legacy user acceptance testing that creates waterfall software development practices, to a more automated system that better facilitates modern continuous integration and continuous deployment practices, thereby allowing agencies to benefit in the long term and improve vendor accountability.

Some Medicaid agencies shared that when they migrate systems, the binding constraint is rarely data. One agency noted that when they migrated MMIS operations from vendors, they found the X12 implementation was well documented and relatively straightforward – the major hurdle was the thousands of business rules, policy updates, and third-party workflows that are not tied to any standard but have slowly developed over the lifespan of the Medicaid program. Shifting away from the incumbent vendor was more about policy than code, and TA that only addresses the technical aspects of interoperability standards will leave the most expensive part of modernization untouched – the coordination between policy, technology, federal, state, and third parties.

Reference architectures would be most valuable where they express policy logic as code, and give federal, state, vendors, and other partners within the space an inspectable baseline for the requirements

that currently live in institutional knowledge. **An open-source Medicaid standards reference implementation that is co-created with agencies would close a persistent problem where vendors may claim that code is proprietary when it implements standard, non-differentiating policy logic or APIs that every agency needs.** A reference implementation for each module removes this ambiguity and allows agencies to build and extend a common baseline.

This kind of shared, open-source repository can accomplish three objectives:

1. **Provide point-in-time policy history.** A version-controlled reference implementation would allow Medicaid agencies to track how compliant code changes as federal policy evolves, supporting consistent point-in-time documentation and audits.
2. **Prove feasibility through standards-based minimum viable products (MVPs).** A living reference implementation could demonstrate that a policy is achievable with current technology. It also provides a working proof of concept that can be extended to the needs of the Medicaid agency.
3. **Increase vendor competition.** Open-source or non-licensed reference architecture reduces agencies' exposure to increased licensing costs. Vendors provide a true time-and-materials estimate for software connection and implementation. This also increases the ability for agencies with smaller vendor pools, or absent vendor pools, to rely on software implementation partners, rather than specialists.

An open-source website created by CMS (eregulations.cms.gov), which ties together statutes, proposed and final Rules, subregulatory guidance, and implementation resources, has been helpful for CIOs in conducting policy research. Expanding this model to include policy as code would be a natural extension of the great work that CMS has already accomplished.

Lastly, Medicaid systems leaders report that documentation that references and pulls directly from live code – the way modern API and networking documentation typically works – should be used as a best practice for standards-based documentation. This approach can offer concrete examples tied to specific use cases for agencies to raise, and it can stay more accurate than a PDF-based playbook model. A PDF-style playbook model can create confusion when updates are released, and older versions of playbooks are not removed from Confluence or Jira. This can create confusion for Medicaid technology leaders and extra work for Medicaid agencies to ensure they are working from the most current guidance document.

SA-5: How can CMS best integrate standards compliance checkpoints into the existing APD and certification lifecycle without creating unnecessary administrative burdens or delaying procurement timelines?

Some Medicaid CIOs have shared that the new APD processes have been useful to better understand their own systems and hold vendors to a recurring cadence. CMS should build on this by integrating checkpoints into existing APD certification milestones, rather than creating separate review processes or additional documentation requirements.

Agencies identified several existing vehicles that could carry out this work. Standards compliance could be integrated into the Streamlined Modular Certification (SMC) outcomes already part of the process, which are today largely functional and could be extended to include technical outcomes. Checkpoints could also be embedded in existing MITA documentation. CMS could also map APD and certification outcomes together with supporting evidence so both CMS and the agency can see which end results have been met.

Agencies also pointed to phased certification as an approach that has already worked. One agency certified its MAGI population upon completion, then completed a scaled-down certification covering non-MAGI functionality, which helped both funding lines and reporting. CMS should extend this model, with configurable checkpoints along the design, development, and implementation process rather than a singular certification at the end.

As previously noted, agencies were concerned about CMS capacity, and any additional reviews or processes should consider whether it's simply adding a checkpoint or making the process more efficient as a whole. One such way is for CMS to provide state and territory officers with ongoing specialized training and technical expertise on evolving standards and architecture, along with tools to more consistently provide details to Medicaid agencies. Pairing programmatic knowledge with this technical expertise could enable CMS reviewers to provide Medicaid agencies with substantive feedback, identify potential issues early, and add greater value during system demonstrations.

