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September 2020

MEDICAID INFORMATION TECHNOLOGY

Effective CMS Oversight and States' Sharing of Claims Processing and Information Retrieval Systems Can Reduce Costs

GAO-20-179

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GAO Highlights

Highlights of GAO-20-179, a report to congressional requesters

Why GAO Did This Study

The Medicaid program is the largest source of health care funding for America's most at-risk populations and is funded jointly by states and the federal government.

GAO was asked to assess CMS's oversight of federal expenditures for MMIS and E&E systems used for Medicaid. This report examines (1) the amount of federal funds that CMS has provided to state Medicaid programs to support MMIS and E&E systems, (2) the extent to which CMS reviews and approves states' funding requests for the systems and oversees the use of these funds, and (3) CMS's and states' efforts to reduce potential duplication of Medicaid IT systems.

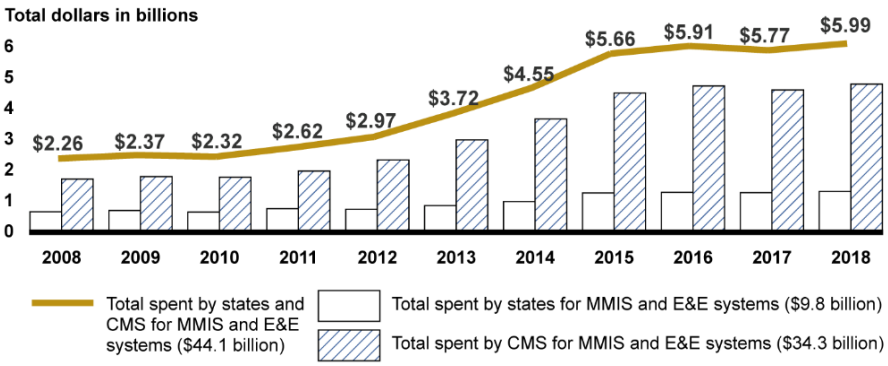
GAO assessed information related to MMIS and E&E systems, such as state expenditure data, federal regulations, and CMS guidance to the states for submitting funding requests, states' system funding requests, and IT project management documents. GAO also evaluated a generalizable sample of approved state funding requests from fiscal years 2016 through 2018 to analyze, among other things, CMS's review and approval process and conducted interviews with agency and state Medicaid officials. GAO also reviewed relevant regulations and guidance on promoting, sharing, and reusing MMIS and E&E technologies; and surveyed 50 states and six territories (hereafter referred to as states) regarding the MMIS and E&E systems, and assessed the complete or partial responses received from 50 states.

View GAO-20-179. For more information, contact Vijay D'Souza at (202) 512-6240 or dsouzav@gao.gov.

What GAO Found

The Centers for Medicare and Medicaid Services (CMS) has reimbursed billions of dollars to states for the development, operation, and maintenance of claims processing and information retrieval systems—the Medicaid Management Information Systems (MMIS) and Eligibility and Enrollment (E&E) systems. Specifically, from fiscal year 2008 through fiscal year 2018, states spent a total of $44.1 billion on their MMIS and E&E systems. CMS reimbursed the states $34.3 billion of that total amount (see figure).

Money Spent by States and Reimbursed by CMS from 2008–2018 for Medicaid Management Information Systems (MMIS) and Eligibility and Enrollment (E&E) Systems



Source: GAO analysis of agency data. | GAO-20-179

For fiscal years 2016 through 2018, CMS approved 93 percent and disapproved 0.4 percent of MMIS funding requests, while for E&E it approved 81 percent and disapproved 1 percent of the requests. The remaining 6.6 percent of MMIS requests and 18 percent of E&E requests were either withdrawn by states or were pending. GAO estimates that CMS had some level of supporting evidence of its review for about 74 percent of MMIS requests and about 99 percent of E&E requests. However, GAO estimates that about 100 percent of E&E requests and 68 percent of MMIS requests lacked pertinent information that would be essential for indicating that a complete review had been performed. Among CMS requirements for system implementation funding is that states submit an alternatives analysis, feasibility study, and cost benefit analysis. However, GAO found that about 45 percent of such requests it sampled for fiscal years 2016 through 2018 did not include these required documents. The above weaknesses were due, in part, to a lack of formal, documented procedures for reviewing state funding requests.

CMS also lacked a risk-based process for overseeing systems after federal funds were provided. CMS provided helpful comments and recommendations to states in selected cases, but in other instances it did not. In two states that had contractors struggling to deliver successful projects, state officials said they had not received recommendations or technical assistance from CMS. The states eventually terminated the projects after spending a combined $38.5 million in federal funds. According to CMS officials, they rely largely on states to oversee

What GAO Recommends

GAO is making nine recommendations to improve CMS's processes for approving and overseeing the federal funds for MMIS and E&E systems and for bolstering efforts to reduce potential duplication. Among these recommendations are that CMS should

- develop formal, documented procedures that include specific steps to be taken in the advanced planning document review process and instructions on how CMS will document the reviews;
- develop, in consultation with the HHS and CMS CIOs, a documented, comprehensive, and risk-based process for how CMS will select IT projects for technical assistance and provide recommendations to assist states that is aimed at improving the performance of the systems;
- encourage state Medicaid program officials to consider involving state CIOs in overseeing Medicaid IT projects;
- establish a timeline for implementing the outcome-based certification process for MMIS and E&E systems; and
- identify, prior to approving funding for systems, similar projects that other states are pursuing so that opportunities to share, leverage, or reuse systems or system modules are considered.

In written comments on a draft of this report, the department concurred with eight of the nine recommendations, and described steps it had taken and/or planned to take to address them. The department did not state whether it concurred with GAO's recommendation to encourage state officials to consider involving state CIOs in Medicaid IT projects. HHS stated that it was unable to discern evidence as to whether a certain structure contributed to a specific outcome. GAO believes, consistent with federal law, that CIOs are critically important to the success of IT projects.

systems projects. This perspective is consistent with a 2018 Office of Management and Budget (OMB) decision that federal information technology (IT) grants totaling about $9 billion annually would no longer be tracked on OMB's public web site on IT investment performance. Accordingly, the CMS and Health and Human Services chief information officers (CIO) are not involved in overseeing MMIS or E&E projects. Similarly, 21 of 47 states responding to GAO's survey reported that their state CIO had little or no involvement in overseeing their MMISs. Such non-involvement of officials with duties that should be heavily focused on successful acquisition and operation of IT projects could be hindering states' ability to effectively implement systems.

To improve oversight, CMS has begun a new outcome-based initiative that focuses the agency's review of state funding requests on the successful achievement of business outcomes. However, as of February 2020, CMS had not yet established a timeline for including MMIS and E&E systems in the new outcome-based process.

CMS had various initiatives aimed at reducing duplication of Medicaid systems (see table).

Description and Status of Centers for Medicare and Medicaid Services Initiatives Aimed at Reducing Duplication by Sharing, Leveraging, and Reusing Medicaid Information Technology

Initiative	Description	Implementation status	Number of surveyed states reporting use of the initiative
Reuse Repository	Used by states to collect and share reusable artifacts.	Made available in August 2017. As of January 2020, CMS was no longer supporting this initiative.	25 of the 50 reporting states
Poplin Project	Was to provide free, open-source application program interfaces for states to use in developing their modular Medicaid systems.	Initiative never fully implemented. As of January 2020, CMS was no longer supporting this initiative.	Three of the 50 reporting states
Open Source Provider Screening Module	Open-source module for states to use at no charge.	Made available in August 2018. As of January 2020, CMS was no longer supporting this initiative.	One of the 50 states reported attempting to use the module.
Medicaid Enterprise Cohort Meetings	A forum where states can discuss sharing, leveraging, and/or reuse of Medicaid technologies.	As of January 2020, Cohort meetings were being held on a monthly basis.	47 of the 50 states reported participating in the meetings.

Source: GAO analysis of agency data. | GAO-20-17

However, as of January 2020, the agency was no longer supporting most of these initiatives because they failed to produce the desired results. CMS regulations and GAO's prior work have highlighted the importance of reducing duplication by sharing and reusing Medicaid IT. To illustrate the potential for reducing duplication, 53 percent of state Medicaid officials responding to our survey reported using the same contractor to develop their MMIS. Nevertheless, selected states are taking the initiative to share systems or modules. Further support by CMS could result in additional sharing initiatives and potential cost savings.

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Abbreviations

APD	advance planning document
API	application program interface
CHIP	Children's Health Insurance Program
CIO	chief information officer
CMCS	Center for Medicaid and Children's Health Insurance Program Services
CMS	Centers for Medicare & Medicaid Services
DDI	design, develop, and installation
E&E	Eligibility and Enrollment System
HHS	Department of Health and Human Services
IT	information technology
MITA	Medicaid Information Technology Architecture
MMIS	Medicaid Management Information System
O&M	operations and maintenance
PPACA	Patient Protection and Affordable Care Act

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September 9, 2020

The Honorable Greg Walden
Republican Leader
Committee on Energy and Commerce
House of Representatives

The Honorable Michael Burgess
Republican Leader
Subcommittee on Health
Committee on Energy and Commerce
House of Representatives

In fiscal year 2019, the Medicaid program financed health care coverage for an estimated 61 million low-income and medically needy individuals. Funded jointly by the U.S. federal government, states, and territories, Medicaid finances coverage for nearly one-quarter of the U.S. population, making it the largest source of funding for health care for America's most at-risk populations.[1] In recent years, Medicaid has undergone steady growth, particularly since the enactment of the *Patient Protection and Affordable Care Act* (PPACA) in 2010, under which states and territories were given the option to expand program eligibility to nonelderly individuals who meet income limits and other criteria.[2]

The Centers for Medicare and Medicaid Services (CMS) provides federal oversight for the Medicaid program, while states and territories administer the day-to-day operations for their respective Medicaid programs. Within broad federal parameters, the Medicaid program allows states and territories significant flexibility to design and implement their programs,

[1]Department of Health and Human Services, *Budget in Brief* (Washington, D.C.: 2018).

[2]Pub. L. No. 111-148, 124 Stat. 119 (2010), as amended by the *Health Care and Education Reconciliation Act of 2010* (HCERA), Pub. L. No. 111-152, 124 Stat. 1029 (2010). For purposes of this report, references to the *Patient Protection and Affordable Care Act* include the amendments made by HCERA. Historically, Medicaid eligibility has been limited to certain categories of low-income individuals—such as children, parents, pregnant women, persons with disabilities, and individuals aged 65 and older. However, the *Patient Protection and Affordable Care Act* gave states and territories the option of expanding their Medicaid programs by covering low-income adults not previously eligible for Medicaid coverage. As of September 2019, 36 states and the District of Columbia had opted to expand their Medicaid programs.

resulting in 56 distinct state and territory-based programs.[3] This flexibility has allowed states to fashion their programs based on their unique needs. CMS is required to oversee states' compliance with federal requirements by, among other things, reviewing and approving states' funding requests.

Under federal law, states are eligible to receive federal funds for the information systems they use to support the Medicaid programs. Medicaid and the systems supporting the program are significant—Medicaid's estimated federal outlays for fiscal year 2019 were $413.44 billion.

Medicaid Management Information Systems (MMIS) and Eligibility and Enrollment (E&E) systems are key to administering Medicaid because they maintain data on enrollees, including health care services covered, expenditures, and claims data. States can request federal funds from CMS to help pay for the development, operation, and maintenance of their MMIS and E&E system.

At your request, we examined CMS's process to review, approve, and oversee federal funding for MMIS and E&E systems, as well as CMS's and states' actions to reduce duplicative efforts and spending on the development of these systems. Our specific objectives were to determine (1) the amount of federal funds that CMS has provided to state Medicaid programs to support MMIS and E&E systems' development, operations, and maintenance; (2) the extent to which CMS reviews and approves states' funding requests for MMIS and E&E systems and oversees the use of these funds; and (3) CMS's and states' efforts to reduce potential duplication of Medicaid IT systems and the outcomes of these efforts.

To determine the federal funding that CMS has provided to state Medicaid programs to support MMIS and E&E systems, we analyzed the expenditure data for MMIS and E&E systems for fiscal years 2008 through 2018 from CMS, all 50 states, the District of Columbia, and five territories.[4] We obtained these data from the Medicaid Budget

[3]Medicaid consists of 56 distinct programs: one for each of the 50 states, the District of Columbia, and the U.S. territories of Puerto Rico, American Samoa, Guam, the Northern Mariana Islands, and the Virgin Islands.

[4]We originally selected a 10-year time frame (fiscal years 2008-2017) to provide a long-term, comprehensive view of spending. We included fiscal year 2018 once the data for that year became final. At the time of our review, complete expenditure data for fiscal year 2019 were not available.

Expenditure System.[5] We also analyzed state expenditures related to the use of contractors for the development and maintenance of these systems for fiscal years 2008 through 2018. We obtained these data from the form CMS-64, which CMS uses to reconcile the amount of federal funding that was provided to a state.

We supplemented our analysis by interviewing CMS officials who were knowledgeable about the form CMS-64 and reimbursements to states for MMIS and E&E system expenditures. We also interviewed state Medicaid program officials who were knowledgeable about the steps taken by their respective states to receive federal funds to support MMIS and E&E system implementation and operation.

To determine the extent to which CMS approved states' requests and use of federal funds for MMIS and E&E system investments, we asked CMS to provide us with a list of all the MMIS and E&E Advanced Planning Documents (APD) that states had submitted to the agency during fiscal years 2016 through 2018, along with information on the approval or denial status of each APD.[6] In response, CMS provided us with a list of 1,353 MMIS and 509 E&E APDs. We then analyzed the information to identify how many of the total APDs had been approved, denied, withdrawn, or were pending.

To determine the extent to which CMS reviewed states' requests for federal funds for MMIS and E&E system investments, we first identified a generalizable sample from all of the 1263 approved APDs for MMIS and 411 approved APDs for E&E systems for fiscal years 2016 through 2018. This resulted in our selection of 116 MMS and 83 E&E approved APDs. We then removed 52 MMIS APDs and six E&E APDs because they did not include requests for federal funds and were, therefore, outside the

[5]CMS tracks state expenditures through the automated Medicaid Budget and Expenditure System (MBES), which allows states to report budgeted and actual expenditures for Medicaid and the Children's Health Insurance Program (CHIP) electronically. The system automatically calculates the amount CMS can provide to the state to fund program operations for MMIS and E&E systems. It also stores the state's historical budget and expenditure records for data analysis purposes.

[6]See 45 C.F.R. §95.610. An APD is a recorded plan of action to request federal funding approval for an IT project supporting the Medicaid program. According to state-submitted APD documentation, states can also use an APD to, for example, request that CMS review a contract or reallocate funds from a preceding to a current fiscal year.

scope of our review. This resulted in a final generalizable sample of 62 MMIS APDs and 77 E&E APDs.[7]

For each APD included in our final sample, we obtained and reviewed the APD decision package.[8] We assessed each APD and its associated decision package against regulations and CMS guidance contained in the *Medicaid Enterprise Certification Life Cycle and Medicaid Eligibility and Enrollment Life Cycle* for, among other things, evidence of CMS's review prior to funding approval, and key required elements, where appropriate—such as alternatives analyses, feasibility studies, and cost benefit analyses.[9]

In addition, to assess the extent to which CMS oversaw the states' use of funding for MMIS and E&E systems, we identified those APDs in our final sample that included information indicating that the related system development projects completed the entire CMS life cycle process and received either certification or post-operational review.[10] We identified a total of four MMIS APDs that met these criteria. We then asked officials within CMS's Center for Medicaid and Children's Health Insurance Program Services (CMCS) to verify whether the projects related to these four APDs had completed certification. CMCS officials verified that one of the four identified projects had completed certification. Due to the low number of projects identified through this process, we requested that

[7]We generalized where appropriate, but where not appropriate due to our sample size, we did not generalize.

[8]According to the *CMS Regional Office MMIS Request Standard Operating Procedures* and the documentation that CMS provided for our review, the decision package is to consist of the state's APD submission and any additional pertinent documentation, including a request for proposals, contracts, and CMS APD review documentation, such as decision memos and financial review checklists, and additional information needed by CMS. CMS guidance for E&E funding requests includes information about what artifacts CMS is to retain, but does not use the term decision package. For consistency purposes, we refer to the artifacts CMS is to retain during the APD review and approval process for each state submitted APD as a decision package.

[9]See 45 C.F.R. §95.610 and CMS, *Medicaid Enterprise Certification Life Cycle* (Baltimore, MD: September 2007, updated August 2018) and CMS, *Medicaid Eligibility and Enrollment Life Cycle* (Baltimore, MD: August 2017, updated August 2018).

[10]CMS is responsible for oversight (onsite surveys and reviews) of state Automated Data Processing methods and practices to assure that MMIS and E&E systems are being used for purposes consistent with proper and efficient administration of the Medicaid program. See 45 C.F.R. § 95.621. According to CMS's Medicaid Enterprise Lifecycle Process for MMIS and E&E systems, CMS is to do this through a formal certification process for MMIS and a post-operational review process for E&E systems.

CMS identify three additional MMIS system development projects that had been completed and certified. We selected the one project we identified (an Alaska MMIS project) and two of the three MMIS projects that CMS provided to us (projects from Ohio and Indiana). Our selection of this purposeful non-generalizable sample of three MMIS projects was from states that were among the top, middle, and lower ranges for total Medicaid IT spending from 2008 to 2018.[11]

Further, we identified a total of 21 APDs in our sample that included information indicating that the related E&E system development projects may have received a post-operational review. To supplement our review of these APDs, we also reviewed states' survey responses related to the operational status of their E&E systems. From our review of the APDs and survey responses, we selected two E&E system projects from Ohio and New York—states that were among the top 10 states for total spending. The selection of three MMIS and two E&E systems development projects resulted in a non-probability, non-generalizable sample of state system development projects that had completed the entire CMS life cycle process and received either certification or post-operational review.

For each of the five selected projects, we obtained and reviewed key documentation used by CMS to conduct state project oversight, such as progress reports from the states' independent verification and validation contractors and system certification and post-operational review reports. We also interviewed CMS officials responsible for the review, approval, and oversight of MMIS and E&E funding requests and state Medicaid officials from California, Alaska, Georgia, Maryland, and Mississippi who are charged with implementing IT systems to support the Medicaid program.[12]

We also administered a web-based survey to all 56 states and territories (hereafter referred to as states). The survey solicited the states' views regarding CMS's process for approving the funding of Medicaid IT systems. We administered the survey from August 2018 to January 2019;

[11]We defined the spending ranges as high (states with over $1 billion in spending), mid-range (spending between $500 million to $900 million), and low range (states with spending below $500 million).

[12]California, Georgia, and Maryland were selected because we pretested a survey with Medicaid officials in those states (discussed in the next section and appendix I). Officials from Alaska and Mississippi were interviewed in order to clarify responses these states provided for the survey.

therefore, the corresponding responses reflected information and views as of that time period. We received 50 responses, for an 89 percent response rate. We assessed the complete or partial responses received from 50 states.

