Department of Health and Human Services

OFFICE OF INSPECTOR GENERAL

STATUS UPDATE: T-MSIS DATA NOT YET AVAILABLE FOR OVERSEEING MEDICAID

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Why OIG Did This Review
In 2016, the Federal Government and States spent $574 billion on Medicaid, serving more than 74 million enrolled individuals. Complete, accurate, and timely Medicaid data are vital for the effective administration and oversight of the Medicaid program by States and the Federal Government. Historically, problems with Medicaid data have hindered program integrity, research, budgeting, and policy. Consequently, the Office of Inspector General (OIG) has designated the improvement of Medicaid data as a top management challenge facing the Department of Health and Human Services. The Transformed Medicaid Statistical Information System (T-MSIS) is a new data system intended to improve the completeness, accuracy, and timeliness of Medicaid data.

This review provides a status update on the implementation of T-MSIS, building on OIG's 2013 review of the T-MSIS pilot.

How OIG Did This Review
We analyzed the implementation status of T-MSIS as of December 2016 using 40 States' approved plans for data submission. In addition, we interviewed staff from the Centers for Medicare & Medicaid Services (CMS) and 16 States about their experiences implementing T-MSIS.

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What OIG Found
States and CMS report that early implementation challenges have resulted in delays with T-MSIS. These delays were caused by technological problems during data testing and by competing priorities for States' IT resources. As a result, the goal for when T-MSIS will contain data from all State Medicaid programs has been repeatedly postponed. Most recently, CMS indicated that it expects that all States will be reporting to T-MSIS by the end of 2017.

Key Takeaway
States and CMS reported challenges to States successfully submitting data to T-MSIS. As a result, the goal for when all States would be reporting data has been repeatedly postponed. States and CMS also reported concerns related to the completeness and reliability of the reported data.

As of December 2016, 21 of 53 State programs were submitting data to T-MSIS. As States and CMS continue to work together to submit data into T-MSIS, they continue to raise concerns about the completeness and reliability of the data; these same concerns were raised in OIG's 2013 review of the T-MSIS pilot. Specifically, States indicate that they are unable to report data for all the T-MSIS data elements. Additionally, even with a revised data dictionary that provides definitions for each data element, States and CMS report concerns about States' varying interpretations of data elements. If States do not have uniform interpretations of data elements, the data they submit for these elements will not be consistent across States, making any analysis of national trends or patterns inherently unreliable.

Conclusion

Successfully getting all States' data into T-MSIS requires States and CMS to prioritize T-MSIS implementation. Because of CMS's history of delaying target dates for implementation, OIG is concerned that CMS and States will delay further rather than assign the resources needed to address the outstanding challenges. Thus, OIG continues to support our 2013 recommendation that CMS establish a deadline for when T-MSIS data will be available for program analysis and other management functions. Without a fixed deadline, some States and CMS may not make the full implementation of T-MSIS a management priority.

The complete report can be found at http://oig.hhs.gov/oei/reports/oei-05-15-00050.asp

T-MSIS Data Not Yet Available for Overseeing Medicaid

BACKGROUND

Medicaid is a joint Federal-State health insurance program for low-income and medically needy individuals. In 2016, the Federal Government and States spent $574 billion on Medicaid, serving more than 74 million enrolled individuals. Complete, accurate, and timely Medicaid data are vital for the effective joint administration and oversight of the Medicaid program by States and the Federal Government. National Medicaid data are necessary for program integrity, assessments of access and quality, budgeting, and policy analyses.[1] Inaccurate and incomplete data on claims and eligibility inhibit detecting fraud and ensuring that dollars spent on Medicaid promote quality and value.

The Office of Inspector General (OIG) and the Government Accountability Office (GAO) have identified problems with missing, inaccurate, and outdated Medicaid data, finding that data were not adequate for the oversight of Medicaid programs nationwide.[2] Because of these problems, OIG has designated the improvement of Medicaid data as a top management challenge facing the Medicaid program and the Department of Health and Human Services.[3]

The Transformed Medicaid Statistical Information System (T-MSIS) replaces the Medicaid Statistical Information System (MSIS) as the national Medicaid dataset. It is a joint effort by the States and the Centers for Medicare & Medicaid Services (CMS) to build a Medicaid dataset that addresses identified problems with Medicaid data in MSIS. This review provides a status update on the implementation of T-MSIS. To perform this review, we collected and analyzed information from CMS and States. Appendix A describes our methodology.