Where CMS pursues demonstrations of working code over document review, agencies asked for flexibility in execution. Not every state development cycle produces something that can be shared in the traditional sense of working software, and CMS should not assume a uniform sprint length across agencies.

Finally, a standards-based approach to systems modernization should facilitate automated checkers as is the standard for cybersecurity, accessibility, and other programmatic requirements. This would allow for real-time visibility in both how systems are built, and ultimately, how they are functioning. Agencies expressed interest in a standard test suite that would allow agencies to run vendor deliverables against a federal baseline before submitting them to CMS. This would allow agencies to iteratively address issues within their code before a lengthier certification process, which could also reduce administrative burden for CMS.

SA-6: What is the most effective mechanism for soliciting continuous state feedback during the drafting and refinement of new technical architectures and standards to ensure they remain practical and relevant?

CMS should consider establishing forums to convene state and territory technology leaders to gather ongoing feedback during the development and refinement of technical architectures and standards. In addition, Medicaid agencies should have the opportunity to share their own working models of code that may serve as a good baseline for future standards work.

This engagement could occur through an agile working group of technologists and builders, technical advisory group, or as noted in the introduction, through NAMD's CIO Affinity Group, which NAMD would

be pleased to offer as a platform for CMS to engage directly with Medicaid technology leaders. Medicaid agencies also shared that the already existing partnerships within the New England States Consortium Systems Organization's (NESCO) Systems Technical Advisory Group (S-TAG) as being of incredible value to technology leaders in Medicaid agencies and could be an additional forum for this dialogue.

Medicaid technology leaders would also benefit from more technical demonstrations of working code, facilitated in an agile way, rather than memos. Whenever possible, CMS should provide products for Medicaid agencies to evaluate rather than relying primarily on written or verbal descriptions of systems. The ability to test functional products would enable Medicaid agencies to identify implementation challenges, integration issues, and unintended consequences earlier in the planning and development process.

Finally, CMS should consider establishing ongoing feedback loops that include relevant external partners and agencies when standards depend on data, systems, or requirements outside the Medicaid agency. These stakeholders may include labor, health care, human services, and other sister agencies, as well as industry partners and Medicaid members. Engaging these stakeholders early and often would help ensure that proposed standards account for cross-program dependencies and can be implemented within states and territories' broader technology environments.

SA-7: Legacy Decommissioning: How can CMS better support states in the secure archiving and decommissioning of legacy mainframe systems during the transition to modular, standards-based architectures?

Medicaid agencies shared that the framing of this question solely around mainframes understates the challenge. While there are legacy mainframe systems, there are other decades-old systems that were never mainframe-based. There are also modernization roadmaps that extend to almost a decade, and a tech stack that was modern in 2019 may not take into account the many new advances in technology. Agencies also emphasized that full decommissioning is not always the goal if the agency is pursuing a strategy focused on goals and business outcomes – which does not necessarily mean retiring every legacy system. CMS support would be most useful if scoped to legacy systems generally rather than mainframe environments specifically.

Agencies have also shared with NAMD that sometimes, modernization timelines do not align with policies, legislative agendas, gubernatorial transitions, or presidential administrations. CMS should support a pilot-based strategy that aligns with this reality. CMS should consider identifying a small cohort of Medicaid programs with aligned modernization timelines. This smaller group could then work through the specific nuances of modernizing a specific modular standards-based system and provide shared learnings to other Medicaid programs that may have similarly constructed systems.

Agencies identified archiving as an area of ambiguity. Medicaid agencies receive little guidance on what must be retained, in what form, or for how long, and must also account for state/territory records retention requirements that were not written for modern system architectures. Absent clear expectations, agencies default to over-retention. For example, one agency described preserving its entire legacy codebase in encrypted storage in case it ever needed to be stood back up. Other agencies questioned the purpose

of archiving and noted that they could not scope the cost or effort without knowing what it is meant to accomplish.

Medicaid agencies also identified some practical supports that would ease transitions:

- **Funding for independent evaluation.** Prior to decommissioning, having support for an independent evaluation would allow agencies to validate replacement systems against both federal and state policies before retiring the system it replaces.
- **Shared archival infrastructure.** Agencies have asked for a federal mechanism for code archiving to reduce ambiguity. Extending this infrastructure broadly to states and territories could provide a standard way for Medicaid agencies to archive code and facilitate a stronger method to request code from vendor partners.
- **A playbook drawn from state and federal agencies that have successfully completed migrations.** Agencies are interested in collaborating on a shared playbook of lessons learned, potentially broken out by state/territory and vendor structure.
- **Flexibility during transition.** One agency that recently replaced its claims processing systems described post-implementation issues affecting federal reporting. Agencies suggested that reasonable accommodation on reporting timeliness during a known replacement period would function as an additional incentive rather than a penalty for attempting to implement systems updates.