To determine CMS's and states' efforts to reduce potential duplication of Medicaid IT systems and the outcomes of these efforts, we reviewed relevant regulations and guidance on promoting, sharing, and reusing MMIS and E&E technologies. Specifically, we reviewed regulations related to mechanized claims processing and information retrieval systems,[13] the August 2016 *State Medicaid Director Letter Regarding Modularity*, and the April *2018 State Medicaid Letter Regarding Reuse*.[14] We also reviewed and analyzed documentation related to CMS initiatives for encouraging states to share and reuse Medicaid IT. This documentation included CMS's 2018 *Open Source Provider Screening Module* presentation conducted by CMS's Data and Systems Group and screenshots depicting the initiatives CMS had underway to encourage states to share and reuse MMIS and E&E technologies.

To obtain perspectives from the states, we included in our survey to them, questions related to their initiatives to share, leverage, and reuse MMIS and E&E systems. The questions also related to performance measures, results, and challenges associated with their initiatives, among other things. Further, we reviewed and assessed any supporting documentation provided with the survey responses.

We also held discussions with knowledgeable CMS officials in the Data Systems Group, as well as state Medicaid agency officials, to discuss efforts that CMS has underway to reduce IT duplication and promote reuse. In addition, we interviewed Medicaid officials in various states, including California, Alaska, and Mississippi, to discuss CMS's efforts underway to encourage sharing and reuse technologies. We had discussions with these specific states based on survey responses regarding their efforts and CMS efforts to implement initiatives to share

[13]42 C.F.R. § 433.112(b)(13) requires that a system must meet the condition to promote sharing, leverage, and reuse of Medicaid technologies and systems among and within states.

[14]CMS, *State Medicaid Director Letter, SMD #16-010 Regarding CMS-2392-F Mechanized Claims Processing and Information Retrieval Systems–Modularity* (Baltimore, MD: August 2016) and *State Medicaid Director Letter, SMD # 18-005 Regarding CMS-2392-F Mechanized Claims Processing and Information Retrieval Systems–Reuse* (Baltimore, MD: April 2018).

and reuse technologies. A full description of our objectives, scope, and methodology can be found in appendix I.

We conducted this performance audit from February 2018 to September 2020 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Background

Under federal law, each state is eligible to receive reimbursement through federal funds for the design, development, or installation of Medicaid claims processing and information retrieval systems, including an MMIS and E&E system. States are eligible for an enhanced federal matching rate of 90 percent for the design, development, or installation, and a 75 percent matching rate for the operation and maintenance of these systems.[15]

A state MMIS is used to store and maintain data on Medicaid enrollees, health care services covered, and expenditures. The system includes various subsystems that support Medicaid claims activities, as well as services provided through managed care. These subsystems include provider screening for enrolling and maintaining a state's network of providers for serving the Medicaid beneficiary population, claims processing for reviewing claims filed by providers before they are paid, and surveillance and utilization review for use by program integrity analysts in conducting post payment reviews of claims to detect whether payments were made improperly. The MMIS may also support encounter data processing, quality measurement, and value-based payment and data analytics.

Additionally, E&E systems are used to process and store applications from Medicaid applicants and beneficiaries to determine eligibility verification for enrollment services. States are to use the data from both MMIS and E&E systems for management and oversight of their Medicaid

[15]42 U.S.C. § 1396b(a)(3)(A)(i). Historically, the enhanced federal matching rate of 90 percent applied to MMIS systems, but not E&E systems. These rates are considered "enhanced" because they exceed the standard matching rate of 50 percent for administrative costs. See 45 C.F.R § 95.605. In 2011, CMS extended the availability of the 90 percent rate for E&E systems as well. 42 C.F.R. § 433.112(c). States are also eligible for a 75 percent matching rate for the operation and maintenance of these systems. See 42 U.S.C. § 1396b(a)(3)(B).

program operations and costs. E&E systems may also process enrollment renewals and changes in circumstances, as well as support enrollment in appropriate benefits packages. In addition, E&E systems provide user interfaces for applicants, enrollees, and caseworkers to update and access information.

Within CMS, CMCS serves as the focal point for all national program policies and operations related to Medicaid, the Children's Health Insurance Program (CHIP), and the Basic Health Program.[16] These critical health coverage programs serve millions of families, children, pregnant women, adults without children, and seniors and people living with disabilities.

CMCS's Data and Systems Group is responsible for, among other things, supporting states in the development and maintenance of MMIS and E&E systems used for Medicaid program operations. In addition, the Data and Systems Group is responsible for the review and approval of MMIS and E&E funding requests, including requests for enhanced federal funding, submitted by states through an APD.[17]

CMS Developed a Process for Reviewing and Approving States' Requests for Federal Funding

Federal regulations require that states submit an APD to CMS in order to receive the enhanced matching rate for federal funding for state Medicaid

[16]The Children's Health Insurance Program (CHIP), a joint federal-state program, was established in 1997 to initiate and expand the provision of health assistance to certain uninsured, low-income children. The program finances health care for over 9 million children whose household incomes are too high for Medicaid eligibility, but may be too low to afford private insurance. A state has three options for designing its CHIP program: (1) Medicaid expansion CHIP, where CHIP operates as an extension of the state's Medicaid program; (2) separate CHIP, where CHIP operates separately from its Medicaid program; or (3) combination CHIP, in which a state operates both. The Basic Health Program was established by Section 1331 of the *Affordable Care Act.* It provides states the option to establish health benefits to cover programs for low-income residents who would otherwise be eligible to purchase coverage through the Health Insurance Marketplace, and provides coverage and continuity of care for people whose income fluctuates above and below Medicaid and CHIP levels.

[17]See 45 C.F.R. §95.610. An APD is a recorded plan of action to request federal funding approval for an IT project supporting the Medicaid program. According to state-submitted APD documentation, states can also use an APD to, for example, request that CMS review a contract or reallocate funds from a preceding to a current fiscal year.

IT projects.[18] An APD is a written plan of action for the activities in which states are requesting funding.[19] States may submit multiple APDs at various life cycle phases for a Medicaid IT system project.

CMS is required to review the APDs to ensure that technical and operational criteria have been met before a state is approved for funding. In addition, states must submit a specific type of APD related to the type of funding they are requesting. Table 1 identifies the various types of APDs that can be submitted and their purpose for submission.

Table 1: Types of Advance Planning Documents (APD) and Purpose for Submission by States to CMS

Type of APD	Purpose for submission
Planning	For system project planning activities
Implementation	For activities related to the design, development, testing, and implementation phases of the project
Operational	Submitted annually to report the project's operational status after the system development activities have been completed
Annual update	To report a project's status
As-needed update	Submitted to request continued project funding for significant changes

Source: GAO analysis of agency data. I GAO-20-179

Prior to a regional reorganization in February 2019, CMS had two different processes for reviewing and approving MMIS and E&E APDs.[20] At that time, 10 CMS regional offices served as the initial points of contact for their assigned states on Medicaid MMIS program issues.[21] For MMIS, a state would submit a completed APD to the appropriate CMS regional office for review and approval. The regional office analyst would provide the approval (or denial) recommendation to the CMCS central office,

[18]Federal regulations also require states to submit an APD to CMS in order to receive the enhanced matching rate for federal approval for state Medicaid IT projects.

[19]As previously discussed, according to state-submitted APD documentation, states can use an APD to, for example, request that CMS review a contract or reallocate funds from a preceding to a current fiscal year.

[20]With the reorganization of the regional office structure, CMS has consolidated the review and approval processes of MMIS and E&E APDs.

[21]Prior to February 2019, the 10 CMS regional offices were Boston, New York, Philadelphia, Atlanta, Chicago, Dallas, Kansas City, Denver, San Francisco, and Seattle.

which would then return a final approval decision to the regional office authorizing (or denying) the release of federal funds to the state. The regional office would subsequently notify the state of the decision and the amount of approved federal funds, if applicable.

For an E&E funding request, a state would submit its completed APD to CMCS headquarters for review and approval. CMCS would then notify the state of the decision and the amount of approved federal funds, if applicable.

The February 2019 regional reorganization changed the way states are to interact with CMS to request federal funding for their Medicaid IT projects. For example, as part of the reorganization, CMS created a Medicaid Enterprise Systems State Officer Model within the Data and Systems Group. According to this model, CMS appointed an officer to serve as a point of contact for each state for MMIS and E&E projects, among other things. The officer is responsible for reviewing a state's APD, providing a recommendation to approve or deny funding, and then monitoring funding and performance of the state's approved project and outcomes.

By reorganizing the structure of CMCS, state officials wishing to receive federal funds for MMIS and E&E projects now primarily interact with one person for funding approval, instead of multiple people and organizations. According to CMCS officials, the reorganization was an effort to create an integrated team to more effectively maximize resources while improving customer service to the states and stakeholders. According to Data and Systems Group officials, the goal of the integration was to increase consistency of policy implementation and accountability within CMS.

CMS Encouraged States to Share, Leverage, and Reuse Medicaid IT

In 2016, CMS identified 10 common areas of functionality for MMIS system modules (rational, discrete subsets of system functionality), including fee-for-service claims, care management, third party liability, and provider management that can be used and shared by states when developing their MMIS. In addition to the common functions, states can also customize their MMIS based on the needs of the state's individual Medicaid IT program. In August 2016, CMS issued guidance which encouraged states to develop modular Medicaid IT systems that are interoperable with other parts of the Medicaid enterprise and meet all other standards and conditions for Medicaid IT, including complying with

technical requirements established by CMS.[22] In addition, federal regulations required that conditions for approval of the APD be met, including the state's efforts to share, leverage, and reuse Medicaid technologies across states.[23] To assist states with implementing the regulation, the August 2016 guidance required states to implement system modules and make them available for sharing and reuse by other states.[24]

In April 2018, CMS issued additional guidance that promoted the reuse of technologies, stating that reuse can be accomplished through sharing an entire system of business services, a stand-alone system module, or subcomponents of a system, such as IT code.[25] In addition, according to the guidance, states can achieve reuse through adapting existing capabilities within the state, those in use by another state, or those available from the vendor community. The guidance states that, over the long run, reuse is expected to lower implementation and operational costs compared to states deciding to replicate functionality that may be already available.

CMS Provided about $34 Billion Dollars over 11 Years to States to Develop, Operate, and Maintain Medicaid IT Systems

During the 11 years from fiscal year 2008 through fiscal year 2018, states spent a total of $44.1 billion on the design, development, installation, operations, and maintenance of MMIS and E&E systems used to support their Medicaid programs. CMS reimbursed the states $34.3 billion of that amount, and states were responsible for funding the remaining $9.8 billion that was not reimbursed by CMS. Table 2 depicts the amounts that federal and state governments spent for MMIS and E&E systems during fiscal years 2008 through 2018.

[22]A module is a packaged, functional business process or set of processes implemented through software, data, and interoperable interfaces that are enabled through design principles in which functions of a complex system are partitioned into discrete, scalable, reusable components.

[23]42 C.F.R. §§ 433.112. According to CMCS officials, there may be instances where sharing, leveraging, and reusing Medicaid technologies is not applicable due to a state's unique project.

[24]CMS, *State Medicaid Director, SMD #16-010 Regarding CMS-2392-F Mechanized Claims Processing and Information Retrieval Systems–Modularity* (Baltimore, MD: August 2016).

[25]CMS, *State Medicaid Director, SMD #18-005 Regarding CMS-2392-F Mechanized Claims Processing and Information Retrieval Systems–Reuse* (Baltimore, MD: April 2018).

Table 2: Money Spent by States and Reimbursed by CMS for Fiscal Years 2008–2018 for Medicaid Management Information System (MMIS) and Eligibility and Enrollment (E&E) System Design, Development, and Installation (DDI) and Operations and Maintenance (O&M)

Dollars in billions

System	CMS	State	Total
MMIS DDI[a]	$7.87	$2.50	**$10.37**
MMIS O&M	$16.62	$5.67	**$22.29**
MMIS total	**$24.49**	**$8.17**	**$32.66**
E&E DDI	$7.46	$0.89	**$8.35**
E&E O&M	$2.34	$0.77	**$3.11**
E&E total	**$9.80**	**$1.66**	**$11.46**
Total	**$34.29**	**$9.83**	**$44.12**

Source: GAO analysis of CMS data. I GAO-20-179

[a]MMIS DDI includes costs that are characterized as "mechanized systems costs," which include the total amount of expenditures directly attributable to the design, development, installation, improvement, or operation of a mechanized claims processing and information retrieval system.

From fiscal year 2008 through fiscal year 2018, the annual amount that CMS reimbursed to states for MMIS and E&E systems increased by approximately 185 percent—from $1.66 billion in 2008 to $4.74 billion in 2018. PPACA required the establishment of a coordinated eligibility and enrollment process for Medicaid, CHIP, and the health insurance exchanges. In 2011, in implementing this requirement, CMS expanded the availability of an enhanced matching rate of 90 percent for states' expenditures related to the design, development, and installation of Medicaid E&E systems that were acquired from April 19, 2011 through December 31, 2015.[26] The PPACA requirement and expansion of the enhanced matching rate for E&E systems contributed to the increases in CMS spending from 2011 through 2015. This is because, prior to 2011, states were eligible to receive a 50 percent match for E&E systems, rather than the 90 percent enhanced matching rate. Further, in December 2015, federal regulations were modified to permanently include E&E systems as eligible to receive the increased funding.[27]

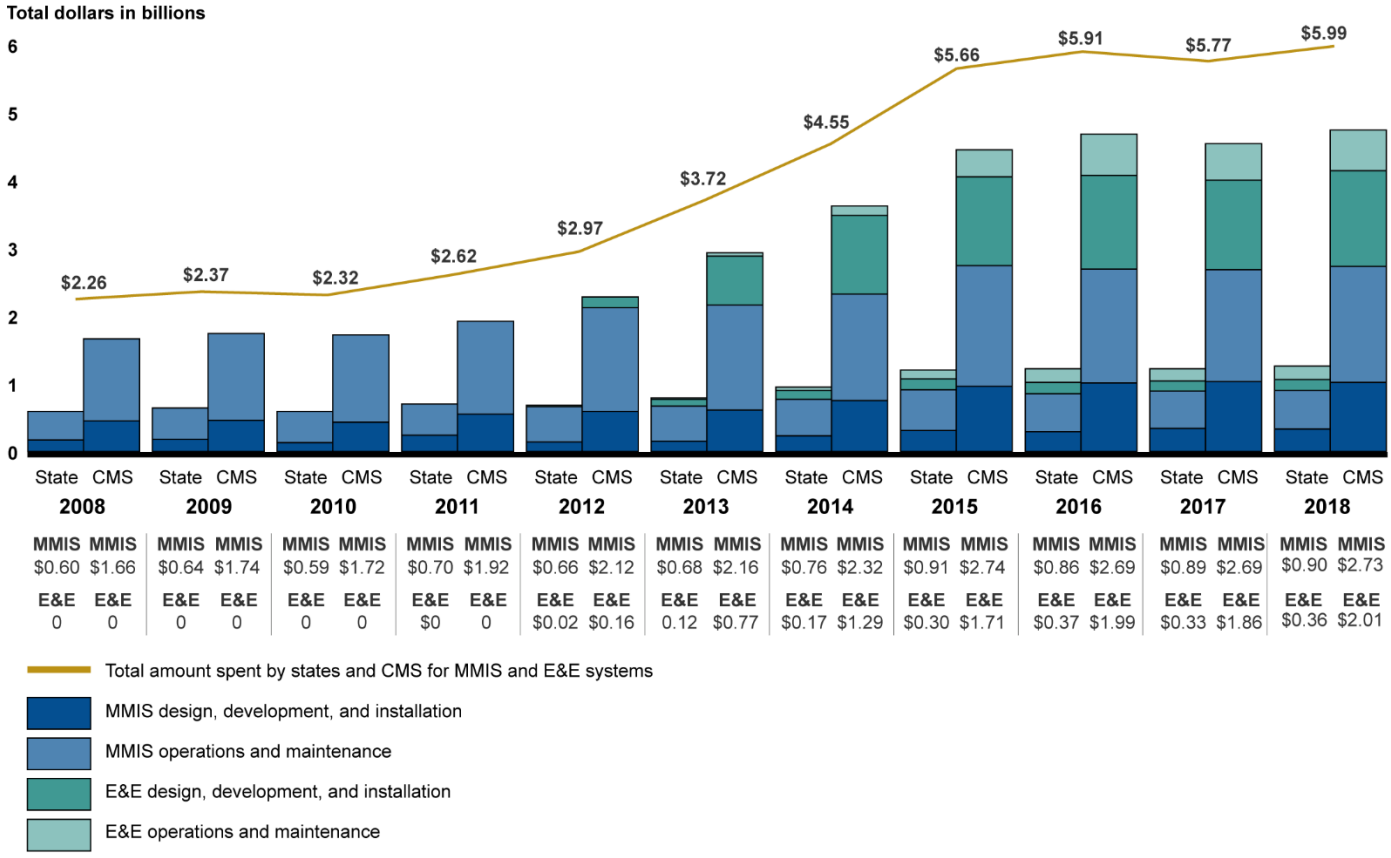
Figure 1 depicts the total amount spent by states and reimbursed through CMS for MMIS and E&E systems from fiscal years 2008 through 2018.

[26]42 C.F.R. § 433.112(c).

[27]80 Fed. Reg. 75817 (Dec. 4, 2015); 42 CFR § 433.111(b).

Further, appendix II provides information on the total amount spent for MMIS and E&E systems by state during these years.

Figure 1: Total Amount Spent by States and Reimbursed through CMS for Medicaid Management Information Systems (MMIS) and Eligibility and Enrollment (E&E) Systems from Fiscal Years 2008 through 2018



Source: GAO analysis of agency data. | GAO-20-179

Note: States were eligible to receive a 50 percent match for E&E systems prior to 2008 through 2011. From 2008 to 2011, CMS reimbursed a nominal amount to the states on the design, development, and installation of their E&E systems. Because we rounded to the nearest billion, the amount for design, development, and installation for these years appears to be “0.” CMS did not reimburse states for the operations and maintenance of these systems prior to 2012.

CMS Approved Most States' Funding Requests, but Required Reviews Had Shortcomings and the Process for Conducting Oversight Was Not Comprehensive

CMS approved most states' requests for federal funding to support their MMIS and E&E systems; however, the agency's process for reviewing the requests had shortcomings. Specifically, CMS did not consistently document its reviews or ensure that required analyses were performed. In addition, the agency did not appropriately manage all of the APD-related documentation that CMS uses to support its review of the funding requests. Further, CMS did not have a comprehensive process for overseeing states' use of the approved funds for MMIS and E&E IT projects. State chief information officers (CIO) also were often not included in the oversight process. In October 2019, the agency began the process of implementing an outcome-based certification process, but the initiative did not yet include MMIS and E&E systems.