Purpose of T-MSIS

The purpose of T-MSIS is to improve the completeness, accuracy, and timeliness of national Medicaid data. Improved national Medicaid data will allow States, the Federal Government, and other oversight entities to collaborate and more effectively oversee the Medicaid program. CMS intends for T-MSIS to provide States and the Federal Government with a national Medicaid

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[1] Social Security Act (SSA) § 1903(r)(1)(F) as added by the Balanced Budget Act of 1997, P.L. No. 105-33 § 4753(a)(1) and amended by the Patient Protection and Affordable Care Act (ACA), P.L. No. 111-148 § 6504 to include data elements the Secretary determines are necessary for program integrity, oversight, administration.

[2] OIG, *MSIS Data Usefulness for Detecting Fraud, Waste, and Abuse*, OEI-04-07-00240, August 2009; OIG, *Medicaid Managed Care Encounter Data: Collection and Use*, OEI-07-06-00540, May 2009; GAO, *Medicaid Financial Management: Steps Taken to Improve Federal Oversight but Other Actions Needed to Sustain Efforts*, GAO-06-705, June 2006; GAO, *Medicaid Financial Management: Better Oversight of State Claims for Federal Reimbursement Needed*, GAO-02-300, February 2002.

[3] OIG, *Top Management and Performance Challenges Facing HHS,* 2016.

data repository that would, among other functions, support program management, financial management, and program integrity.[4] States will have the opportunity to use T-MSIS data to compare Medicaid program outcomes. Further, CMS intends for T-MSIS to replace the reports that it requires from States, such as reports for the Early Periodic Screening, Diagnosis, and Treatment Program.[5]

To improve Medicaid program oversight, CMS requires States to submit new files and data elements for T-MSIS. Following consultation with a wide array of stakeholders, CMS established over 1,000 data elements for T-MSIS.[6] This expands on the approximately 400 data elements collected in MSIS. T-MSIS builds on the original five MSIS files (eligibility and four types of claims: inpatient, long-term care, pharmacy, and other) by adding files for third-party liability, information from managed-care plans, and providers.

T-MSIS Implementation Timeline

T-MSIS Pilot. CMS piloted T-MSIS with 12 volunteer States starting in 2011. After the pilot ended in 2012, OIG conducted an early implementation review and found that although most of the volunteer States made some progress in implementing T-MSIS, CMS and States would likely face challenges to making T-MSIS function as intended.[7] Early outcomes from the implementation of T-MSIS raised questions about whether T-MSIS data would be complete and accurate upon national implementation of the system. None of the 12 volunteer States could make data available for all T-MSIS data elements. Further, both CMS and the 12 States expressed concerns about the accuracy of the data that States could provide upon implementation. Finally, OIG also found that CMS had not established a deadline for when national T-MSIS data would be available.

National Implementation of T-MSIS. In an August 2013 letter to State Medicaid directors, CMS indicated that it planned to begin implementing T-MSIS with States on a rolling basis.[8] At that time, CMS's goal was for all States to be submitting T-MSIS data on a monthly basis by July 1, 2014.

For a timeline of the history of Medicaid data since mandatory submission of data began in 1997, including the implementation of T-MSIS, see Exhibit 1.