States and territories would also like to learn more from CMS' experience modernizing large, policy driven systems. As CMS is also responsible for its own Medicare system modernization and has experience in modernizing these systems, extending this knowledge sharing to Medicaid agencies would allow for a reduction in duplicate effort and allow agencies to build on established learnings from their key federal partners.

SA-8: Workforce & Skills: What workforce skills or training gaps are most prevalent within your state IT teams when adopting modern standards like HL7 FHIR or cloud-native deployments, and how can federal guidance address this?

Medicaid agencies vary considerably in their ability to build internal technical capacity. Medicaid agencies that have a large presence of digitally mature health care providers and insurance companies may have an increased supply of technical talent who are able to take on career civil service roles, and an ability to provide advanced oversight of their vendor partners. This is often a result of investments in local colleges, employers, and technical associations. In turn, these partners have built a healthy pipeline for these skills that fulfill the needs of both senior technical talent and junior technical talent.

In states and territories without a large industry presence, the same talent pool does not often exist. Technical staff with FHIR, cloud-native, or modern architecture experience can be scarce and Medicaid agencies are often competing for talent against private-sector organizations. Agencies then may need to rely heavily on outside contractors and vendors because of the mismatch between technical supply and demand. This was raised as a major issue for rural states, where major for-profit companies can offer higher pay, often outcompeting local state pay bands.

CMS should consider a standard reference implementation (as mentioned in our response to question SA-4) that could double as a technical training tool and sandbox that would allow for a healthy technology pipeline from junior to mid- to senior technology implementers as training can often be cost-prohibitive to Medicaid agencies' recruitment and retainment. Federal guidance could reinforce this in a few ways:

- **Create pilot-based TA and staffing support that meet each agency's unique needs.** Medicaid agencies that are at different digital maturity models need different types of support. CMS' TA should be responsive to the needs of each agency.
- **Support federal-state technical rotations, when appropriate.** CMS provided specific TA during the public health emergency unwinding on improving *ex parte* rates and during the implementation of [Public Law 119-21](#).¹
- **An apprenticeship model to build administrative capacity on these complex skills.** This could be enhanced by building out a program specifically targeted toward early-career or transitioning technologists, such as General Services Administration's U.S. Digital Corps, which has supported CMS' ability to build out its early-career health technology pipeline.

As agencies shift toward cloud-native deployments, vendors are increasingly encouraging them to move from state-hosted infrastructure to commercial cloud services, often citing cost considerations. They also see vendors discontinuing on-premises solutions and pushing cloud-only, which can introduce higher or unexpected licensing and hosting costs. Medicaid leaders would welcome CMS guidance on accounting for these costs and preserving the anticipated benefits of cloud migration across different state and territory organizational structures.

SA-9: Data Governance: How do you currently manage enterprise data governance across multiple modular vendors, and what standards would facilitate a more unified Master Data Management (MDM) strategy?

Enterprise data governance varies by state and territory. Medicaid agencies with combined Health and Human Services agencies manage data governance across a broader, single agency perspective. States and territories with separate departments of Health and Human Services (or other similarly named agencies) need to govern the same Medicaid data across two distinct agency structures with varied ownership lines. Any federal data standard needs to work across both models. Federal standards that prioritize one over the other will create friction that agencies may be difficult to rectify. Beyond the differences in agency models, CMS should consider the following improvements across modules:

- **Establish common, automated standards for API-based data exchanges**, so that validating and approving data moving between vendor modules doesn't depend on manual, state/territory-specific processes that vary by system and Medicaid agency. This has also been referenced in our response to question SA-4 regarding a FHIR reference test implementation produced by ONC.
- **Create standards that facilitate modern observability-based practices**, which would enable modernized MES systems to be more interoperable with program integrity needs and other data

¹ [Public Law 119-21](#) is also referred to as H.R. 1, the Working Families Tax Cut (WFTC) legislation, and the One Big Beautiful Bill Act (OBBBA).

quality tools. Providing Medicaid technology leaders with examples of how one standard could be used in multiple ways would allow for departments and divisions to more easily identify areas of operational improvement in real-time.