CMS Approved Most Funding Requests for MMIS and E&E Systems

As mentioned previously, federal regulations require that states submit an APD to CMS in order to receive the enhanced matching rate for federal funding for state Medicaid IT projects.[28] CMS is required to review the APDs to ensure that technical and operational criteria are met before a state is approved for funding. Among the APDs that states submitted to CMS during fiscal years 2016 through 2018, CMS had

- approved 93 percent of the MMIS APDs and 81 percent of the E&E APDs[29] and
- disapproved about 0.4 percent of the MMIS APDs and approximately 1 percent of the E&E APDs.[30]

In addition, states withdrew about 3 percent of the MMIS APDs and 9 percent of the E&E APDs,[31] while 4 percent of the MMIS APDs and 9 percent of the E&E APDs were pending.[32] CMCS officials attributed the high percentage of funding requests approved to the technical assistance

[28]Federal regulations also require states to submit an APD to CMS in order to receive the enhanced matching rate for federal approval for state Medicaid IT projects.

[29]In fiscal years 2016 through 2018, CMS approved 1264 of 1,353 MMIS APDs, and 411 of 509 E&E APDs.

[30]In fiscal years 2016 through 2018, of the total MMIS APDs submitted, 6 of 1,353 were denied and, of the total E&E APDs submitted, 7 of 509 were denied.

[31]In fiscal years 2016 through 2018, of the total MMIS APDs submitted, 34 of 1,353 were withdrawn and, of the total E&E APDs submitted, 46 of 509 were withdrawn.

[32]In fiscal years 2016 through 2018, of the total MMIS APDs submitted, 49 of 1,353 were pending and, of the total E&E APDs submitted, 45 of 509 were pending.

provided to states prior to their submission of funding requests. This assistance, according to CMCS, helped to ensure that what was ultimately submitted included only items that would be considered approvable by CMS.

APD Reviews were Not Documented or Comprehensive and Supporting Artifacts Were Not Maintained Due to Lack of Procedures and Decision-Making Criteria

CMS did not consistently document its reviews of APDs

According to the *Medicaid Enterprise Certification Life Cycle and Medicaid Eligibility and Enrollment Life Cycle,* in order for states to receive federal funding for MMIS and E&E systems, they are required to submit to CMS documentation, such as APD requests, as well as requests for proposals and contracts, as appropriate. The CMCS *Regional Office MMIS Request Standard Operating Procedures* require this documentation, along with CMS APD review documentation, such as decision memos and financial review checklists and any other additional information needed by CMS to be included in a decision package for each APD.[33] According to CMCS officials and CMS guidance, analysts are to use financial review checklists or decision memos to document the review and approval recommendations for state funding requests. The checklist, used by CMS for E&E APDs, in large part, specifies that the analyst verify financial details for specific funding requests. The decision memo, used by CMS for MMIS APDs, is to include APD review information, such as CMS's recommendation for APD approval, name of the reviewer, and the date of the review. CMS guidance also requires analysts to assign tracking numbers to each APD submitted by states and include these numbers on the corresponding review documentation.

While CMS almost always had some evidence of review for E&E APDs, they often did not have such evidence for MMIS. Specifically, based on the results of our review of the generalizable sample, we estimate that, in fiscal years 2016, 2017, and 2018, about 99 percent of approved E&E decision packages had some evidence that a review had been

[33]At the time of our review, CMS did not have standard operating procedures for the E&E APD process. However, according to CMS officials, this documentation was also to be retained for E&E system funding requests. To be consistent, we use the term decision package in referring to the artifacts to be retained for both MMIS and E&E funding requests.

performed.[34] In contrast, approximately 26 percent of the approved MMIS decision packages did not have any evidence of review.[35]

In addition, decision packages lacked pertinent information that would be essential for indicating that a complete review had been performed, as in the following examples.

- Based on our sample, we estimate that about 100 percent of the financial review checklists for E&E decision packages lacked evidence that all of the required steps of the review had been performed by CMS analysts.[36]
- We estimate that about 99 percent of E&E decision packages lacked the name of the CMS reviewer or the date of the review.[37]
- We estimate that about 68 percent of MMIS APD decision packages lacked the name of the CMS reviewer and 35 percent lacked the date of the review.[38]
- We estimate that, among APDs that included a financial review checklist, about 25 percent of the checklists for the E&E decision packages did not identify the APD tracking number or identified the incorrect APD tracking number.[39]
- We estimate that about 30 percent of the MMIS decision packages had review documentation, such as decision memos, that did not identify any associated tracking number for the APD being reviewed.[40]

As a result, CMS may not be able to verify whether analysts performed a thorough review of APDs in a timely manner. According to CMCS officials, the letter provided to the state indicating that funding has been approved by CMS is the evidence that there was a review of the APD and includes the analyst's name who conducted the review and a date.

[34]The confidence interval for this estimation is 0 to 7%.

[35]The 95 percent margin of error for this estimate is 12.5%.

[36]The 95 percent confidence interval for this estimate is 96.2% to 100%.

[37]The 95 percent confidence interval for this estimate is 93% to 100%.

[38]The 95 percent margin of error for this estimate is 12.8% for no name of reviewer and 12.9% with no date of review.

[39]The 95 percent margin of error for this estimate is 11.1%.

[40]The 95 percent margin of error for this estimate is 12.8%.

However, this letter does not specify what documentation was reviewed. Rather, the letter simply states that documentation was reviewed and that CMS approved the funding that the state requested.

Implementation APDs frequently did not include required analyses

CMS requires states to submit information, including an alternatives analysis, a feasibility study, and a cost benefit analysis when submitting an implementation APD funding request—key information for ensuring that the state selected the most cost effective and comprehensive solution.[41] Specifically, the alternatives analysis considers available alternatives for a state's design, a feasibility study provides information to help determine if the proposed system development solution is reasonable, and the cost benefit analysis is used to identify the costs and benefits of each feasible alternative identified.

However, CMS analysts did not ensure that this required information was included in the APDs when they conducted their reviews. Instead, CMS analysts approved implementation APDs even when they did not include an alternatives analysis, a feasibility study, and/or a cost benefit analysis.

For the approved implementation APDs we reviewed, we observed that

- 13 of 16 MMIS APDs and one of six E&E APDs did not include an alternatives analysis;
- all 16 MMIS APDs and three of six E&E APDs did not include a feasibility study;
- 10 of 16 MMIS APDs and two of six E&E APDs did not include a cost benefit analysis; and
- nine of 16 MMIS APDs and one of the six E&E APDs did not include any of the three required documents.[42]

As a result, CMS approved funding requests based on vastly different levels of detail in the supporting feasibility study and cost-benefit analysis.

[41]45 C.F.R. § 95.610.

[42]These nine MMIS APDs and the one E&E APD are also included in the previous counts.

CMS did not appropriately manage APD-related documentation, including artifacts supporting its review of APDs

The *CMCS Regional Office MMIS Request Standard Operating Procedures* specify that the agency will maintain state-submitted documentation, including APD requests and other supporting artifacts, in the CMS document management system. Specifically, as previously stated, these procedures also require that these artifacts, as well as artifacts developed as a result of CMS's review of APDs, be stored as a decision package for each APD. Examples of such artifacts are the MITA self-assessment (a business case that states are required to provide for funding approval), state-submitted contracts, CMS review checklists and decision memos, and other pertinent documentation.

However, CMS did not retain all of the supporting artifacts that should have been included in APD decision packages. For example, according to CMCS officials, analysts rely heavily on regular discussions via phone or email with states during an APD review to solve any issues that may have come up during the APD review process or when states are drafting the APD to CMS. However, CMS did not provide evidence that it retained the written summaries of key decisions made during conversations or emails to the states in any of the 141 APD decision packages we evaluated. In addition, none of the APD decision packages we reviewed included a MITA self-assessment. By not retaining evidence of written summaries of decisions during conversations and the MITA self-assessment, CMS may not have the pertinent information required to make adequate funding decisions.

In addition, CMS did not maintain the relevant MMIS and E&E APD documentation based on the entire life cycle of a project (which likely includes numerous APDs). Instead, it tracked and saved APDs and the related documentation separately by assigning a different APD tracking number to each. To illustrate, several of the APDs we sampled referenced another related APD, but the decision package that was provided by CMS did not include the related APD. By tracking APDs individually and not as part of an entire project, CMS analysts may not have visibility into prior decisions and changes in a state system's Medicaid IT project.

CMS also did not retain telephone conversation summaries and emails because, according to Data and Systems Group officials, only formal decisions, such as letters to states indicating funding approval, requests for additional information, and the project partnership of understanding,

were required to be saved with the original decision package for each project.[43]

Further, CMCS officials stated that other key documentation, such as MITA self-assessments, may not have been retained consistently because temporary access to states' document management systems was often granted to CMS analysts until the APD review was complete. Once complete, the access was removed by the state—eliminating CMS's access to key documentation provided by the state.

In addition, CMCS officials agreed that APDs are not tracked by the life cycle of a project; instead, they are tracked individually as states submit them and each submission receives an individual identification number that is used to track the request. Further, according to the officials, if a state's project included 10 different APDs, CMS would track each of them as a separate submission that is not linked by a "parent" APD number. However, the officials added that they are considering various tools that would allow them to store and track the APDs using one central number to ensure a longitudinal view across IT projects regardless of the investment. CMCS officials did not provide us with a time frame for when they intended to have a tool in place to track the entire life cycle of an MMIS and E&E project.

Review deficiencies resulted from a lack of formal, documented procedures and decision-making criteria

The deficiencies identified in the CMS APD review process were due, in part, to the absence of formal, documented procedures and decision-making criteria for reviewing and approving APDs. While CMCS had developed workflows related to its review and approval process, the workflows did not include specific procedures for how the funding requests were to be reviewed, how the review should be documented, what documentation should be retained after the review, nor the criteria to be used for making approval decisions. In addition, although CMS had financial checklists to assist in the review, the checklists did not include specific procedures for what the analyst was to review and against what criteria.

According to CMCS officials, analysts are to use their professional judgment and knowledge received from training when making funding

[43]The Project Partnership Understanding document captures decisions agreed on by the state and CMS. Any conflicts must be resolved before the document is finalized.

decisions. However, the professional judgment of each analyst could vary greatly. To illustrate, Medicaid officials from 12 of 50 states (24 percent) responding to our survey indicated a lack of consistency in CMS reviews of their funding requests. For example, Medicaid officials in one state reported that requirements for funding approval depended on which CMS analyst reviewed a request. The officials explained that, for similar types of APDs, one CMS analyst may require a state to include additional information that another analyst may not have previously required. In addition, Medicaid officials in another state reported that information required for inclusion in budget forms for APDs varied depending on which analyst reviewed the APD. As a result, the state Medicaid officials reported to us that they were unclear what specific information was required for requesting federal funds for their Medicaid IT systems.

Until CMS develops documented procedures and decision-making criteria for the review and approval of the billions of dollars in federal funds requested by states each year for Medicaid IT systems, the agency will be at risk of approving these funds without a comprehensive and consistent review and without complete information on which to base its approval decision. In addition, decisions could be made to approve funding without an adequate business case.

CMS Lacked a Comprehensive and Risk-based Process for Conducting Oversight of State MMIS and E&E Programs and Did Not Include CIOs; New Initiative Focuses on Outcomes

CMS lacked a comprehensive and risk-based oversight process for the MMIS and E&E Systems

CMS is to determine the adequacy of state systems, including ensuring that the system's equipment and services are being used for purposes consistent with proper and efficient administration of the Medicaid program.[44] CMS is to do this through a formal certification process for MMIS and a post-operational review process for E&E systems. Further, CMS's *Medicaid Enterprise Certification Life Cycle and Medicaid Eligibility and Enrollment Life Cycle* require CMS to conduct oversight activities at

[44]45 C.F.R. § 95.621; 75 Fed Reg. 66319 (Oct. 28, 2010).

key milestones throughout the project's life cycle.[45] These activities include reviewing documentation submitted by states and providing recommendations to states for corrective actions, as necessary.[46] This documentation is to include the MITA self-assessments, system test results, independent verification and validation reports (as necessary), and periodic progress reports at the appropriate milestones.[47] According to CMCS officials, CMS can also provide states with technical assistance, upon request. Technical assistance can range from guidance to providing technical information security assistance through a contractor.

CMS varied in its efforts to provide oversight for the five selected projects (three MMIS and two E&E) that had either received certification (MMIS) or post-operational review (E&E). For these projects, CMS provided oversight through comments and recommendations to some states, but not others.

- For the first and second projects (MMIS) we assessed, the states were seeking certification for their relevant MMIS modules, and CMS conducted onsite reviews of the modules and relevant documentation. The agency also developed a comprehensive summary of its review in both cases, including comments and recommendations to the states.
- For the third (MMIS) and fourth (E&E) projects, CMS could not provide documentation that demonstrated its review, such as the results of their

[45]According to CMS life cycle documentation for MMIS and E&E, system projects are subject to project initiation and operational milestone reviews. The project initiation milestone review is to be held within 30 days of implementation APD submission. This review provides a forum for the state and CMS to discuss the state's plans. For the operational milestone review, the CMS regional office is to review the progress report and the state's independent verification and validation report and any other pertinent documentation supplied by the states. CMS is to comment on this documentation and make recommendations, as needed. A state may also seek a MMIS certification final review or an E&E post-operational review after the system has been in operation for at least six months. Each review consists, in part, of CMS staff verifying and documenting that federal and state requirements are satisfied by reviewing the functionality of the system in a production environment.

[46]CMS, *Medicaid Enterprise Certification Life Cycle* (Baltimore, MD: September 2007, updated August 2018) and CMS, *Medicaid Eligibility and Enrollment Life Cycle* (Baltimore, MD: August 2017, updated August 2018).

[47]Under federal regulation 45 CFR 95.626(a)(b), the independent verification and validation contractor provides an independent analysis of a system's development project that meets certain conditions, such as a project that is at risk of failing to meet a critical milestone; a project that is at risk of failure, major delay, or cost overrun in its system development efforts, among other things. This entity must be independent of the state Medicaid agency and CMS, its umbrella agency, unless the state receives an exception.

review or comments and recommendations to the states. Although the E&E project was operational prior to the implementation of CMS' life cycle process, the agency could not provide any evidence of prior actions it had taken to oversee the project.

- For the fifth project (E&E), CMS indicated that numerous key action items were outstanding and in the process of being completed. The agency indicated that these items would need to be completed before the project would be ready for operation. However, CMS did not provide evidence that the state subsequently took action on these items or that it conducted any further review of the system.

According to Data and Systems Group officials, CMS relied largely on the states to monitor and oversee the progress of their own IT systems projects and to determine how the states should perform these tasks. The officials added that they have provided technical assistance to states on occasion, but that the states would have to request such assistance and be willing to accept the technical assistance provided by CMS.

CMS did not always provide oversight comments and recommendations to states, follow up on comments and recommendations it made, or target the projects that were most at risk for additional assistance. CMS's lack of comprehensive oversight resulted in states not having the guidance that could have been useful when managing system projects that were at risk of failure. For example, Medicaid program officials in two states reported that, when they identified that the states' contractors were underperforming and not meeting cost, schedule, and performance thresholds regarding the development of their MMIS, the states periodically briefed CMS and received generalized feedback from the agency. However, neither state indicated that CMS provided actionable recommendations or technical assistance, which, according to one state would have been helpful.

In these two cases, the states terminated the projects after paying contractors a combined $38.5 million in federal money. Without guidance, recommendations, and technical assistance to states based on risk, CMS may provide states with millions of dollars in federal funds for projects that are not performing well, which, in at least two states, resulted in projects that were terminated without completing the work.

Federal and State CIOs did not provide oversight for MMIS and E&E systems

As part of its efforts to reform the government-wide management of IT, in December 2014, Congress enacted the *Federal Information Technology Acquisition Reform* provisions (commonly referred to as FITARA) of the *Carl Levin and Howard P. 'Buck' McKeon National Defense Authorization Act for Fiscal Year 2015*.[48] FITARA requires covered executive branch agencies to ensure that CIOs have a significant role in the decision-making process for IT budgeting, as well as the management, governance, and oversight processes related to IT. FITARA required OMB and agencies to make publicly available detailed information on federal IT investments. To address this requirement, OMB used its existing IT Dashboard, a public website with information on the performance of major federal investments, to further improve the transparency into and oversight of federal agencies' IT investments. In addition, the Office of Management and Budget (OMB) required agencies to define IT policies and processes that ensure that the CIO certifies that IT resources are adequately implementing incremental development.[49] In its guidance, OMB defined adequate incremental development as the planned and actual delivery of new or modified technical functionality to users that occurs at least every six months for development of software or services.

The HHS and CMS CIOs were not involved in the review or oversight process for MMIS and E&E systems. According to Data and Systems Group officials, HHS and CMS CIO involvement is not necessary as the oversight role is already being performed by CMCS. However, as previously noted, CMCS provided minimal oversight for critical, multi-million dollar state IT system projects, at least two of which failed.

In addition to the lack of federal agency CIO oversight, 21 out of 47 states (45 percent) responding to our survey reported that their state CIO had either little or no involvement in overseeing their MMIS. Further, 16 of 43 states (37 percent) responding to our survey reported that their state CIO

[48]Pub. L. No. 113-291, § 831, 128 Stat. 3292, 3438 (Dec. 19, 2014).

[49]OMB, Memorandum M-15-14, *FY 2017 IT Budget-Capital Planning Guidance* (Washington, D.C.: June 30, 2015).

had either little or no involvement in overseeing E&E systems.[50] Our prior reports have highlighted the importance of federal agency CIO involvement in IT projects.[51] We have noted that, to be successful, federal agency CIOs need proper authority and oversight of the agency's IT portfolio. Such non-involvement of state officials with duties that should be heavily focused on successful acquisition and operation of IT projects could be hindering states' ability to effectively implement systems.

Prior to fiscal year 2018, HHS included MMIS and E&E systems on the federal IT Dashboard. Therefore, these investments should have been subject to review and oversight by the HHS and CMS CIOs.

However, in 2018, OMB revised its guidance and stated that IT-related grants made to state and local governments should no longer be included in the dashboard. Accordingly, information on the annual investment of billions of dollars in federal funding provided to states for MMIS and E&E systems is no longer publicly available via the dashboard. In its guidance announcing this change, OMB noted that IT-related grants totaled $9 billion, or about 10 percent of the IT budget it compiles.

CMS began a new initiative focusing oversight activities and system certification on outcomes

In an effort to improve oversight, in November 2018, CMCS began a new outcome-based certification initiative that aims to, among other things, focus CMS's review of state funding requests on the successful and ongoing achievement of business outcomes, as shown through testing, reporting, and operational data. CMS expects outcomes to include both system testing outcomes and ongoing monitoring of system effectiveness through metrics and reporting.