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[4] CMS, *State Medicaid Director Letter*, August 23, 2013 (SMD #13-004). Accessed at http://www.medicaid.gov/Federal-Policy-Guidance/Downloads/SMD-13-004.pdf on December 21, 2016.
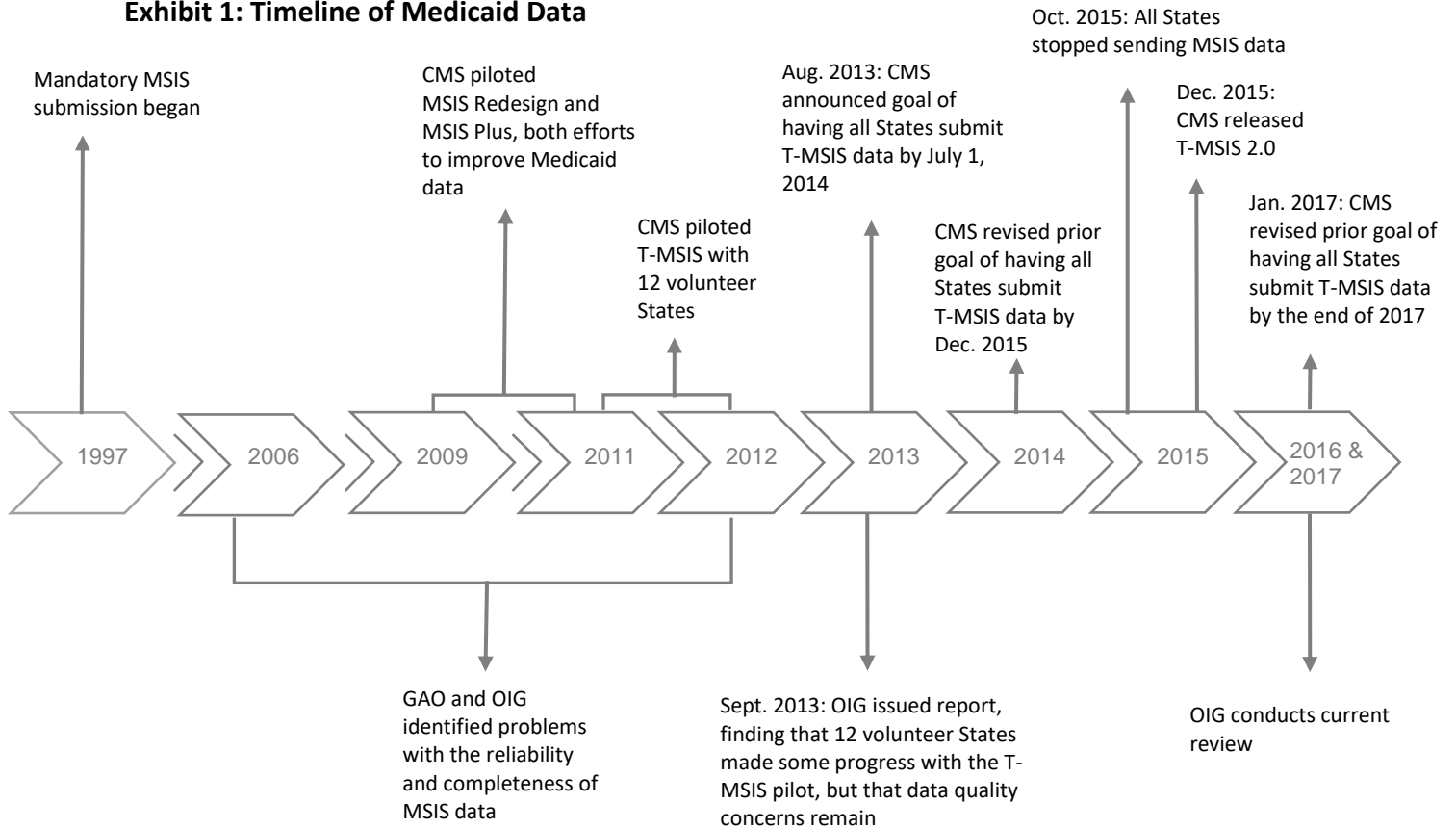
[5] Ibid.

[6] The stakeholders were entities internal and external to CMS. Internal stakeholders included the following: CMS's Center for Program Integrity, Center for Medicare and Medicaid Innovation, Financial Management Group, CHIP, Division of Pharmacy, and Center for Clinical Standards and Quality. External stakeholders included OIG. See OIG, *Early Outcomes Show Limited Progress for the Transformed Medicaid Statistical Information System*, OEI-05-12-00610, September 2013.

[7] Ibid.

[8] CMS, *State Medicaid Director Letter*, August 23, 2013 (SMD #13-004). Accessed at http://www.medicaid.gov/Federal-Policy-Guidance/Downloads/SMD-13-004.pdf on December 21, 2016.

Exhibit 1: Timeline of Medicaid Data

Mandatory MSIS submission began

CMS piloted MSIS Redesign and MSIS Plus, both efforts to improve Medicaid data

Oct. 2015: All States stopped sending MSIS data

Aug. 2013: CMS announced goal of having all States submit T-MSIS data by July 1, 2014

Dec. 2015: CMS released T-MSIS 2.0

CMS piloted T-MSIS with 12 volunteer States

Jan. 2017: CMS revised prior goal of having all States submit T-MSIS data by the end of 2017

CMS revised prior goal of having all States submit T-MSIS data by Dec. 2015

1997 — 2006 — 2009 — 2011 — 2012 — 2013 — 2014 — 2015 — 2016 & 2017

GAO and OIG identified problems with the reliability and completeness of MSIS data

Sept. 2013: OIG issued report, finding that 12 volunteer States made some progress with the T-MSIS pilot, but that data quality concerns remain

OIG conducts current review

Source: OIG summary of CMS documents, relevant laws, and OIG and GAO reports, 2017.