- **Leverage the federal government's purchasing power** to expand the data streams available through the Federal Data Services Hub while preserving state and territory flexibility to use a more accurate or reliable data source than mandating the Hub as a default. This could include access to data that is harder to obtain for Medicaid agencies.

SA-10: Procurement Lifecycles: In what ways do current state procurement regulations hinder the rapid adoption of agile, COTS-based modular solutions, and what federal frameworks might alleviate these bottlenecks?

The process that facilitates federal matching funds for systems creates an additional administrative hurdle for Medicaid agencies to work through, in addition to their own state/territory appropriations and procurement lifecycles. This additional complexity is unique to Medicaid systems and creates challenges in moving toward an environment that facilitates agile two-week software development lifecycles when a procurement may be locked in a year, or multiple years, in advance. We appreciate the work CMS has done to date in updating its APD templates, paired with encouraging states to provide working demonstrations of their systems. Medicaid agency CIOs have mentioned that these steps are acting as an additional change management lever to produce more agile software development outcomes.

In light of these dynamics, Medicaid agencies have also shared that instead of hiring technical staff to inform system architecture, they must hire or contract staff to manage the APD process itself. For example, a state recently shared at the Medicaid Enterprise System Conference that they hired a vendor specifically to conduct Analysis of Alternatives, and to survey other states and territories for their approaches to APDs. Concurrently, this has been a frequent topic at NAMD conferences, and a collaborative workshop of Directors and CIOs developed a recommendation to address this issue. Specifically, **NAMD recommends that CMCS extend their internal APD repository to Medicaid agencies to facilitate safe and secure APD sharing between agencies in order to meet federal and state goals of leverage, reuse, and cost reduction.**

Medicaid agencies describe procurement timelines that now stretch to roughly three years from initiation to award. Agencies shared that this reflects the accumulation of sequential review steps, rather than any single bottleneck: agencies must first secure project approval, then submit requirements for security evaluation, which in some states and territories carries no defined completion timeline. CMS' 60-day reviews for both the RFP and the resulting contract can add approximately four additional months (or longer for internal state reviews). Each step is individually reasonable, but the cumulative effect is that the technology environment an agency specified at the outset may have materially changed by the time a vendor begins work. In addition, this lengthy procurement timeline prevents agencies from being responsive to emerging technology as it requires a perception of rework of the above steps.

Several frameworks could meaningfully reduce these bottlenecks:

- **Expand access to CMS' internal APD repository to Medicaid agencies to facilitate safe and secure APD sharing and peer learning during critical planning stages.**

- **Co-operative contract vehicles that other agencies can join.** Where contracts or systems are competitively developed so that other states and territories may join services, agencies could avoid duplicating full procurement cycles for comparable or identical functionality.
- **Establish streamlined APD or I-APD pathways when leveraging a system that is already in use by another Medicaid agency.** As CMS receives an abundance of data from agencies, CMS should leverage and reuse the data across the Medicaid landscape to prevent duplicative data collection.
- **Provide model procurement language and agile transformation support:** Many federal agencies have federal procurement cookbooks that include sample language. Agencies have requested MES boilerplate language that they can incorporate into solicitations, along with templates and practices to move procurements from waterfall toward agile. Agencies have shared that this is difficult in practice as industry examples of Agile don't account for the type of administrative burden that the Medicaid system needs to account for. Agencies shared that organizations tend to fall back to a waterfall pattern under schedule pressure or when there is less flexibility for testing and evaluation.

The first recommendation illustrates a modest change that could have meaningful benefits. During a recent collaborative workshop between Medicaid Directors and CIOs, state/territory technology leaders identified extending CMS' internal APD repository as a modest change for CMS to implement that would be significant for Medicaid systems leaders. This would allow agencies to see how peers have approached similar system investments and see results of analysis of alternatives and leverage and reuse research that their own peers have conducted without rebuilding the research from scratch. Today, absent that visibility, agencies expend significant time and resources on this work – one state recently reported hiring a vendor for the sole purpose of conducting the research for the Analysis of Alternatives and surveying other state and territory APD approaches. A change of this scale would produce substantial savings based on the investment and help CMS and states and territories jointly identify where duplicate first-dollar spending is occurring.

In addition, agencies shared that commercial off the shelf (COTS) products in a shared federal and state/territory policy landscape will always require additional configuration to meet individual state/territory needs. As CMS designs standards to this constraint, CMS should identify areas in which COTS or custom software development may be the most appropriate solution – this would allow Medicaid agencies the flexibility in choosing the most cost-effective means to meet operational and fiscal goals.