Through this new initiative, CMS also plans to reduce the scope and dollar value of projects that the agency will approve—requiring states to

[50]Of the 50 states that responded to our survey, three did not respond to the question regarding CIO involvement with overseeing MMIS and seven did not respond to the question regarding CIO involvement with overseeing E&E systems.

[51]For example, see GAO, *Information Technology: Agencies Need to Involve Chief Information Officers in Reviewing Billions of Dollars in Acquisitions*, GAO-18-42 (Washington, D.C.: Jan. 10 2018); and *Information Technology: Further Implementation of FITARA Related Recommendations Is Needed to Better Manage Acquisitions and Operations*, GAO-18-234T (Washington, D.C.: Nov. 15, 2017).

deliver business value within 12 to 24 months. By contrast, as previously noted, OMB's guidance requires federal agencies to deliver functionality, or business value, every six months.

In November 2018, CMS began a pilot of the outcome-based certification process for Ohio's Electronic Visit Verification system.[52] The pilot was CMS' first use of the outcome-based process to certify Ohio's Electronic Visit Verification system. However, as of February 2020, CMS had not yet established a timeline for including other systems in the new outcome-based process, including MMIS and E&E. In addition, CMS had not documented procedures for how they would use the results of the new process to improve oversight and make funding decisions.

CMS Halted Many of Its Initiatives to Reduce Duplication; States Have Identified Cost-Saving Opportunities

As previously discussed, systems supporting Medicaid IT, such as MMIS, often have core functionality that is common across systems. CMS has recognized the importance of reducing potential duplicative development efforts among these systems and has promoted sharing, leveraging, and reusing these systems and technologies. In 2015, CMS issued a regulation to states that specified conditions for Medicaid system funding approval. One condition that a state system must meet is to promote the sharing, leveraging, and reuse of Medicaid technologies.[53] In addition, in August 2016, CMS issued guidance to states on developing Medicaid IT systems in a modular fashion.[54] According to the guidance, Medicaid IT systems should be designed in modules that can be shared and reused, and that are interoperable with other states' MMISs. The guidance further stated that MMIS system modules, such as fee-for-service claims, care management, third party liability, and provider management, can be used and shared by states when developing their MMISs. According to CMS guidance, over the long run, reuse is expected to reduce duplication and lower implementation and operational costs compared to custom solutions.

[52]The Electronic Visit Verification system is used by states for Medicaid personal care services and home health services that require an in-home visit by a provider.

[53]42 C.F.R. § 433.112; Medicaid Program; Mechanized Claims Processing and Information Retrieval Systems (90/10) Final Rule, 80 Fed. Reg. 75817 (Dec. 4, 2015).

[54]CMS, *State Medicaid Director Letter, SMD #16-010 Regarding CMS-2392-F Mechanized Claims Processing and Information Retrieval Systems–Modularity* (Baltimore, MD: August 2016)

To assist states with their efforts to promote sharing, leveraging, and reusing Medicaid technologies, CMS issued additional guidance in April 2018 that encouraged the reuse of technologies. The guidance stated that reuse can be accomplished through sharing an entire system of business services, a stand-alone system module, or subcomponents of a system, such as IT code.[55] In addition, according to the guidance, states can achieve a level of reuse through adapting existing capabilities within the state, those in use by another state, or those available from the vendor community. Lastly, the CMS funding requirements for Medicaid IT require states to identify any components and solutions that have high applicability for reuse by other states.

CMS had four initiatives underway to assist states with sharing, leveraging, and reusing Medicaid technologies. These initiatives were made up of various projects and tools and had varying levels of success in implementation. Two of the four initiatives were being used by the majority of the 50 states that responded to our survey; one of the initiatives was never fully implemented; and one, although available for use, was largely not implemented by the responding states. These initiatives are described in table 3.

Table 3: Description and Status of Centers for Medicare and Medicaid Services Initiatives Aimed at Reducing Duplication by Sharing, Leveraging, and Reusing Medicaid Information Technology

Initiative	Description	Implementation status	Number of surveyed states reporting use of the initiative[a]
Reuse Repository	The Medicaid Enterprise Systems Reuse Repository was to be used by states to collect, store, and share reusable artifacts, including requests for proposals, advance planning documents, and system or module code.	Made available in August 2017. As of January 2020, CMS was no longer supporting this initiative.	25 of the 50 states (50 percent) reported using the repository.
Poplin Project	The Poplin Project was to provide free, open-source application program interfaces (API) for states to use in developing their modular Medicaid IT systems.[b] According to CMS Center for Medicaid and Children's Health Insurance Program Services (CMCS) officials, CMS developed the API specifications, but did not receive support from the contractor community necessary for developing the standards for using the APIs.	Initiative never fully implemented. As of January 2020, CMS was no longer supporting this initiative.	Three of the 50 states (6 percent) reported participating in the early stages of the project.

[55]CMS, *State Medicaid Director, SMD #18-005 Regarding CMS-2392-F Mechanized Claims Processing and Information Retrieval Systems–Reuse* (Baltimore, MD: April 2018).

Open Source Provider Screening Module	In August 2018, the Centers for Medicare and Medicaid Services (CMS) initiated a federal and state partnership project to develop the open-source provider enrollment and screening module for states to use. The module was intended to produce fully functional MMIS provider enrollment and screening capabilities that vendors and states can incorporate at no charge.	Made available in August 2018. As of January 2020, CMS was no longer supporting this initiative.	One of the 50 states (2 percent), Minnesota, reported attempting to use the module. However, the CMS module did not fulfill the state's requirements, and state officials noted that they would be building their own solution.
Medicaid Enterprise Cohort Meetings	The Medicaid Enterprise Cohort is a forum where CMS encourages states to share information, best practices, and lessons learned, and provide opportunities to share systems. CMS also uses the meetings to gather feedback from states on current or future business processes.	Made available in 2015. As of January 2020, Cohort meetings were still being held on a monthly basis.	47 of the 50 states (94 percent) reported participating in the Medicaid Enterprise Cohort meetings.

Source: GAO analysis of agency data. | GAO-20-179

[a]The states reported this information and we did not verify it.

[b]An API is a set of protocols and tools for building software applications.

In January 2020, CMCS officials informed us that the agency was no longer supporting most of the initiatives they had underway—the Reuse Repository, the Poplin Project, and the Open Source Provider Screening Module—to assist states with sharing, leveraging, and reusing Medicaid technologies. According to the officials, the agency no longer supported most of these initiatives because they failed to produce the desired results. The officials added that they saw more value in focusing their efforts on positive investment outcomes through the outcome-based certification process and not on trying to reduce duplication in Medicaid IT.

Although we agree that an increased focus on investment outcomes is a positive step, CMS regulations and guidance and our prior work have highlighted the importance of reducing duplication by sharing and reusing Medicaid IT. In addition, many states have identified and taken action on reducing duplication to achieve potential cost savings, as the following examples illustrate.

- State Medicaid officials in Arizona reported that they have shared the state's MMIS with Hawaii for almost 20 years and, as a result, estimate that they have saved approximately $107.8 million over the course of the partnership.
- Medicaid officials in West Virginia noted that the state partnered with the U.S. Virgin Islands to share its MMIS, but officials did not have an estimate on any cost savings.

- State Medicaid officials in Delaware reported that the state uses a shared application that manages Medicaid electronic health record incentive payments.[56] The Delaware officials stated that their total cost for the design, development, and implementation for the application for the period from October 2018 to September 2020 was approximately $460,000 versus the approximately $600,000 to $800,000 they would have spent to develop their own state solution.
- According to Medicaid officials in Michigan, the state has moved its MMIS to a cloud-based technology and partnered with Illinois to share its MMIS.[57]
- Medicaid officials in Montana noted that the state led a multi-state procurement for a module that provides Medicaid provider enrollment services.[58]

To illustrate the potential for reducing duplication, 25 of 47 state Medicaid officials (53 percent) responding to our survey reported using the same contractor to develop their MMIS.[59] Similarly, 18 of 44 state officials (41 percent) reported using the same contractor for E&E development.[60] In addition, as previously stated, CMS has identified 10 common areas of functionality for MMIS system modules, including fee-for-service claims, care management, third party liability, and provider management that can be used and shared by states when developing their MMISs. Since the majority of the states are using the same contractor for MMIS and E&E

[56]A group of 13 states, along with their common technology contractor, collaborated to develop the Medical Assistance Provider Incentive Repository application. The repository is an IT tool designed to manage Medicaid electronic health record incentive payments. It relies on a provider portal, provider data, a financial system, and encounter data sources to support processing incentive applications. States can obtain the application at no cost and run it on their own MMIS.

[57]Cloud-based technology is based on the concept of cloud computing, which enables on-demand access to shared computing resources that provide services more quickly and at a lower cost than if agencies maintained these resources independently.

[58]This multi-state procurement effort is through the National Association of State Procurement Officials ValuePoint program—a cooperative purchasing program facilitating public procurement solicitations and agreements. At the time of our review, Montana, Oregon, South Carolina, South Dakota, Virginia, and Wyoming were participating in this program.

[59]Of the 50 states that responded to our survey, three did not respond to the question related to the contractor they used to develop their MMIS.

[60]Of the 50 states that responded to our survey, 6 did not respond to the question regarding the contractor they used to develop their E&E system.

system development and CMS has identified common areas of functionality used for certain system modules, states could leverage sharing and reuse to achieve potential cost savings.

Although CMS encouraged states to share and reuse systems, it was not assisting states in identifying these opportunities by reviewing the various state projects for potential duplicative efforts prior to approving a state's request for funding. Accordingly, only 12 state officials responding to our survey reported that they were sharing an MMIS or module with another state or territory.[61] In addition, none of the states responding to our survey reported that they were sharing an E&E system.[62]

Instead of sharing systems or modules, a number of state officials reported that they shared Medicaid IT-related information through other means. For example, one of the state officials reported that they had shared documentation related to an E&E mobile application, including application code, with six states. Officials also reported sharing lessons learned in meetings, such as the monthly MMIS Cohort meeting. For example, state Medicaid officials in Tennessee stated that they participate in monthly CMS Cohort meetings with other states, contribute procurement-related documents to CMS's reuse repository, and actively participate in opportunities to share lessons learned at the annual Medicaid Enterprise Systems Conference.[63]

According to CMCS officials, they facilitated conversations regarding sharing among states, but did not look across state projects to identify opportunities for states to share, leverage, and reuse technologies prior to approving state-requested funding because of the distributed nature of the APD reviews and the inconsistent standards of documentation prior to the reorganization in 2019. Instead, according to the officials, CMCS continues to both support and encourage states to take the initiative to identify these opportunities.

[61]Of the 50 states that responded to our survey, 22 did not respond to the question regarding the initiatives to share, leverage, and reuse an MMIS.

[62]Of the 50 states that responded to our survey, 22 did not respond to the question regarding the initiatives to share, leverage, and reuse an E&E system.

[63]The National Medicaid Enterprise Systems Conference is an annual meeting for state, federal, and private sector individuals to exchange ideas related to Medicaid systems and heath policy affected by those systems.

Further, CMCS officials said that they provided states with assistance to share information. For example, according to the officials, CMCS worked with many states in the beginning of the implementation of PPACA to ensure that the agency would be ready on the legislatively mandated start date. In addition, the officials said that they developed a modified adjusted gross income eligibility determination module and provided the module to several states, including Tennessee and New Jersey. Moreover, according to CMCS officials, the agency worked with states that had failed to implement and rapidly adopt systems from other states so they would have system capabilities. However, while this type of assistance to states is a positive step, CMS was not looking across state MMIS and E&E projects prior to approving funding to identify opportunities for states to share, leverage, and reuse technologies.

The states responding to our survey, nevertheless, identified challenges in sharing Medicaid IT systems and technologies. Specifically, these states reported that reducing duplication through sharing systems and modules can come at an additional cost to the "host" state. The former Tennessee Medicaid Director noted that there is often an additional cost of sharing for the host state when combining and integrating technology platforms and infrastructure with another state. The director added that costs for some of the core system functionality is fixed, while customizing a system to fit another state's specific needs could be a larger financial undertaking.

Even with the additional costs, however, states responding to our survey identified worthwhile opportunities for reducing duplication and achieving potential cost savings through sharing IT systems and technologies. By not actively identifying and pursuing sharing opportunities across states, CMS is not able to take full advantage of the potential cost savings that could be realized when states share IT systems.

Conclusions

While CMS had approved the majority of the state funding requests to assist in developing, implementing, operating, and maintaining MMIS and E&E systems, the agency's review process had shortcomings and resulted in the approval of billions of dollars in federal funds requested by states for these systems.[64] Specifically, CMS did not ensure its reviews were documented, comprehensive, and consistent, or that its documentation was appropriately managed. This was due, in part, to the

[64]This audit involved a review of funding requests. We did not make a determination about the decisions to provide funding to the states.

lack of formal review and approval procedures and decision-making criteria for the billions of dollars provided to states for their MMIS and E&E systems.

In addition, the agency lacked a comprehensive and risk-based process for overseeing states' use of the approved funding, especially for risky projects. Further, state Medicaid IT projects lacked federal and often state CIO oversight. These challenges were due, in part, to CMS largely relying on the states to monitor and oversee the progress of their IT systems projects, even though CMS has responsibilities for conducting oversight activities. CMS's lack of oversight of state Medicaid IT projects can also be attributed to a change in OMB investment reporting that no longer included IT-related grants made to state and local governments in the dashboard. In an effort to improve oversight, CMS began a new outcome-based certification initiative on one Medicaid-related system that focuses funding decisions on the successful and ongoing achievement of positive business outcomes. However, the agency had not established a timeline for including other systems, including MMIS and E&E, in the new outcome-based process, or documented procedures for how they would use the results of the new process to improve oversight. Until CMS establishes an effective APD review process with formal procedures and decision criteria, a comprehensive and risk-based oversight process, and a timeline and documented procedures for the new outcome-based certification process, CMS will remain at risk of continuing to spend billions of dollars to fund failing state systems projects.

CMS guidance promoted the concept that states should make efforts to reduce the duplication in Medicaid IT through sharing, leveraging, and reusing systems and technologies that other states had already deployed. However, the agency no longer supported most of the duplication reduction initiatives it developed because they failed to produce desired results. Nonetheless, some states have identified and taken action on reducing duplication to achieve cost savings. The potential for duplication is highlighted by the fact that many states use the same contractor for MMIS and E&E systems development. In addition, CMS was not proactively assisting states in identifying opportunities for sharing by reviewing the state projects for duplicative efforts prior to approving a state's request for funding. Until CMS identifies opportunities to reduce duplication among Medicaid IT systems, it risks potential duplicative and wasteful spending on state Medicaid systems.

Recommendations for Executive Action

We are making the following nine recommendations to CMS:

- The Administrator of CMS should develop formal procedures that include specific steps to be taken in the APD review process, including how CMS will document the review (including the name of the reviewer, date of review, and what was reviewed); what documentation should be retained after the review; as well as decision-making criteria for approval or denial decisions for state Medicaid IT funding requests. (Recommendation 1)
- The Administrator of CMS should, as part of the APD review process and prior to approval, verify that all of the required information (e.g. alternatives analysis, feasibility study, and cost benefit analysis) is included in the funding request. (Recommendation 2)
- The Administrator of CMS should ensure that all APD-related artifacts are retained within the designated CMS document management system, including documentation of key information from meetings and email communications with the states, the MITA self-assessment and independent verification and validation reports, when creating APD decision packages. (Recommendation 3)
- The Administrator of CMS should require analysts to maintain relevant MMIS and E&E system artifacts based on the entire system life cycle instead of individual APDs. (Recommendation 4)
- The Administrator of CMS should, in consultation with the HHS and CMS CIOs, develop a documented, comprehensive, and risk-based process for how CMS will select IT projects for technical assistance and provide recommendations to states to assist them in improving the performance of the systems, with consideration to those that are high-cost and performing poorly. (Recommendation 5)
- The Administrator of CMS should encourage state Medicaid program officials to consider involving state CIOs in overseeing Medicaid IT projects. (Recommendation 6)
- The Administrator of CMS should establish a timeline for implementing the outcome-based certification process for MMIS and E&E systems. (Recommendation 7)
- The Administrator of CMS should establish documented procedures for how the results of the outcome-based certification process will be used for conducting oversight and making funding decisions. The procedures should include specific steps that CMCS will take to oversee individual state MMIS and E&E projects and how it will demonstrate that the steps have been taken. (Recommendation 8)

- Prior to approving funding for MMIS and E&E systems, the Administrator of CMS should identify areas of duplication or common functionality, such as core MMIS modules, in order to facilitate sharing, leveraging, or reusing Medicaid technologies. CMS should share the results of the review with the state or territory requesting federal funding for a duplicative or similar project and take steps to encourage states to share, leverage, or reuse Medicaid technologies, where possible. (Recommendation 9)

Agency Comments and Our Evaluation

HHS provided written comments on a draft of this report. In its comments (reproduced in appendix IV), the department concurred with eight of the nine recommendations; it did not state whether it concurred or did not concur with one recommendation. The department also commented generally on the Medicaid program and on specific aspects of our report message. In addition, CMS provided technical comments, which we incorporated, as appropriate.

The department emphasized that CMS serves as the focal point for national program policies and operations related to Medicaid, and that both CMS and states have shared responsibility for administering Medicaid. According to the department, CMS conducts multiple activities to oversee Medicaid expenditures and verify that federal financial participation matches states' actual expenditures. The department, as an example, specifically highlighted the review and approval of all requests for enhanced federal funding discussed in this report. HHS stated that our review of MMIS and E&E funding requests submitted in fiscal years 2016 through 2018 did not reflect the organizational changes made since 2018 and, therefore, provided a review of policies and procedures no longer in place.

While we acknowledge that CMS made certain organizational and procedural changes during the time of our review, the deficiencies we identified in the CMS APD review and approval process, such as CMS not consistently documenting its reviews of APDs and ensuring that APDs included required information, were due, in part, to the absence of formal, documented procedures and decision-making criteria for reviewing and approving APDs. At the time of our review, CMS had not documented these procedures and criteria for the new review and approval process. Therefore, the recommendations we made to improve CMS's APD review and approval process remain relevant and applicable to the agency's current review and approval process.

In its comments, the department also noted that CMS is shifting toward the outcome-based model that we describe in our report. The department stated that, subsequent to our review, CMS had established a process for Medicaid Enterprise Systems state officers' review and a common repository for documents supporting their review. While CMS did not have formal, documented procedures for the APD review and approval process at the time of our evaluation, we intend to follow up with the agency to obtain and assess evidence regarding the APD review process to determine if its actions fully address our recommendation.

Further, the department stated that our finding regarding CMS's abandoned efforts to reduce duplication did not accurately reflect the agency's overall approach to promoting the sharing, leveraging, and reuse of Medicaid technologies among states. According to the department, the report omitted the important context that CMS halted initiatives when they failed to produce desired results in order to prioritize initiatives demonstrating more potential for success.