T-MSIS Data Submissions

A State must complete two concurrent and iterative processes before it may begin submitting T-MSIS data to CMS: (1) receive approval of the data submission plan and (2) conduct data testing.

First, to obtain approval of its data submission plan, a State must submit to CMS a plan that both identifies the T-MSIS data elements for which the State can submit data upon implementation and provides a justification for any data elements for which it cannot submit data. Typically, a State cannot submit data for a particular T-MSIS data element because the State does not cover the benefit with which the data element is associated, or because the information for the data element is not available in the State's data systems. CMS reviews and approves the State's data submission plan, and it uses the plan to determine whether the State is submitting the data elements it committed to submitting.

Second, completing data testing involves the transmission of data (to determine whether the State and CMS have the technological capacity to send and receive data) and the validation of data (to determine if the State's data meet specified data requirements).

Once a State receives CMS's approval to submit T-MSIS data and begins making its submissions, CMS requires it to catch up on any missing data submissions. This means that States need to submit T-MSIS data dating back to at least October 2015. States that were not up to date on their MSIS submissions will also need to catch up on any months for which they had not submitted data previously.

RESULTS

States reported early challenges that delayed implementation of T-MSIS

States reported a number of challenges that resulted in delays getting their data into T-MSIS. A number of technological problems in the first 2 years of T-MSIS national implementation hampered the ability of States and CMS to complete data testing. While CMS stated that these technological problems have largely been resolved, States and CMS lost significant time in understanding and dealing with these challenges. States also reported facing competing priorities for their IT resources that hampered their T-MSIS progress.

As a result, CMS's publicly stated goal for when T-MSIS would contain data from all State Medicaid programs has been repeatedly postponed. CMS launched national implementation of T-MSIS in August 2013, with an initial goal of having all States begin submitting data by July 1, 2014. Since that time, CMS has moved the date by which it expected that all States would be submitting T-MSIS data six additional times. (See Appendix B for more details about these delays.) Most recently, CMS indicated that it expects that all States will be reporting to T-MSIS by the end of 2017. Throughout this time, CMS has not established a firm deadline for State submissions.

Both the technological problems, which created an early and significant setback, and competing data-system priorities, which reduced State resources that could be devoted to implementing T-MSIS, help explain how the goal of implementing T-MSIS by 2014 was missed. Neither should continue to present challenges to the States in implementing T-MSIS.

States reported technological problems with T-MSIS that delayed data testing. States and CMS reported that technological problems, primarily associated with T-MSIS's initial design, contributed to the initial delays in the successful transmission of States' data to T-MSIS. Specifically, States' staff cited (1) T-MSIS's inability to accept files with large amounts of data and (2) T-MSIS's generation of defective error reports that CMS sent to States.

Example of challenge that delayed data testing: One State with a large Medicaid population—and thus large amounts of Medicaid data—sent only smaller subsets of data to complete initial data testing. However, final data testing could not be completed for the State until CMS was able to receive the data in their entirety, not as subsets.

States' staff reported that there were delays because the data system that CMS initially deployed to receive State Medicaid data could not receive State submissions with large amounts of data. As a result, States and CMS had to focus resources on troubleshooting transmission problems related to large files and devising temporary solutions.

States' staff also reported that there were delays because of defective error reports generated during data testing. States must go through numerous testing phases that determine whether they and CMS have the technological capacity to send and receive data. CMS processes the States' files through its data validation edits and produces error reports for States, requiring States to address any errors identified. However, States said that the reports identified errors that were mostly the result of T-MSIS system errors in processing data, not problems with the data that States submitted.

Ultimately, CMS responded to these technological problems by making structural changes to T-MSIS. In December 2015, CMS released a new version of T-MSIS: T-MSIS 2.0. With T-MSIS 2.0, CMS increased its data processing capacity enough to allow it to process larger data files. In addition, T-MSIS 2.0 updated the system's data dictionary by consolidating changes to data elements, coding requirements, and data validation rules. CMS staff reported that they shared the updated data dictionary with States and informed States of what to expect through a national webinar in January 2016.