SA-11: Data Elements: What specific data elements are currently absent, inconsistently defined, or non-standardized across MES and how do these gaps impede interoperability and data sharing within states, across state lines, and with federal reporting systems, such as T-MSIS? Please describe any known root causes, impacted use cases, and any existing or proposed remediation efforts.

Medicaid agencies report that data element definitions remain inconsistent across MES modules, with one agency identifying T-MSIS as a primary source of the challenge. Many T-MSIS fields are not part of a national standardized claim layout, requiring each state and territory to build and maintain its own mapping. Every mapped value introduces the risk of inconsistent reporting across agencies, meaning national data can be less reliable.

Another agency shared areas with inconsistent or non-standardized data include social drivers of health and non-medical information. This is data that needs to be shared across MCOs, providers, and community-based organizations, and the lack of standards for this data creates silos and vendor lock-in.

Multiple states requested a common data dictionary that could help address this challenge. Other agencies recommended a data dictionary for all source systems to avoid costly rework when elements aren't incorporated early in the system design. This data dictionary could also provide more clarification when agencies have multiple versions of the same terms. As illustrated by differences between SSA and CMS guidance, common data dictionaries could help clarify how data elements are defined and used across federal programs.

SA-12: Enrollment Action: Do your state Maintenance Type Codes and Reason Codes map to a standardized national list? If yes, which one? If not, what challenges or obstacles are hindering standardization?

NAMD has heard that this practice varies by Medicaid agency. Some agencies map Maintenance Type and Reason Codes to the National Maintenance Type Codes (X12 832 ISNS03) and others map eligibility reason codes to T-MSIS, while others map to HIPAA standard transactions while maintaining state-specific fields. A state shared that "...however, some state-specific fields are still required to meet program needs. Certain services—such as social services claims—cannot use standard transactions because NPI is required, necessitating alternative claim formats." This indicates that any standards should accommodate flexibility for specific service program needs.

SA-13: Plan Identifiers: Are there challenges or barriers preventing your Program from exclusively using the National Plan ID or Health Insurance Plan (HIOS) ID to identify Managed Care Organizations (MCO), instead of state-specific plan codes?

States and territories shared that adopting national identifiers for MCOs would require system remediation across all agencies and may introduce challenges for providers who cannot use NPIs, such as social service providers. States and territories suggest that adding national identifiers as supplemental data elements may be more feasible than replacing state-specific plan codes entirely.

NAMD also heard from one state that: "The National Plan ID (HPID) was rescinded by HHS and CMS in 2019. Our state uses the HIOS ID (Health Insurance Oversight System ID) managed by CMS to identify Managed Care Organizations (MCOs)." In contrast, NAMD heard from another state that they were using the National Plan ID with no issues.

SA-14: Error Handling: Would a federally mandated, standard 824 (Application Advice) or 999 (Implementation Acknowledgment) response format improve or complicate your state's reconciliation process with MCOs?

Medicaid agencies have shared varying experiences on this topic. Most agencies shared that they used the 999 response format and mentioned that their existing process works well. They also indicated that mandating 824 would require additional system and process changes with additional cost and unclear benefit.

One state in this category shared that the challenge that they see is that:

1. there are MCOs that manually process the daily 824, and
2. MCOs tend to wait month(s) to do their reconciliation, which can create challenges with other state business processes.

Another state shared that the 824 X12 standards will improve their process and that they are exploring an MDM strategy.

Conclusion

Medicaid agencies appreciate CMS' commitment to building a more unified MES that advances a unified approach to reduce silos, establish consistent standards across similar platforms, and create clear pathways for states and territories to modernize legacy systems without being constrained by entrenched vendor relationships or outdated architectures. Achieving this vision will require standards that reflect the operational realities of Medicaid programs, a clear assessment of lessons learned from the past decade of modernization efforts, and sustained collaboration throughout their development and implementation.

As CMS advances this five-phase initiative, NAMD remains committed to serving as a trusted partner and facilitating meaningful engagement with Medicaid leaders and the CIO Affinity Group. We look forward to working with CMS to build modern, interoperable, and sustainable systems that strengthen program administration and improve the experience of Medicaid members.

Sincerely,



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Georgia Medicaid Director



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NAMD Board President-Elect
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