The department added that there is a great degree of flexibility available to states when implementing their Medicaid programs, which can result in the development of unique IT solutions that are difficult to reuse across states. The department stated, however, that CMS has taken, and plans to take, additional steps to foster an environment of shared learning and potential reuse across states. Specifically, it said that CMS continues to encourage and facilitate discussions among states through monthly cohort meetings in order to promote sharing, leveraging, or reusing Medicaid solutions among states when appropriate.

We have updated our report to reflect the additional context provided by CMS regarding the agency discontinuing many of its efforts to promote sharing, leveraging, and reusing Medicaid technologies. Nevertheless, while the monthly cohort meetings serve as a good resource for states, we continue to believe there are additional steps that CMS could take to further promote sharing and reduce duplication among state systems.

Beyond the aforementioned comments, the department stated that it concurred with eight of the nine recommendations. Specifically, regarding the first four recommendations, the department stated that it had already identified similar consistency issues that states reported related to CMS's review of IT funding requests. The department described that, as part of the February 2019 reorganization, one state officer was assigned to each state rather than two or three systems analysts in an effort to consolidate the review of state IT funding requests.

Also, according to the department, CMS has implemented several process improvements, which are intended to address the first four recommendations. For example, it stated that CMS has implemented a single, unified SharePoint workflow for the review and approval of all state requests. Further, the department stated that CMS has established a common repository for team processes and guidance for state officers, begun conducting standardized, ongoing training for state officers, and developed standard operating procedures for APD processing, among other things. HHS also said it is in the process of updating regulations governing Medicaid IT projects in states, with the intent of ensuring that regulatory and sub-regulatory requirements are consistent across all Medicaid Enterprise System projects and that states are held accountable for outcomes. If implemented effectively, the actions the department described should address the weaknesses related to the first four recommendations.

Further, with regard to recommendation five, the department stated that CMS is in the process of developing a standard approach to assess the health of states' Medicaid Enterprise System projects, which is to enable HHS to make more consistent and better-informed decisions about when and where to direct technical assistance and future investment. According to the department, the HHS and CMS CIO offices will have the opportunity to comment on the proposed regulatory changes previously mentioned. HHS also said it plans to ask other relevant organizations in CMS to review and provide input to the proposed changes. We look forward to assessing CMS's actions to develop a standardized process for evaluating the health of states' projects to determine if the actions fully address our recommendation.

HHS did not say whether it concurred or did not concur with recommendation six. The department said that it works with states to ensure that they have appropriate technology leadership and business sponsorship in place for their significant development efforts. It further noted that states have varying organizational and project management structures, and the department was unable to discern evidence from our review that a certain structure contributed to a specific outcome.

As noted in the report, federal law, such as FITARA, recognizes the importance of the role of the CIO and has provided the federal government with an opportunity to strengthen the authority of the CIOs to provide needed direction and oversight of agencies' IT acquisitions. Our prior reports have also highlighted the importance of CIO involvement in IT projects. For a project to be successful, CIOs need the proper authority

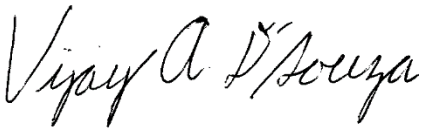
and oversight of their agency's entire IT portfolio. Without such involvement from the CIO, IT projects may not have the technical expertise and oversight needed to be successful. However, CMS provided states with billions of federal dollars every year for Medicaid IT projects that have little or no oversight from either state or federal CIOs. Therefore, we continue to believe that CMS's implementation of this recommendation is essential.

With regard to recommendations seven and eight, HHS stated that the work it has completed and planned for recommendations one through four will also be used for the outcome-based certification process. The department added that it expects to release sub-regulatory guidance on streamlined certification and systems testing in 2020. We intend to follow up with the department and obtain and assess evidence to determine if its actions fully address our recommendation.

Lastly, regarding recommendation nine, HHS stated that it has taken, and plans to continue to take, steps to foster an environment of shared learning and potential reuse across states. According to the department, it also plans to continue to expand and focus on the reuse condition for enhanced funding as an essential requirement for states that receive enhanced federal financial participation. This includes sharing information among state officers and their teams. Further, HHS plans to update regulations and promote reuse by strengthening the conditions for enhanced funding and by focusing on outcomes of projects receiving enhanced funding. As part of our follow up process, we intend to obtain and assess evidence of these actions to determine if they fully address our recommendation.

We are sending copies of this report to the appropriate congressional committees, the Secretary of Health and Human Services, the Administrator of the Centers for Medicare & Medicaid Services, and other interested parties. In addition, the report is available at no charge on the GAO website at http://www.gao.gov.

If you or your staff have any questions about this report, please contact me at (202) 512-6240 or at dsouzav@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made key contributions to this report are listed in appendix V.



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Appendix I: Objectives, Scope, and Methodology

The objectives of our review were to determine (1) the amount of federal funds that CMS has provided to state Medicaid programs to support MMIS and E&E systems' development, operations, and maintenance; (2) the extent to which CMS reviews and approves states' funding requests for MMIS and E&E systems and oversees the use of these funds; and (3) CMS's and states' efforts to reduce potential duplication of Medicaid IT systems and the outcomes of these efforts.

To address the first objective, we analyzed the expenditure data on the expenditures for the design, development, installation, maintenance, and operations for MMIS and E&E systems from fiscal years 2008 through 2018.[1] This included expenditure data from CMS, all 50 states, the District of Columbia, and five territories. We obtained these data—categorized as federal and state expenditures—from the Medicaid Budget Expenditure System.[2] Specifically, we obtained and analyzed the form CMS-64, which states use to report Medicaid expenditures to CMS for the purpose of determining federal funding. We worked with data specialists in our Applied Research and Methods organization to extract from the form CMS-64 the budget lines associated with MMIS and E&E system expenditures related to the design, development, installation, and operations and maintenance of the systems during fiscal years 2008 through 2018. Table 4 summarizes the budget lines used to calculate the expenditures for the design, development, installation, maintenance, and operations for MMIS and E&E systems from fiscal years 2008 through 2018.

[1]We originally selected a 10-year time frame (fiscal years 2008-2017) to provide a long-term, comprehensive view of spending. We included fiscal year 2018 once the data for that year became final. At the time of our review, complete expenditure data for fiscal year 2019 was not available.

[2]CMS tracks state expenditures through the automated Medicaid Budget and Expenditure System (MBES), which allows states to report budgeted and actual expenditures for Medicaid and the Children's Health Insurance Program (CHIP) electronically. The system automatically calculates the amount CMS can provide to the state to fund program operations for MMIS and E&E systems. It also stores the state's historical budget and expenditure records for data analysis purposes.

Table 4: CMS-64 Budget Lines Used to Calculate the Total Expenditures for the Design, Development, Installation, Maintenance, and Operations for Medicaid Management Information Systems (MMIS) and Eligibility and Enrollment (E&E) Systems

CMS-64 Budget Line	Budget Line Name
MMIS design, development, and installation costs	
2A	MMIS—In-house activities
2B	MMIS—private sector
5A	Mechanized systems—In-house
5B	Mechanized systems: private sector
5C	Mechanized systems - not approved under MMIS procedures: interagency
MMIS operations and maintenance costs	
4A	Approved MMIS: In-house activities
4B	Approved MMIS: private
E&E system design, development, and installation costs	
28A	Design development/installation of Medicaid Eligibility determination system—cost of in-house activities
28B	Design Development/Installation of Medicaid eligibility determination system—cost of private sector contractors
E&E system operations and maintenance costs	
28C	Operation of an approved Medicaid eligibility determination system—cost of in-house activities
28D	Operation of an approved Medicaid eligibility determination system—cost of private sector contractors

Source: GAO analysis of CMS-64 data.| GAO-20-179

We supplemented our analysis by interviewing CMS officials knowledgeable about the form CMS-64 and reimbursements to states for MMIS and E&E spending, as well as state Medicaid program officials who were knowledgeable of the steps taken by their respective states to receive federal funds to support MMIS and E&E system implementation and operation.

Further, we incorporated data reliability questions in our interviews with agency officials, such as how the data are derived, maintained, and updated, and how CMS ensures their completeness and accuracy. We found these data to be sufficiently reliable for our reporting purposes.

To address the second objective, we first asked CMS to provide us with a list of all the MMIS and E&E Advanced Planning Documents (APD) that states had submitted to the agency during fiscal years 2016 through

2018, along with information on the approval or denial status of each APD.[3] In response, CMS provided us with a list of 1,353 MMIS and 509 E&E APDs. We then analyzed the information to identify how many of the total APDs had been approved by CMS.

From the list of APDs for fiscal years 2016 through 2018, we identified their approval status—approved, denied, withdrawn, or were pending. From the approved APDs—1263 MMIS and 411 E&E APDs—we selected a generalizable sample of 116 MMS and 83 E&E approved APDs. We then removed 52 MMIS APDs and six E&E APDs because they did not include requests for federal funds and were, therefore, outside the scope of our review.[4] This resulted in a final generalizable sample of 62 MMIS APDs and 77 E&E APDs.[5]

For each APD included in our final sample, we obtained and reviewed the APD decision package.[6] We assessed each APD and its associated decision package against regulations and CMS guidance contained in the Medicaid Enterprise Certification Life Cycle and Medicaid Eligibility and Enrollment Life Cycle for, among other things, evidence of CMS's review and funding approval, and key required elements, where appropriate—

[3]See 45 C.F.R. §95.610. An APD is a recorded plan of action to request federal funding approval for an IT project supporting the Medicaid program.

[4]According to APD documentation submitted by states, states can use the APD process to, for example, request that CMS review a contract or reallocate funds from a preceding to a current fiscal year. This audit includes a review of APD documentation submitted by states. We did not analyze budget or appropriations issues with regard to the APD submissions.

[5]We generalized where appropriate, but where not appropriate due to our sample size, we did not generalize.

[6]According to the *CMS Regional Office MMIS Request Standard Operating Procedures* and the documentation that CMS provided for our review, the decision package is to consist of the state's APD submission and any additional pertinent documentation, including a request for proposals, contracts, and CMS APD review documentation, such as decision memos and financial review checklists, and additional information needed by CMS. CMS guidance for E&E funding requests includes information about what artifacts CMS is to retain, but does not use the term decision package. For consistency purposes, we refer to the artifacts CMS is to retain during the APD review and approval process for each state submitted APD as a decision package.

such as alternatives analyses, feasibility studies, and cost benefit analyses.[7]

We followed a probability procedure based on random selections. Therefore, our sample is only one of a large number of samples that we could have drawn. Since each sample could have provided different estimates, we express the uncertainty with any particular estimate as a 95 percent confidence interval, and this interval is the margin of error. This is the interval that, with repeated sampling, would be expected to contain the actual population value for 95 percent of the samples we could have drawn. As a result, the confidence intervals for 95 percent of the samples that could have been drawn would contain the true population value. Because certainty strata are a census of all files in the strata and do not involve sampling, there are no sampling errors (margin of error) for one strata: MMIS New York Regional Office. We chose to include New York as certainty, in part, due to the small population size of MMIS APDs in New York, relative to the other regional offices and combined population. For E&E, we do not include certainty selections because the overall population is smaller, and none of the offices are particularly small. Table 5 identifies the population and sample sizes for the approved APDs for MMIS and E&E that were in our scope.

Table 5: Population and Sample Sizes for In-Scope Medicaid Management Information System (MMIS) and Eligibility & Enrollment (E&E) Advance Planning Documents (APD) Approved in Fiscal Years 2016, 2017, and 2018 by APD Type and Regional Office (RO).

Strata	APD type	Description	Population counts	Sample size
1	MMIS	RO1- Boston Regional Office	86	6
2	MMIS	RO2- New York Regional Office	14	14
3	MMIS	RO3- Philadelphia Regional Office	134	6
4	MMIS	RO4- Atlanta Regional Office	198	7
5	MMIS	RO5- Chicago Regional Office	118	7
6	MMIS	RO6- Dallas Regional Office	166	5
7	MMIS	RO7- Kansas City Regional Office	76	4
8	MMIS	RO8- Denver Regional Office	171	5
9	MMIS	RO9- San Francisco Regional Office	117	5

[7]See 45 C.F.R. §95.610 and CMS, *Medicaid Enterprise Certification Life Cycle* (Baltimore, MD: September 2007, updated August 2018) and CMS, *Medicaid Eligibility and Enrollment Life Cycle* (Baltimore, MD: August 2017, updated August 2018).

Strata	APD type	Description	Population counts	Sample size
10	MMIS	RO10- Seattle Regional Office	131	4
11	E&E	RO1- Boston Regional Office	55	9
12	E&E	RO2- New York Regional Office	27	5
13	E&E	RO3- Philadelphia Regional Office	40	8
14	E&E	RO4- Atlanta Regional Office	64	13
15	E&E	RO5- Chicago Regional Office	40	7
16	E&E	RO6- Dallas Regional Office	45	8
17	E&E	RO7- Kansas City Regional Office	21	5
18	E&E	RO8- Denver Regional Office	38	8
19	E&E	RO9- San Francisco Regional Office	46	9
20	E&E	RO10- Seattle Regional Office	29	5
Total			**1616**	**140**

Source: GAO analysis of agency data. I GAO-20-179

Further, to assess the extent to which CMS oversees the states' use of funding for MMIS and E&E systems, we identified those APDs in our final sample that included information indicating that the related system development projects may have completed the entire CMS life cycle process and received either certification or post-operational review.[8] We identified a total of four MMIS APDs that met these criteria. We then asked CMS to verify whether the projects related to these four APDs had completed certification. CMS verified that one of the four identified projects had completed certification. Due to the low number of projects identified through this process, we requested that CMS identify three additional examples of MMIS system development projects outside of our sample that had been completed and certified. We then selected the one project we identified (an Alaska MMIS project) and two of the three MMIS projects that CMS provided to us (projects from Ohio and Indiana). Our selection of this purposeful non-generalizable sample of three MMIS

[8]CMS is responsible for oversight (onsite surveys and reviews) of state Automated Data Processing methods and practices to assure that MMIS and E&E systems are being used for purposes consistent with proper and efficient administration of the Medicaid program. See 45 C.F.R. § 95.621. According to CMS's Medicaid Enterprise Lifecycle Process for MMIS and E&E systems, CMS is to do this through a formal certification process for MMIS and a post-operational review process for E&E systems.

projects was from states that were among the top, middle, and lower ranges for total spending.[9]

Further, we identified a total of 21 APDs in our sample that included information indicating that the related E&E system development projects may have received a post-operational review. To supplement our review of these APDs, we also reviewed states' survey responses related to the operational status of their E&E systems. From our review of the APDs and survey responses, we selected two E&E system projects from Ohio and New York—states that were among the top 10 states for total spending. The selection of three MMIS and two E&E systems development projects resulted in a non-probability, non-generalizable sample of state system development projects that had completed the entire CMS life cycle process and received either certification or post-operational review.

For each of the five selected projects, we obtained and reviewed key documentation used by CMS to conduct state project oversight, such as progress reports from the states' independent verification and validation contractors and system certification and post-operational review reports. We also interviewed CMS officials responsible for the review, approval, and oversight of MMIS and E&E funding requests and state Medicaid officials from California, Alaska, Georgia, Maryland, and Mississippi who are charged with implementing IT systems to support the Medicaid program.[10]

We also administered a web-based survey to all 56 states and territories (hereafter referred to as states). The survey solicited the states' views regarding CMS's process for approving the funding of Medicaid IT systems. Before administering the survey, we pretested it by interviewing state Medicaid officials in California, Georgia, and Maryland to ensure that our survey questions and skip pattern were clear and logical and that the respondents could answer the questions without undue burden. We administered the survey from August 2018 to January 2019; therefore, the corresponding responses reflected information and views as of that

[9]We defined the spending ranges as high (states with over $1 billion in spending), mid-range (spending between $500 million to $900 million), and low range (states with spending below $500 million).

[10]California, Georgia, and Maryland were selected because we pretested a survey with Medicaid officials in those states (discussed in the next section and appendix I). Officials from Alaska and Mississippi were interviewed in order to clarify responses these states provided for the survey.

time period. We received 50 responses, for an 89 percent response rate. See appendix III for a copy of the survey administered to states and territories.

To address the third objective, we reviewed relevant regulations and guidance on promoting, sharing, and reusing MMIS and E&E technologies. Specifically, we reviewed regulations related to mechanized claims processing and information retrieval systems,[11] the August 2016 *State Medicaid Director Letter Regarding Modularity*, and the April 2018 *State Medicaid Letter Regarding Reuse*.[12] We also reviewed and analyzed documentation related to CMS initiatives for encouraging states to share and reuse Medicaid IT. This documentation included CMS's 2018 *Open Source Provider Screening Module* presentation conducted by CMS's Data and Systems Group and screenshots depicting the initiatives CMS had underway to encourage states to share and reuse MMIS and E&E technologies.

To obtain perspectives from the states, we included in our survey to them, questions related to their initiatives to share, leverage, and reuse MMIS and E&E systems. The questions also related to performance measures, results, and challenges associated with their initiatives, among other things. Further, we reviewed any supporting documentation provided with the survey responses.

We supplemented our assessment with discussions with knowledgeable CMS officials in the Data Systems Group, as well as state Medicaid agency officials to discuss CMS's efforts underway to reduce IT duplication and promote reuse. We also interviewed Medicaid officials in various states, including California, Alaska, and Mississippi, to discuss CMS's efforts underway to encourage sharing and reuse technologies. We had discussions with these specific states based on survey responses regarding their efforts and CMS efforts to implement initiatives to share and reuse technologies.

[11]42 C.F.R. § 433.112(b)(13) requires that a system must meet the condition to promote sharing, leverage, and reuse of Medicaid technologies and systems among and within states.

[12]CMS, *State Medicaid Director Letter, SMD #16-010 Regarding CMS-2392-F Mechanized Claims Processing and Information Retrieval Systems–Modularity* (Baltimore, MD: August 2016) and *State Medicaid Director Letter, SMD # 18-005 Regarding CMS-2392-F Mechanized Claims Processing and Information Retrieval Systems–Reuse* (Baltimore, MD: April 2018)

We conducted this performance audit from February 2018 to September 2020 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Appendix II: Total Spending for Medicaid Management Information Systems and Eligibility and Enrollment Systems

Total spending for Medicaid Management Information Systems (MMIS) and Eligibility and Enrollment (E&E) Systems by state or territory from fiscal year 2008 through 2018 is listed in the following table.