Example of challenge that delayed data testing: During data testing, one State reported receiving notification of more than a million errors as a result of flaws with CMS's data processing.

While the structural changes addressed the technological problems that States were reporting, these changes also caused delays. Staff from a number of States reported that to ensure successful data submissions to T-MSIS 2.0, they had to revise the computer coding needed to identify and transmit State data so that it would map correctly to T-MSIS data elements. These delays also included time for additional testing and data verification. One State estimated that accommodating these changes required an additional 4 to 5 months of work.

States reported competing initiatives that limited their capacity to focus on T-MSIS. State staff reported also facing competing data-system priorities that contributed to delays in their progress because they required State staff and resources that were needed for T-MSIS. At the

same time that the national implementation of T-MSIS began, States began implementing a new mandated set of diagnostic codes known as ICD-10.[9] States' efforts to incorporate the new diagnostic codes may have continued through 2015, as the final compliance date for implementation was in late 2015.[10] In addition, in late 2013 many States began expanding their Medicaid programs. This required States to modify their existing data systems to accommodate new Medicaid beneficiary eligibility categories and increased enrollment numbers. Some States reported that their contractors tasked with working on T-MSIS implementation were busy managing the priority demands related to expansion. While these competing priorities help explain how implementing T-MSIS was initially delayed, they should no longer present challenges to the States.

As of December 2016, 21 States were submitting T-MSIS data

As of December 2016, more than 2 years after the initial target established by CMS, 21 of 53 State programs were submitting T-MSIS data after getting their respective plans for data submission approved and successfully completing data testing.[11] The statuses of the 32 States that were not submitting data at that time were mixed. Nineteen of these States had received CMS approval for their plans outlining the T-MSIS data elements for which they could submit data, but they had yet to successfully complete data testing. The remaining 13 States did not have CMS-approved data submission plans nor had they successfully completed data testing.

See Exhibit 2 for the status of each State's ability to submit T-MSIS data as of December 2016. For a list of the States in each implementation category, see Appendix C.

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[9] 45 CFR part 162.

[10] The Protecting Access to Medicare Act of 2014, P.L. No. 113-93 (April 1, 2014), § 212.

[11] We included all Medicaid programs and Children's Health Insurance Programs (CHIPs) that plan to independently submit T-MSIS data, except territories. This included all 50 States, the District of Columbia, and 2 States' CHIPs (Pennsylvania and Iowa). The remaining States' CHIPs plan to submit data to T-MSIS jointly with their respective States' Medicaid programs (and are therefore included in our scope of work but not counted as separate entities). We refer to the 53 State programs as "States" in the remainder of this report.

Exhibit 2: Less than one-half of the States are submitting T-MSIS data, December 2016
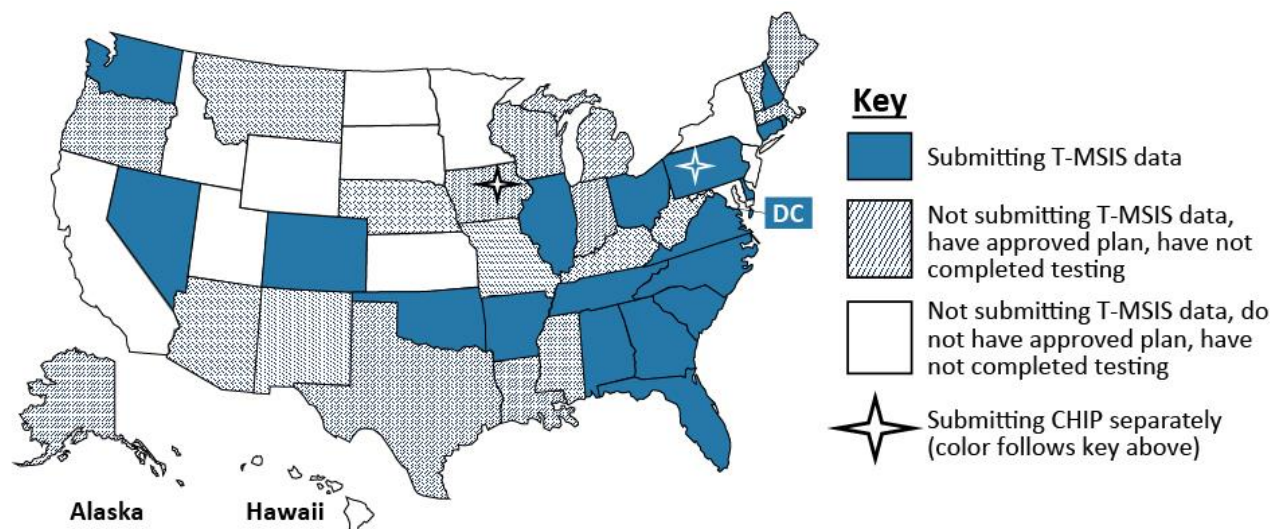
Source: OIG analysis of CMS status update, December 2016.