Table 6: Total Spending for Medicaid Management Information Systems (MMIS) and Eligibility and Enrollment (E&E) Systems by State or Territory from Fiscal Year (FY) 2008 through 2018

Dollars in millions

State	Total MMIS and E&E spending from FY 2008-2018	State/Territory	Total MMIS and E&E spending FY 2008-2018
Alaska	**236.10**	North Dakota	**281.72**
Alabama	**352.80**	Nebraska	**251.75**
Arkansas	**768.70**	New Hampshire	**294.02**
Arizona	**375.33**	New Jersey	**572.78**
California	**3,548.11**	New Mexico	**319.30**
Colorado	**436.43**	Nevada	**344.25**
Connecticut	**709.66**	New York	**1,627.10**
District of Columbia	**343.47**	Ohio	**1,195.81**
Delaware	**334.89**	Oklahoma	**424.42**
Florida	**636.28**	Oregon	**495.18**
Georgia	**1,177.68**	Pennsylvania	**1,369.18**
Hawaii	**374.95**	Rhode Island	**429.78**
Iowa	**537.46**	South Carolina	**663.49**
Idaho	**318.40**	South Dakota	**101.48**
Illinois	**610.58**	Tennessee	**902.66**
Indiana	**738.24**	Texas	**2,253.44**
Kansas	**431.35**	Utah	**336.02**
Kentucky	**546.55**	Virginia	**463.33**
Louisiana	**507.24**	Vermont	**232.34**
Massachusetts	**1,093.42**	Washington	**685.08**
Maryland	**493.35**	Wisconsin	**603.93**
Maine	**438.14**	West Virginia	**382.91**
Michigan	**1,645.88**	Wyoming	**168.65**
Minnesota	**756.27**	American Samoa	**0**[a]
Missouri	**678.09**	Guam	**0**[b]
Mississippi	**335.09**	Northern Mariana	**.04**

State	Total MMIS and E&E spending from FY 2008-2018	State/Territory	Total MMIS and E&E spending FY 2008-2018
Montana	**190.05**	Puerto Rico	**65.46**
North Carolina	**1,159.71**	Virgin Islands	**48.02**

Source: GAO analysis of agency data. I GAO-20-179

Notes: The cost of Medicaid information technology includes both the fixed costs of creating a Medicaid IT system that provides basic functions and complies with CMS requirements, as well as variable costs that increase with the number of enrollees and providers. States with higher enrollment often have higher total costs and are among the states with the lowest per-enrollee costs. In contrast, states with lower enrollment have higher per enrollee costs. This could happen even if the large and small states were equally efficient simply because increases in enrollment raise variable costs but divide fixed costs over more enrollees.

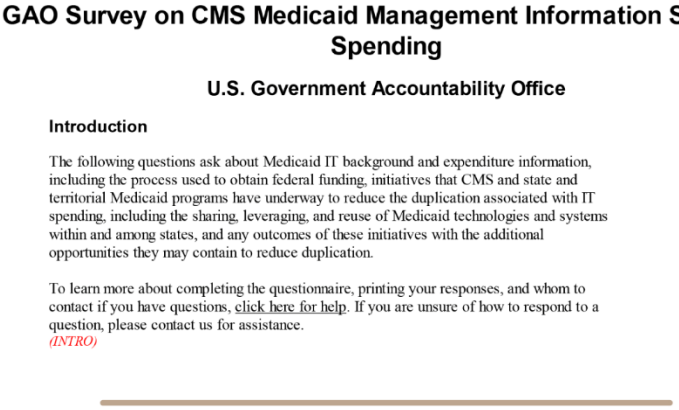
[a]According to Medicaid officials in American Samoa, the territory does not have electronic systems and, instead, processes their Medicaid claims and enrollments manually.

[b]The Medicaid officials in Guam did not provide a response regarding their MMIS and E&E systems.

Appendix III: Copy of the Survey Administered to States and Territories

The questions we asked in our survey of 50 states and six territories from August 2018 to January 2019 are shown in figure 2. For a more detailed discussion of our survey methodology, see appendix I.

Figure 2: Survey Regarding Medicaid Management Information Systems (MMIS) and Eligibility & Enrollment (E&E) Systems Spending



GAO Survey on CMS Medicaid Management Information Systems Spending

U.S. Government Accountability Office

Introduction

The following questions ask about Medicaid IT background and expenditure information, including the process used to obtain federal funding, initiatives that CMS and state and territorial Medicaid programs have underway to reduce the duplication associated with IT spending, including the sharing, leveraging, and reuse of Medicaid technologies and systems within and among states, and any outcomes of these initiatives with the additional opportunities they may contain to reduce duplication.

To learn more about completing the questionnaire, printing your responses, and whom to contact if you have questions, click here for help. If you are unsure of how to respond to a question, please contact us for assistance.
(INTRO)

Source: GAO. | GAO-20-179

Medicaid IT Background and Cost Information - MMIS

Please answer the following questions about your state/territory's Medicaid Management Information Systems (MMIS).
(INTROU1)

1. Does your state/territory have a MMIS?
   - Yes *(DISPLAY D1A)*
   - No
   - Don't know

   Reset
   (Q1)

(D1A)

2. Is your state/territory's MMIS currently a modular system?
   - Yes *(DISPLAY D2A)*
   - No
   - Don't know

   Reset
   (Q2)

(D2A)

2a. How many modules comprise your state/territory's MMIS?
(Q2A)

2b. Please briefly describe each of the modules.
(Q2B)

2c. Which of the modules is the most crucial? Crucial is defined as the most important and/or expensive module.
(Q2C)

2d. What is the lifecycle cost of this module?
(Q2D)

For the remaining questions, when we refer to MMIS please answer these questions based on the module you identified as the most crucial.
(Q2DU1)

3. What year did your state/territory's current MMIS become operational (initial operating capability)?
(Q3)

4. What year was your state/territory's current MMIS certified by CMS? *If it has not been certified, please enter "not certified."*

Source: GAO. | GAO-20-179

(Q4)

5. Does your state/territory have plans to replace or upgrade your current MMIS?
- Yes (DISPLAY D5A)
- No

↻ Reset

(Q5)

(D5A)

5a. Please describe the planned replacement or upgrade.

(Q5A)

5b. What is the timeframe for the replacement or upgrade, including planned completion date?

(Q5B)

6. Did your state/territory have a primary contractor responsible for developing the MMIS or the latest upgrade to the system?
- Yes (DISPLAY D6A)
- No (DISPLAY D6B)

↻ Reset

(Q6)

(D6A)

6a. What is the name of the primary contractor?

(Q6A)

(D6B)

6b. Why didn't your state/territory have a primary contractor to develop the MMIS (e.g., MMIS was developed in-house)?

(Q6B)

7. Does your state/territory have a primary contractor responsible for operating the MMIS?
- Yes (DISPLAY D7A)
- No (DISPLAY D7C)

↻ Reset

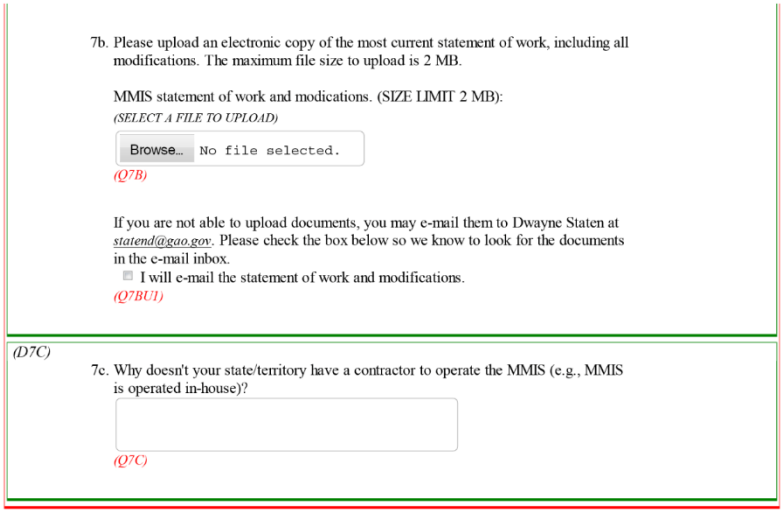
(Q7)

(D7A)

7a. What is the name of the primary contractor?

(Q7A)

Source: GAO. | GAO-20-179



7b. Please upload an electronic copy of the most current statement of work, including all modifications. The maximum file size to upload is 2 MB.

MMIS statement of work and modications. (SIZE LIMIT 2 MB):

(SELECT A FILE TO UPLOAD)

Browse... No file selected.

(Q7B)

If you are not able to upload documents, you may e-mail them to Dwayne Staten at statend@gao.gov. Please check the box below so we know to look for the documents in the e-mail inbox.

☐ I will e-mail the statement of work and modifications.

(Q7BU1)

(D7C)

7c. Why doesn't your state/territory have a contractor to operate the MMIS (e.g., MMIS is operated in-house)?

(Q7C)

Source: GAO. | GAO-20-179

Medicaid IT Background and Cost Information - E&E

Please answer the following questions about your state/territory's Medicaid Eligibility and Enrollment (E&E) System.
(Q7CU1)

8. Does your state/territory have a E&E system?
   - Yes *(DISPLAY D8A)*
   - No
   - Don't know

   ↻ Reset

(Q8)

(D8A)

9. What year did your state/territory's current E&E system become operational (initial operating capability)?

(Q9)

10. If applicable, what year did your state/territory conduct a post operational review?

(Q10)

11. Does your state/territory have plans to replace or upgrade your current E&E system?
    - Yes *(DISPLAY D11A)*
    - No

    ↻ Reset

(Q11)

(D11A)

11a. Please describe the planned replacement or upgrade.

(Q11A)

11b. What is the timeframe for the replacement or upgrade, including planned completion date?

(Q11B)

12. Did your state/territory have a primary contractor responsible for developing the E&E system?
    - Yes *(DISPLAY D13A)*
    - No *(DISPLAY D13B)*

    ↻ Reset

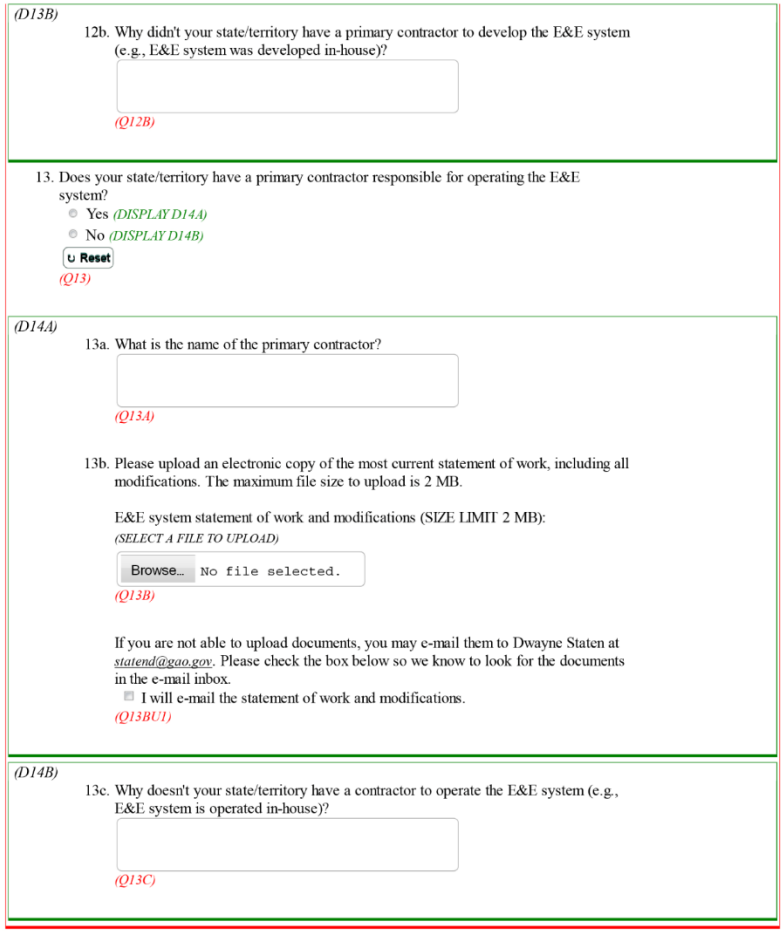
(Q12)

(D13A)

12a. What is the name of the primary contractor?

(Q12A)

Source: GAO. | GAO-20-179



(D13B)

12b. Why didn't your state/territory have a primary contractor to develop the E&E system (e.g., E&E system was developed in-house)?

(Q12B)

13. Does your state/territory have a primary contractor responsible for operating the E&E system?

- Yes (DISPLAY D14A)
- No (DISPLAY D14B)

Reset

(Q13)

(D14A)

13a. What is the name of the primary contractor?

(Q13A)

13b. Please upload an electronic copy of the most current statement of work, including all modifications. The maximum file size to upload is 2 MB.

E&E system statement of work and modifications (SIZE LIMIT 2 MB):

(SELECT A FILE TO UPLOAD)

Browse... No file selected.

(Q13B)

If you are not able to upload documents, you may e-mail them to Dwayne Staten at statend@gao.gov. Please check the box below so we know to look for the documents in the e-mail inbox.

- I will e-mail the statement of work and modifications.

(Q13BU1)

(D14B)

13c. Why doesn't your state/territory have a contractor to operate the E&E system (e.g., E&E system is operated in-house)?

(Q13C)

Source: GAO. | GAO-20-179

Process for Federal Funding for Medicaid IT Systems

14. Are the steps to receive approval for federal funding for Medicaid IT systems challenging? If they are challenging, please describe the top challenges.
(Q14)

Steps	Challenging	Describe Top Challenge(s)
14a. Planning (Planning APD) *(Q14A)*	○ Yes *(DISPLAY D15A)* ○ No ○ Don't know ○ Not applicable ↻ Reset *(Q14AU1)*	*(D15A)* *(Q14AU2)*
14b. Design, Development, and Installation (Implementation APD) *(Q14B)*	○ Yes *(DISPLAY D15B)* ○ No ○ Don't know ○ Not applicable ↻ Reset *(Q14BU1)*	*(D15B)* *(Q14BU2)*
14c. Operations and Maintenance (Operations APD Update) *(Q14C)*	○ Yes *(DISPLAY D15C)* ○ No ○ Don't know ○ Not applicable ↻ Reset *(Q14CU1)*	*(D15C)* *(Q14CU2)*

15. If challenges were identified in receiving approval for federal funding for Medicaid IT systems, were they reported to CMS?
○ Yes
○ No
○ Not applicable (e.g. no challenges were identified)
↻ Reset
(Q15)

16. How, if at all, has CMS assisted your state/territory with these challenges?
(Q16)

17. What role, if any, does your state/territory CIO have in approving and overseeing your MMIS systems?
(Q17)

18. What role, if any, does your state/territory CIO have in approving and overseeing your E&E systems?
(Q18)

Source: GAO. | GAO-20-179

Medicaid Initiatives and Outcomes

The following questions relate to initiatives (either formal or informal) to share, leverage, and/or reuse Medicaid technologies (e.g. MMIS and E&E) with other states.
(Q18U1)

19. Do you have any state/territory-led initiatives or other activities (either planned or underway) to share, leverage, and/or reuse Medicaid technologies, including MMIS and E&E, with other states/territories? For example, the initiatives or activities may include sharing of resources, such as two states using the same MMIS, sharing program management office resources and MMIS functionality and/or modules, working with the technical advisory group and participating in meetings to promote sharing and reuse of MMIS functionality.
   - ○ Yes *(DISPLAY D20A)*
   - ○ No *(DISPLAY D20NO)*
   - ○ Not applicable *(DISPLAY D20NA)*

   ↻ Reset

(Q19)

(D20NO)

19a. Please explain why your program does not have any current or planned state/territory led initiative(s).

(Q19A)

(D20NA)

19b. Please explain why this question is not applicable.

(Q19B)

(D20A)

20. Please describe the initiative(s) or other activities led by your program to share, leverage, and/or reuse Medicaid technologies.

(Q20)

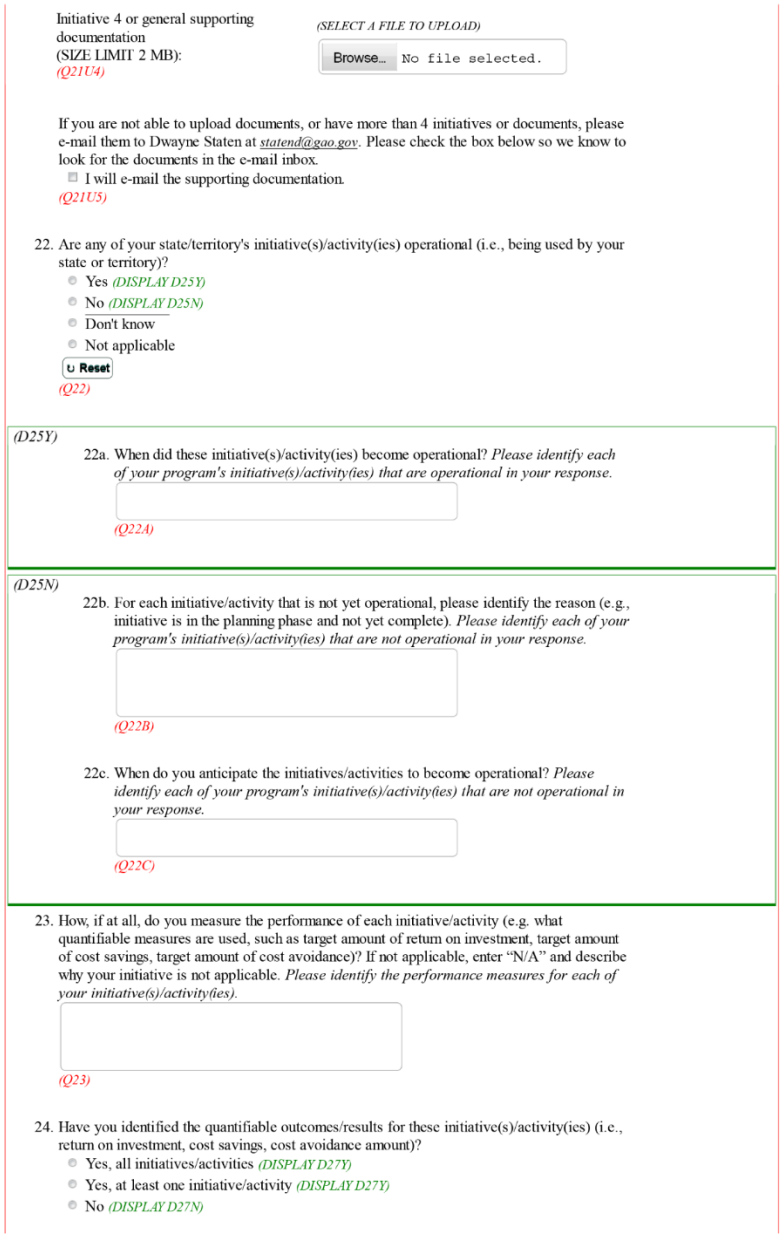
21. Please upload supporting documentation that describes the cost, purpose, and performance measures for the intiative(s)/activity(ies) (e.g. project plans, cost estimates, etc.). The maximum file size to upload is 2 MB.
(Q21)

Initiative 1 supporting document (SIZE LIMIT 2 MB):
(Q21U1)
(SELECT A FILE TO UPLOAD)
Browse... No file selected.