States and CMS recognize that the next challenge is to ensure the quality of the data

As States and CMS continue to work together to submit Medicaid data into T-MSIS, they are aware that another challenge awaits—ensuring that T-MSIS data are complete and reliable (i.e., have the same meaning across States). OIG raised concerns about the completeness and reliability of T-MSIS data in past work. Specifically, a 2013 OIG report reviewing the T-MSIS pilot raised questions about the completeness of T-MSIS data and whether States would collect and submit T-MSIS data elements based on a uniform understanding of T-MSIS data element definitions.

Concerns remain about the completeness of T-MSIS data. States report being able to provide data for an average of 82 percent of the T-MSIS data elements (1,197 of 1,458). Among the 40 State plans we reviewed, States ranged from one State being able to report 60 percent of the data elements to another State that is able to report 96 percent of the data elements. States' inability to report all data elements means gaps exist in the completeness of national data.

Further, when we compared data elements that all 40 States will be submitting in common, only 26 percent of the data elements (380 of 1,458) will be submitted by all States.[12] Additionally concerning is that only one-fourth of the data elements that all 40 States indicated they could report in common capture data that are useful in managing the Medicaid program.

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[12] See Appendix D for the number of data elements that each State plans to submit.

These data are related to a specific beneficiary or provider (e.g., provider billing number) or the care of the beneficiary (e.g., diagnosis and drug codes). The other three-fourths of the 380 common data elements are designed to describe technical aspects of the data file itself. This includes the file name and the date the file was created. While these data elements are essential to managing T-MSIS as a dataset, they do not contain data that are helpful in overseeing the Medicaid program, such as data on claims or encounters.

Concerns remain about the reliability of T-MSIS data. States and CMS report concerns about data reliability. These concerns are similar to those raised in OIG's 2013 report on the T-MSIS pilot. In that report, States and CMS raised concerns that States' interpretations of given data elements may not be consistent across States.[13] In other words, a State may submit data for a given data element that differ in meaning from the data another State submits for the same data element. If States do not have uniform interpretations of data elements, using T-MSIS data for analysis of national trends or patterns would lead to unreliable results.

Specifically, States raised concerns that, as one State put it, "the data extracted for T-MSIS may not be uniform in all cases." Each State Medicaid agency maintains an individualized data system, which means it must map its State-specific data to T-MSIS data elements. Consequently, for uniform data to exist, States must create "crosswalks" that match the data in their systems to the T-MSIS data dictionary.[14] As one State put it, "the next big challenge" for ensuring quality Medicaid data is to determine whether the mapping processes for each State is resulting in data that are uniform across the States. Some data sources may be State systems outside of States' Medicaid agencies or Children's Health Insurance Program (CHIP) agencies, making the process even more difficult.

Example of T-MSIS reliability concerns: States may have different interpretations of the same data element. For example, CMS's rules for the data element on "Medicaid paid amount" only advise that States report the amount paid by Medicaid on the claim. Some States may interpret this to mean the combined amounts paid by the Federal Government and the State share, some States may interpret it as just the State share, and others may interpret it just as the Federal share. Differences in interpretation and reporting would result in unreliable data for the paid amount.

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[13] In OIG's 2013 report, we used the term "data consistency" to refer to issues with data reliability. See OIG, *Early Outcomes Show Limited Progress for the Transformed Medicaid Statistical Information System*, OEI-05-12-00610, September 2013.

[14] The term "crosswalks" refers to States' processes for (1) identifying data that best meet the T-MSIS data dictionary definition and (2) transferring that data from their unique State data systems to T-MSIS.

In January 2016, CMS shared with States a revised data dictionary that provided definitions for each data element. However, CMS staff acknowledged that even with this updated dictionary, States may vary in their interpretation of data elements.