Initiative 2 or general supporting documentation (SIZE LIMIT 2 MB):
(Q21U2)
(SELECT A FILE TO UPLOAD)
Browse... No file selected.

Initiative 3 or general supporting documentation (SIZE LIMIT 2 MB):
(Q21U3)
(SELECT A FILE TO UPLOAD)
Browse... No file selected.

Source: GAO. | GAO-20-179



Initiative 4 or general supporting documentation
(SIZE LIMIT 2 MB):
(Q21U4)

(SELECT A FILE TO UPLOAD)

Browse... No file selected.

If you are not able to upload documents, or have more than 4 initiatives or documents, please e-mail them to Dwayne Staten at statend@gao.gov. Please check the box below so we know to look for the documents in the e-mail inbox.

☐ I will e-mail the supporting documentation.

(Q21U5)

22. Are any of your state/territory's initiative(s)/activity(ies) operational (i.e., being used by your state or territory)?

- ○ Yes *(DISPLAY D25Y)*
- ○ No *(DISPLAY D25N)*
- ○ Don't know
- ○ Not applicable

↻ Reset

(Q22)

(D25Y)

22a. When did these initiative(s)/activity(ies) become operational? *Please identify each of your program's initiative(s)/activity(ies) that are operational in your response.*

(Q22A)

(D25N)

22b. For each initiative/activity that is not yet operational, please identify the reason (e.g., initiative is in the planning phase and not yet complete). *Please identify each of your program's initiative(s)/activity(ies) that are not operational in your response.*

(Q22B)

22c. When do you anticipate the initiatives/activities to become operational? *Please identify each of your program's initiative(s)/activity(ies) that are not operational in your response.*

(Q22C)

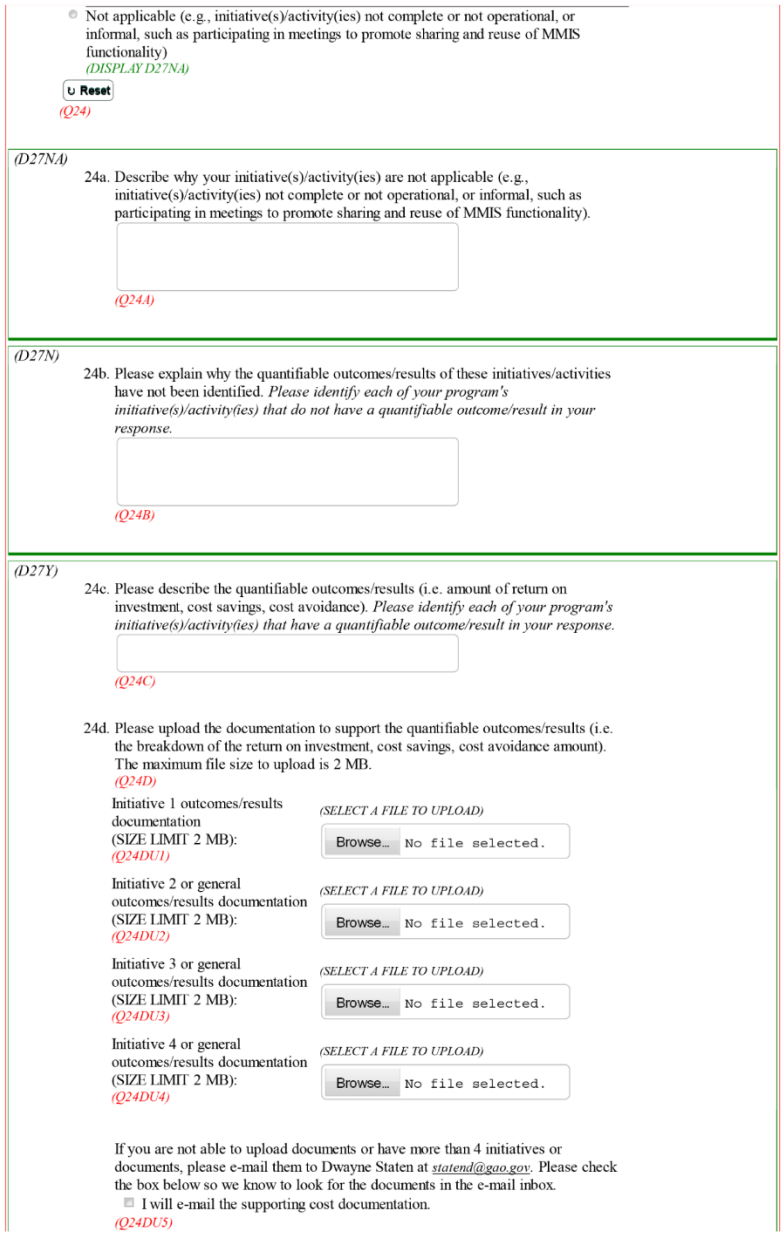
23. How, if at all, do you measure the performance of each initiative/activity (e.g. what quantifiable measures are used, such as target amount of return on investment, target amount of cost savings, target amount of cost avoidance)? If not applicable, enter "N/A" and describe why your initiative is not applicable. *Please identify the performance measures for each of your initiative(s)/activity(ies).*

(Q23)

24. Have you identified the quantifiable outcomes/results for these initiative(s)/activity(ies) (i.e., return on investment, cost savings, cost avoidance amount)?

- ○ Yes, all initiatives/activities *(DISPLAY D27Y)*
- ○ Yes, at least one initiative/activity *(DISPLAY D27Y)*
- ○ No *(DISPLAY D27N)*

Source: GAO. | GAO-20-179



Not applicable (e.g., initiative(s)/activity(ies) not complete or not operational, or informal, such as participating in meetings to promote sharing and reuse of MMIS functionality)
(DISPLAY D27NA)

Reset
(Q24)

(D27NA)

24a. Describe why your initiative(s)/activity(ies) are not applicable (e.g., initiative(s)/activity(ies) not complete or not operational, or informal, such as participating in meetings to promote sharing and reuse of MMIS functionality).
(Q24A)

(D27N)

24b. Please explain why the quantifiable outcomes/results of these initiatives/activities have not been identified. *Please identify each of your program's initiative(s)/activity(ies) that do not have a quantifiable outcome/result in your response.*
(Q24B)

(D27Y)

24c. Please describe the quantifiable outcomes/results (i.e. amount of return on investment, cost savings, cost avoidance). *Please identify each of your program's initiative(s)/activity(ies) that have a quantifiable outcome/result in your response.*
(Q24C)

24d. Please upload the documentation to support the quantifiable outcomes/results (i.e. the breakdown of the return on investment, cost savings, cost avoidance amount). The maximum file size to upload is 2 MB.
(Q24D)

Initiative 1 outcomes/results documentation (SIZE LIMIT 2 MB):
(Q24DU1)
(SELECT A FILE TO UPLOAD)
Browse... No file selected.

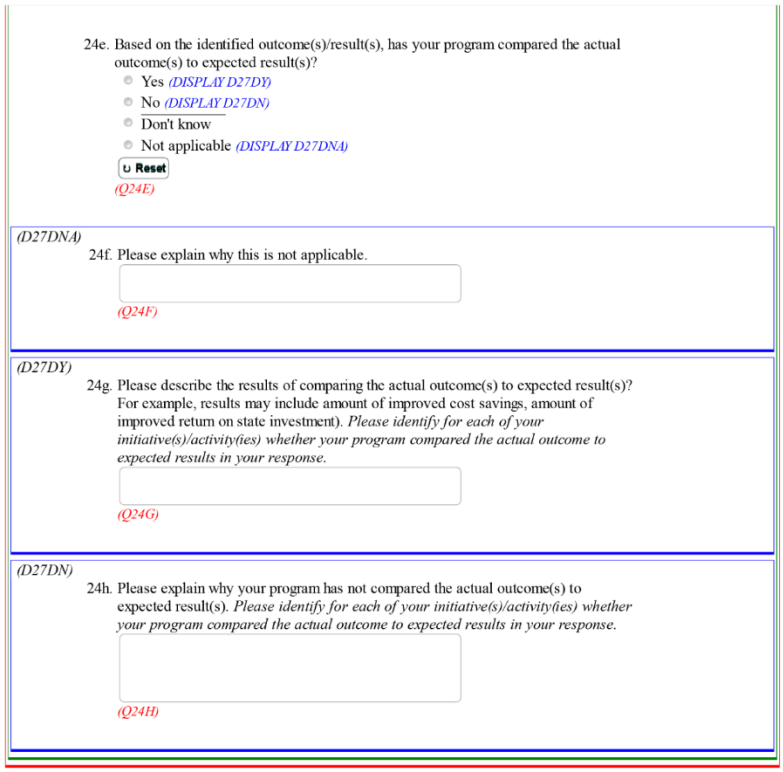
Initiative 2 or general outcomes/results documentation (SIZE LIMIT 2 MB):
(Q24DU2)
(SELECT A FILE TO UPLOAD)
Browse... No file selected.

Initiative 3 or general outcomes/results documentation (SIZE LIMIT 2 MB):
(Q24DU3)
(SELECT A FILE TO UPLOAD)
Browse... No file selected.

Initiative 4 or general outcomes/results documentation (SIZE LIMIT 2 MB):
(Q24DU4)
(SELECT A FILE TO UPLOAD)
Browse... No file selected.

If you are not able to upload documents or have more than 4 initiatives or documents, please e-mail them to Dwayne Staten at statend@gao.gov. Please check the box below so we know to look for the documents in the e-mail inbox.
I will e-mail the supporting cost documentation.
(Q24DU5)

Source: GAO. | GAO-20-179



24e. Based on the identified outcome(s)/result(s), has your program compared the actual outcome(s) to expected result(s)?

- Yes *(DISPLAY D27DY)*
- No *(DISPLAY D27DN)*
- Don't know
- Not applicable *(DISPLAY D27DNA)*

Reset

(Q24E)

(D27DNA)

24f. Please explain why this is not applicable.

(Q24F)

(D27DY)

24g. Please describe the results of comparing the actual outcome(s) to expected result(s)? For example, results may include amount of improved cost savings, amount of improved return on state investment). *Please identify for each of your initiative(s)/activity(ies) whether your program compared the actual outcome to expected results in your response.*

(Q24G)

(D27DN)

24h. Please explain why your program has not compared the actual outcome(s) to expected result(s). *Please identify for each of your initiative(s)/activity(ies) whether your program compared the actual outcome to expected results in your response.*

(Q24H)

Source: GAO. | GAO-20-179

Medicaid Initiatives and Outcomes - part 2

25. Have you encountered challenges in implementing your initiative(s) to share, leverage, and/or reuse Medicaid technologies, including MMIS, within and/or across other states?
- Yes *(DISPLAY D36)*
- No
- Don't know
- Not applicable (e.g., initiative/activity is not operational or informal) *(DISPLAY D36NA)*

Reset

(Q25)

(D36NA)

25a. Please explain why initiative/activity is not applicable (e.g initiative/activity is not operational or informal).

(Q25A)

(D36)

25b. Please describe the top three challenges.

(Q25B)

26. Do you have any suggestions for additional steps your program can take or additional opportunities that may exist to promote sharing, leveraging, and reuse of technologies within and/or across states?
- Yes *(DISPLAY D35)*
- No
- Don't know

Reset

(Q26)

(D35)

26a. What are the suggestions for additional steps or opportunities?

(Q26A)

Source: GAO. | GAO-20-179

CMS Initiatives

The following questions relate to CMS-led initiatives that promote the sharing, leveraging, and/or reuse of Medicaid technologies, including MMIS, within and among states.
(Q26AU1)

27. Has a Medicaid Information Technology Architecture (MITA) self-assessment been completed for your state/territory's Medicaid program?
- Yes *(DISPLAY D42A)*
- No *(DISPLAY D42B)*
- Don't know

Reset
(Q27)

(D42B)

27a. Please explain why your state/territory does not have a MITA self-asssessment.

(Q27A)

(D42A)

27b. What challenges, if at all, have you faced regarding completing the MITA self-assessment for your state/territory's Medicaid program?

(Q27B)

28. Has your state/territory used the Open Source Provider Enrollment and Screening Module that was initiated by CMS to provide states and territories with MMIS core functionality associated with open provider enrollment and screening activities?
- Yes *(DISPLAY D43A)*
- No *(DISPLAY D43C)*
- Don't know

Reset
(Q28)

(D43C)

28a. Please explain why your program did not use the Open Source Provider Enrollment and Screening Module.

(Q28A)

(D43A)

28b. How has your program used the Open Source Provider Enrollment and Screening Module?

(Q28B)

28c. What challenges, if at all, have you faced regarding using the Open Source Provider Enrollment and Screening Module?

(Q28C)

Source: GAO. | GAO-20-179

29. Has your program used the Medicaid Enterprise Reuse Repository?
- Yes *(DISPLAY D44A)*
- No *(DISPLAY D44C)*
- Don't know

Reset

(Q29)

(D44C)

29a. Please explain why your program did not use the Medicaid Enterprise Reuse Repository.

(Q29A)

(D44A)

29b. How has your program used the Medicaid Enterprise Reuse Repository?

(Q29B)

29c. What challenges, if at all, have you faced regarding using the Medicaid Enterprise Reuse Repository?

(Q29C)

30. Has your program used the Poplin Project which includes the development of free, open-source application programming interfaces for states and territories aimed at developing a modular MMIS?
- Yes *(DISPLAY D45A)*
- No *(DISPLAY D45C)*
- Don't know

Reset

(Q30)

(D45C)

30a. Please explain why your program did not use the Poplin Project.

(Q30A)

(D45A)

30b. How has your program used the Poplin Project?

(Q30B)

30c. What challenges, if at all, have you faced regarding using the Poplin Project?

(Q30C)

Source: GAO. | GAO-20-179

CMS Initiatives - part 2

31. If you have identified challenges regarding implementing the CMS initiatives, what assistance, if at all, has CMS provided to your Medicaid program to address these challenges?

(Q31)

32. How useful are the following initiatives to your program in terms of promoting sharing, leveraging, and reuse of Medicaid technologies within your state and/or across states and territories?
(Q32)

CMS Initiative	Usefulness	If the initiative was useful, how was it useful to your program
32a. MITA 3.0, including self-assessment, checklists, etc. *(Q32A)*	○ Very Useful ○ Somewhat Useful ○ Slightly Useful ○ Not at all Useful ○ Not Used ↻ Reset *(Q32AU1)*	*(Q32AU2)*
32b. Open Source Provider Enrollment and Screening Module *(Q32B)*	○ Very Useful ○ Somewhat Useful ○ Slightly Useful ○ Not at all Useful ○ Not Used ↻ Reset *(Q32BU1)*	*(Q32BU2)*
32c. Medicaid Enterprise Reuse Repository *(Q32C)*	○ Very Useful ○ Somewhat Useful ○ Slightly Useful ○ Not at all Useful ○ Not Used ↻ Reset *(Q32CU1)*	*(Q32CU2)*
32d. Poplin Project *(Q32D)*	○ Very Useful ○ Somewhat Useful ○ Slightly Useful ○ Not at all Useful ○ Not Used ↻ Reset *(Q32DU1)*	*(Q32DU2)*

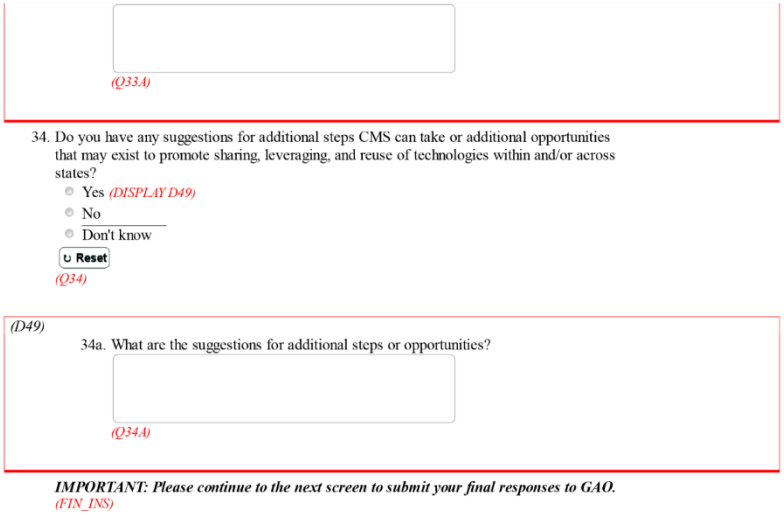
33. Are there any other initiatives that your program is working with CMS and participating in to promote the sharing, leveraging, and reuse of Medicaid technologies across and/or within states and territories?

○ Yes *(DISPLAY D48)*
○ No
○ Don't know
↻ Reset
(Q33)

(D48)

33a. Please describe the other initiative(s).

Source: GAO. | GAO-20-179



(Q33A)

34. Do you have any suggestions for additional steps CMS can take or additional opportunities that may exist to promote sharing, leveraging, and reuse of technologies within and/or across states?

- Yes *(DISPLAY D49)*
- No
- Don't know

Reset

(Q34)

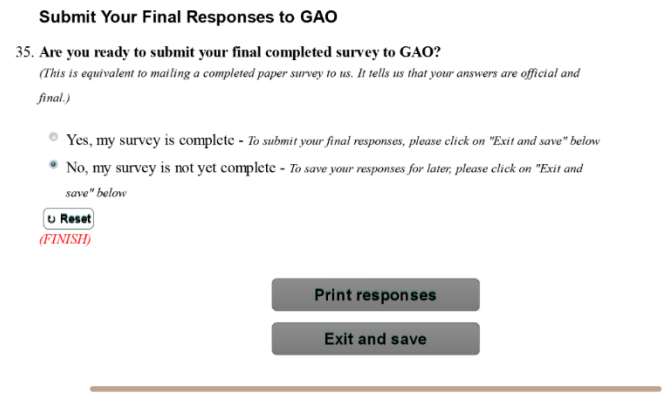
(D49)

34a. What are the suggestions for additional steps or opportunities?

(Q34A)

IMPORTANT: Please continue to the next screen to submit your final responses to GAO.
(FIN_INS)

Source: GAO. | GAO-20-179



Submit Your Final Responses to GAO

35. **Are you ready to submit your final completed survey to GAO?**
(This is equivalent to mailing a completed paper survey to us. It tells us that your answers are official and final.)

- Yes, my survey is complete - *To submit your final responses, please click on "Exit and save" below*
- No, my survey is not yet complete - *To save your responses for later, please click on "Exit and save" below*

Reset

(FINISH)

Print responses

Exit and save

Source: GAO. | GAO-20-179

Appendix IV: Comments from the Department of Health and Human Services

DEPARTMENT OF HEALTH & HUMAN SERVICES
OFFICE OF THE SECRETARY

Assistant Secretary for Legislation
Washington, DC 20201

August 3, 2020

Vijay A. D'Souza
Director, Director, Information Technology & Cybersecurity
U.S. Government Accountability Office
441 G Street NW
Washington, DC 20548

Dear Mr. D'Souza:

Attached are comments on the U.S. Government Accountability Office's (GAO) report entitled, *"Medicaid Information Technology: Effective CMS Oversight and States' Sharing of Claims Processing and Information Retrieval Systems Can Reduce Costs"* (Job Code 102608/GAO-20-179).

The Department appreciates the opportunity to review this report prior to publication.

Sincerely,

Sarah C. Arbes -S

Digitally signed by Sarah C. Arbes -S
Date: 2020.08.04 16:34:54 -04'00'

Sarah C. Arbes
Assistant Secretary for Legislation

Attachment

GENERAL COMMENTS FROM THE DEPARTMENT OF HEALTH & HUMAN SERVICES ON THE GOVERNMENT ACCOUNTABILITY OFFICE'S DRAFT REPORT ENTITLED – MEDICAID INFORMATION TECHNOLOGY: EFFECTIVE CMS OVERSIGHT AND STATES' SHARING OF CLAIMS PROCESSING AND INFORMATION RETRIEVAL SYSTEMS CAN REDUCE COSTS (GAO-20-179)

The U.S. Department of Health & Human Services (HHS) appreciates the opportunity from the Government Accountability Office (GAO) to review and comment on this draft report examining HHS' role in approving and overseeing the use of federal funds for Medicaid Information Technology (IT) spending. HHS takes seriously its responsibilities to protect taxpayer funds while also achieving Medicaid program and business goals.

As noted in the GAO's report, the Centers for Medicare & Medicaid Services (CMS) serves as the focal point for all national program policies and operations related to Medicaid. Because Medicaid is jointly funded by states and the Federal Government, and is administered by states within Federal guidelines, both CMS and states have key roles as stewards of the program, and work together closely to carry out these responsibilities. As such, CMS conducts multiple activities to oversee Medicaid expenditures and verify that Federal financial participation (FFP) matches states' actual expenditures. This includes the review and approval of all requests for enhanced federal funding for the design, development, installation, and operation of state Medicaid Enterprise Systems (MES).

The GAO's review of state Medicaid Management Information System (MMIS) and Eligibility and Enrollment (E&E) funding requests submitted to CMS between 2016 and 2018 examines important issues, but does not reflect the significant organizational and programmatic changes made since 2018, most notably, the establishment of the MES team in early 2019. As a result, the GAO's report provides a review of some organizational policies and procedures no longer in place.

CMS is actively shifting towards a model focusing IT investments on achieving state program goals while also basing decisions for enhanced federal funding on project outcomes. While the GAO notes the new standard operating procedures for CMS' review of MMIS and E&E funding requests were not formalized during the time of their review, CMS has established a process for MES State Officers' review, and a common repository for documents supporting the CMS review now exists.

While CMS also plans to strengthen our oversight of MES investments through rule-making, we have taken steps under our existing regulatory authority to implement improvements. For example, we are asking states to identify business and program outcomes to be achieved through IT investments, and we will be strengthening our requirements for system testing and business cases (describing outcomes) as states bring new development requests to us. CMS also intends to incorporate this information on Medicaiv.gov. We are ensuring that members of the CMS MES team, known as MES "state officers" are trained in Medicaid program and policy knowledge to better ensure that systems meet regulatory requirements for such things as eligibility determination timeliness.

Additionally, the GAO's finding regarding CMS' abandoned efforts to reduce duplication does not accurately reflect the agency's overall approach to promoting the sharing, leveraging, and/or reuse of Medicaid technologies among states. CMS has halted reuse efforts not demonstrating positive results. However, in more promising areas, CMS has taken, and plans to take several more, steps to foster an environment of shared learning and potential re-use across states.

GENERAL COMMENTS FROM THE DEPARTMENT OF HEALTH & HUMAN SERVICES ON THE GOVERNMENT ACCOUNTABILITY OFFICE'S DRAFT REPORT ENTITLED – MEDICAID INFORMATION TECHNOLOGY: EFFECTIVE CMS OVERSIGHT AND STATES' SHARING OF CLAIMS PROCESSING AND INFORMATION RETRIEVAL SYSTEMS CAN REDUCE COSTS (GAO-20-179)

Further, the report omits the important context that CMS halted these initiatives when they failed to produce desired results, in order to prioritize initiatives demonstrating more potential for success. As noted previously, there is a great degree of flexibility available to states in the implementation of their Medicaid programs, which can result in the development of unique IT solutions difficult to reuse across states. However, CMS continues to encourage and facilitate discussions among states through monthly cohort meetings in order to promote sharing, leveraging, or reusing Medicaid solutions among states when appropriate.

As noted in the GAO's report, CMS has begun to transition its Medicaid systems certification process to one evaluating how well Medicaid IT systems support desired business outcomes while also reducing the burden on states and CMS to conduct certification. This streamlined approach, referred to as Outcomes-Based Certification (OBC), was designed with the goal of ensuring systems receiving federal financial participation are meeting the business needs of the state and of CMS. OBC is being tested and implemented incrementally across the MES. Electronic Visit Verification (EVV) systems are the first to be certified based upon outcomes and reporting. An informational bulletin released in October of 2019[1] provided guidance on the OBC process for states requesting enhanced federal funding for their EVV solutions.

CMS appreciates the opportunity to improve the review and approval of these systems. While the GAO's findings and recommendations do not represent the organizational changes made since their review, they will continue to inform ongoing efforts to strengthen CMS oversight of state systems investments. CMS agrees with the spirit of the GAO's recommendations, and as such, is currently working to improve procedures related to the review and approval of these systems through process and documentation enhancements, regulatory changes, risk-based analyses of state systems, outcomes based certification, and information sharing among states. CMS is responding to the GAO's recommendations through this perspective.

Recommendation 1

The Administrator of CMS should develop formal procedures that include specific steps to be taken in the APD review process, including how CMS will document the review (including the name of the reviewer, date of review, and what was reviewed); what documentation should be retained after the review; as well as decision-making criteria for approval or denial decisions for state Medicaid IT funding requests.

HHS Response

HHS concurs with this recommendation but as noted in our response, through our significant organizational and programmatic changes made since 2018 we have already begun addressing these findings.

[1] https://www.medicaid.gov/sites/default/files/Federal-Policy-Guidance/Downloads/cib102419.pdf

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Recommendations 1, 2, 3, and 4 speak to two main points: (1) CMS should have a documented process for reviewing state requests for enhanced funding for information technology and (2) CMS should ensure all documentation to support funding decisions is maintained and accessible.

As GAO noted in their report, states told GAO the reviews of their spending requests were often inconsistent. HHS had already noted consistency issues during the time of the GAO study and in February 2019, implemented a re-organization consolidating all staff reviewing state IT requests into the CMS Data and Systems Group (DSG). Under the re-organization, one MES State Officer was assigned to each state for the entirety of its MES. Under the previous structure during the period of the GAO study, most states had two or three systems analysts, who covered different lines of business. The State Officers are now organized into four geographic teams within one MES Team. As part of the State Officer model, CMS has also implemented the following process improvements, which together will begin to address the first four recommendations in the GAO report:

- Implemented a single, unified SharePoint-based Workflow for all State Requests;
- Established the MES Wiki to provide a common repository for knowledge management, team processes, learning and guidance for state officers;
- Began conducting standardized training for all State Officers on an ongoing basis;
- Implemented Standard Operating Procedures (SOPs) for Advance Planning Document (APD) processing;
- Developed standardized elements for Performance Management Appraisal Program (PMAP) performance plans including elements directly related to the APD reviews the State Officers perform
- Began conducting regularly scheduled meetings with Stakeholder Groups (Center for Medicaid and CHIP Services, HHS/Administration for Children and Families, United States Department of Agriculture/Food and Nutrition Service, States and Vendors) to facilitate communication and gather feedback; and,
- Created templates for APD letters, including:
    - Approval/Denial
    - Multiple Operating Division (Multi-Operating Division) collaboration
    - Request for Additional Information (RAI)
    - Decision on request for reconsideration of denied FFP
    - Project close-out response.

In addition, HHS is in the process of updating regulations governing Medicaid IT projects in states, with the intent to ensure regulatory and sub-regulatory requirements are consistent across all MES projects, and states are held accountable for outcomes. HHS will also update the standards and conditions for enhanced funding to reflect modern software development practices and provide improved capabilities for sharing and re-use across states.

Recommendation 2

GENERAL COMMENTS FROM THE DEPARTMENT OF HEALTH & HUMAN SERVICES ON THE GOVERNMENT ACCOUNTABILITY OFFICE'S DRAFT REPORT ENTITLED – MEDICAID INFORMATION TECHNOLOGY: EFFECTIVE CMS OVERSIGHT AND STATES' SHARING OF CLAIMS PROCESSING AND INFORMATION RETRIEVAL SYSTEMS CAN REDUCE COSTS (GAO-20-179)

The Administrator of CMS should, as part of the APD review process and prior to approval, verify that all of the required information (e.g. alternatives analysis, feasibility study, and cost benefit analysis) is included in the funding request.

HHS Response

HHS concurs with this recommendation but as noted in our response, through our significant organizational and programmatic changes made since 2018 we have already begun addressing these findings.

Recommendations 1, 2, 3, and 4 speak to two main points: (1) CMS should have a documented process for reviewing state requests for enhanced funding for information technology and (2) CMS should ensure all documentation to support funding decisions is maintained and accessible.

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Recommendation 3

The Administrator of CMS should ensure that all APD-related artifacts are retained within the designated CMS document management system, including documentation of key information from meetings and email communications with the states, the MITA self-assessment and independent verification and validation reports, when creating APD decision packages.

HHS Response

HHS concurs with this recommendation but as noted in our response, through our significant organizational and programmatic changes made since 2018 we have already begun addressing these findings.

Recommendations 1, 2, 3, and 4 speak to two main points: (1) CMS should have a documented process for reviewing state requests for enhanced funding for information technology and (2) CMS should ensure all documentation to support funding decisions is maintained and accessible.

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In addition, HHS is in the process of updating regulations governing Medicaid IT projects in states, with the intent to ensure regulatory and sub-regulatory requirements are consistent across all MES projects, and states are held accountable for outcomes. HHS will also update the standards and conditions for enhanced funding to reflect modern software development practices and provide improved capabilities for sharing and re-use across states.

Recommendation 4

The Administrator of CMS should require analysts to maintain relevant MMIS and E&E system artifacts based on the entire system life cycle instead of individual APDs.

HHS Response, Recommendations 1-4

HHS concurs with this recommendation but as noted in our response, through our significant organizational and programmatic changes made since 2018 we have already begun addressing these findings.

Recommendations 1, 2, 3, and 4 speak to two main points: (1) CMS should have a documented process for reviewing state requests for enhanced funding for information technology and (2) CMS should ensure all documentation to support funding decisions is maintained and accessible.

As GAO noted in their report, states told GAO the reviews of their spending requests were often inconsistent. HHS had already noted consistency issues during the time of the GAO study and in February 2019, implemented a re-organization consolidating all staff reviewing state IT requests into the CMS Data and Systems Group (DSG). Under the re-organization, one MES State Officer was assigned to each state for the entirety of its MES. Under the previous structure during the period of the GAO study, most states had two or three systems analysts, who covered different lines of business. The State Officers are now organized into four geographic teams within one MES Team. As part of the State Officer model, CMS has also implemented the following process improvements, which together will begin to address the first four recommendations in the GAO report:

- Implemented a single, unified SharePoint-based Workflow for all State Requests;

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In addition, HHS is in the process of updating regulations governing Medicaid IT projects in states, with the intent to ensure regulatory and sub-regulatory requirements are consistent across all MES projects, and states are held accountable for outcomes. HHS will also update the standards and conditions for enhanced funding to reflect modern software development practices and provide improved capabilities for sharing and re-use across states.

Recommendation 5

The Administrator of CMS should, in consultation with the HHS and CMS CIOs, develop a documented, comprehensive, and risk-based process for how CMS will select IT projects for technical assistance and provide recommendations to assist states aimed at improving the performance of the systems, with consideration to those that are high-cost and performing poorly.

HHS Response

HHS concurs with this recommendation. HHS interprets this as the GAO recommending that CMS establish a process for risk-based review with HHS and CMS CIOs that would result in additional technical assistance for state projects that are experiencing challenges.

To improve HHS' oversight, CMS is developing a standard approach to continuously assess and visualize the health of states' MES projects, which will enable HHS to make more consistent and better-informed decisions about when and where to direct technical assistance and future investment to realize measurable improvement for Medicaid beneficiaries, providers, and administrators.

GENERAL COMMENTS FROM THE DEPARTMENT OF HEALTH & HUMAN SERVICES ON THE GOVERNMENT ACCOUNTABILITY OFFICE'S DRAFT REPORT ENTITLED – MEDICAID INFORMATION TECHNOLOGY: EFFECTIVE CMS OVERSIGHT AND STATES' SHARING OF CLAIMS PROCESSING AND INFORMATION RETRIEVAL SYSTEMS CAN REDUCE COSTS (GAO-20-179)

The planned regulatory updates mentioned above are also intended to strengthen this oversight model. HHS and CMS CIO offices will have the opportunity to comment and contribute to these proposed changes. HHS will also ask the CMS U.S. Digital Services team to review and provided input to the proposals.

Recommendation 6

The Administrator of CMS should encourage state Medicaid program officials to consider involving state CIOs in overseeing Medicaid IT projects.

HHS Response

Recommendation 6 asks HHS to "encourage" states to involve their state CIOs in their IT projects. As part of the approval process, HHS works with states to ensure states have appropriate technology leadership and business sponsorship in place for their significant development efforts. States have varying organizational and project management structures. HHS has been unable to discern evidence from the GAO's review suggesting any particular structure consistently contributes to certain outcomes, but would welcome further information to support the ongoing technical assistance with states.

Recommendation 7

The Administrator of CMS should establish a timeline for implementing the outcome-based certification process for MMIS and E&E systems.

HHS Response

HHS concurs with this recommendation. Please see HHS response as noted in response to recommendation 8.

Recommendation 8

The Administrator of CMS should establish documented procedures for how the results of the outcome-based certification process will be used for conducting oversight and making funding decisions. The procedures should include specific steps that CMCS will take to oversee individual state MMIS and E&E projects and how it will demonstrate that the steps have been taken.

HHS Response, Recommendations 7 and 8

HHS concurs with this recommendation.

Recommendations 7 and 8 speak to HHS' planned outcomes based certification process, with 7 focused on HHS establishing a timeline, and 8 building on recommendations 1-4 about having a documented process and accessible documentation.

GENERAL COMMENTS FROM THE DEPARTMENT OF HEALTH & HUMAN SERVICES ON THE GOVERNMENT ACCOUNTABILITY OFFICE'S DRAFT REPORT ENTITLED – MEDICAID INFORMATION TECHNOLOGY: EFFECTIVE CMS OVERSIGHT AND STATES' SHARING OF CLAIMS PROCESSING AND INFORMATION RETRIEVAL SYSTEMS CAN REDUCE COSTS (GAO-20-179)

HHS' work on standard processes and documentation are noted above. HHS plans to use these same processes and document repositories for the outcomes based certification process. The processes, guidance and templates will be continuously enhanced as HHS move towards outcomes based certification, but the foundations of standard process and supporting documentation are complete.

The timeline for establishing outcomes based certification began in 2018 with pilots for EVV, and culminated in an announcement regarding full implementation of outcomes based certification for EVV systems in October 2019.[2]

Given the promise demonstrated through an outcomes orientation for EVV systems, HHS has continued moving forward with the work. In response to other recommendations, HHS discusses work to standardize processes and implement a team organization emphasizing partnership with states and consistency of decisions. HHS has also thoroughly examined the current oversight processes and streamlined them to emphasize value-added steps and a focus on outcomes, to the extent permitted by the current regulatory framework. HHS expects to release sub-regulatory guidance on streamlined certification and systems testing in 2020.

Recommendation 9

Prior to approving funding for MMIS and E&E systems, the Administrator of CMS should identify areas of duplication or common functionality, such as core MMIS modules, in order to facilitate sharing, leveraging, or reusing Medicaid technologies. CMS should share the results of the review with the state or territory requesting federal funding for a duplicative or similar project and take steps to encourage states to share, leverage, or reuse Medicaid technologies, where possible.

HHS Response

HHS concurs with this recommendation.

Recommendation 9 speaks to identifying areas of common functionality in MES and sharing results of the review with states. As noted by the GAO, HHS has halted reuse efforts not demonstrating positive results. However, in more promising areas, HHS has taken, and plans to take several more, steps to foster an environment of shared learning and potential re-use across states. Areas of common functionality have been identified for years in the Medicaid Information Technology Architecture (MITA), which has been widely shared with states and industry. However, just the identification of common business modules with common functionality across the Medicaid enterprise have not been enough to spur robust re-use.

As GAO found when they interviewed states, HHS can accelerate some state efforts when CMS facilitates information sharing across states and provides mechanisms for ensuring lessons learned are widely disseminated. As part of the MES State Officer model, HHS has initiated

[2] CMS Information Bulletin, "Outcomes-Based Certification for Electronic Visit Verification Systems", https://www.medicaid.gov/sites/default/files/Federal-Policy-Guidance/Downloads/cib102419.pdf

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ongoing Communities of Practice (CoPs) available to all states. These CoPs enable states and HHS to share best practices and showcase opportunities for reuse among states. HHS now regularly holds CoPs on the following topics: Quality Improvement, Advanced Planning Document Support, Auditing, Health Information Exchange, and Outcomes Based Certification. In addition to this ongoing work, HHS plans to continue to expand and focus on the "reuse" condition for enhanced funding as an essential requirement for states that receive enhanced FFP. This includes sharing information among State Officers and the State Officer teams.

As mentioned above, HHS intends to update regulations and is aiming to promote re-use by strengthening the conditions for enhanced funding, including the reuse condition and by promoting additional transparency about the outcomes of projects receiving enhanced funding. By better incentivizing modern software development practices, HHS' goal is to create an enhanced ability for sharing and reuse across states.

Appendix V: GAO Contact and Staff Acknowledgments

GAO Contact

Vijay A. D'Souza, (202) 512-6240 or dsouzav@gao.gov

Staff Acknowledgments

In addition to the contact named above, key contributors to this report were Nicole Jarvis (assistant director), Freda Paintsil (analyst in charge), Melina Asencio, Chris Businsky, Nancy Glover, Robert Letzler, Thomas Murphy, Monica Perez-Nelson, Kelly Rubin, Jerome Sandau, Dwayne Staten, Andrew Stavisky, Sonya Vartivarian, and Jennifer Whitworth.