In January 2017, CMS announced that to determine whether T-MSIS data are reliable, it is convening a Technical Evaluation Panel, composed of Federal and external partners, charged with conducting a quality review of T-MSIS data and documenting variation across States for future users of T-MSIS data.[15] CMS plans to share these quality reviews with users of T-MSIS data to ensure that they are aware of how data vary across States and limitations of the data.

CONCLUSION

A quality national Medicaid dataset is essential to States' and the Federal Government's ability to effectively and collaboratively administer and ensure the integrity of States' Medicaid programs and CHIPs. States, CMS, OIG, and other stakeholders need complete and reliable national Medicaid data to ensure that Medicaid and CHIP funds are used appropriately and effectively and that beneficiaries receive safe and appropriate care. For example, CMS plans to analyze T-MSIS data to identify trends or patterns, including those that may indicate potential fraud, waste, and abuse at a national level.[16] Further, States would be able to use T-MSIS data to compare program outcomes to help them in making important policy decisions as well as to identify instances of fraud, waste, and abuse.[17] All this can only be done if the data are complete and reliable.

However, States and CMS reported challenges to States successfully submitting data to T-MSIS to create a national Medicaid dataset. As a result, the goal for when all States would be reporting data to T-MSIS has been repeatedly postponed. CMS launched the national implementation of T-MSIS in August 2013, with an initial goal for all States to be submitting data by July 2014. Most recently, CMS indicated that it expects that all States will be reporting to T-MSIS by the end of 2017. Based on the status of implementation as of December 2016, it is unclear whether that date can be met.

Successfully getting all States' data into T-MSIS requires States and CMS to prioritize T-MSIS's implementation. Because of CMS's history of delaying implementation target dates, OIG is concerned that CMS and States will continue to delay rather than assign the resources needed to address the outstanding challenges by the deadline. Without a fixed deadline, some States and CMS may not make the full implementation of T-MSIS a management priority. OIG

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[15] CMS, *State Medicaid/CHIP Data Sharing Fact Sheet*, January 17, 2017. Accessed at https://www.medicaid.gov/medicaid/data-and-systems/downloads/collection-systems/tmsis-fact-sheet.pdf on January 27, 2017.

[16] CMS*, State Medicaid Director Letter*, August 23, 2013, (SMD #13-004). Accessed at http://www.medicaid.gov/Federal-Policy-Guidance/Downloads/SMD-13-004.pdf on December 21, 2016.

[17] CMS, *State Medicaid/CHIP Data Sharing Fact Sheet*, January 17, 2017. Accessed at https://www.medicaid.gov/medicaid/data-and-systems/downloads/collection-systems/tmsis-fact-sheet.pdf on January 27, 2017.

continues to support our 2013 recommendation that CMS establish a deadline for when T-MSIS data will be available for program analysis and other management functions.

Getting all of the States to submit data to T-MSIS is not the only challenge. Concerns about the completeness and reliability of the data remain. Data must be complete and reliable to be of use to States, CMS, and other stakeholders.

In 2013, OIG reported that early outcomes from the implementation of T-MSIS raised questions about the completeness and accuracy of T-MSIS data. We found that none of the 12 volunteer States could make data for all T-MSIS data elements available and that CMS and States expressed concerns about the accuracy of the data they could provide upon implementation. Consequently, we recommended that CMS improve the completeness and accuracy of the data. In response, CMS established standards for the completeness, accuracy, and timeliness of T-MSIS data; created a set of data validation rules to govern the submission of T-MSIS data; and created a data oversight strategy and model for providing stakeholders with transparency on findings and data quality issues. Therefore, OIG considered the recommendation to be implemented. Yet disappointingly, despite these efforts, there are still concerns about the completeness and reliability of the data.

Given the enormous potential that a national Medicaid database holds for States, CMS, and other oversight entities to manage the program and stop fraud, waste and abuse, OIG remains committed to monitoring States' and CMS's implementation of T-MSIS until complete, accurate, and timely national Medicaid data are available.

AGENCY COMMENTS AND OFFICE OF INSPECTOR GENERAL RESPONSE

CMS provided formal comments on our draft report in June 2017. CMS reported that since December 2016, more States have successfully started submitting data to T-MSIS. CMS reported that 40 States and Pennsylvania CHIP are submitting T-MSIS data. CMS indicated that these States represent 92 percent of the Medicaid and CHIP population.

While CMS and States have made progress on the number of States submitting data to T-MSIS, CMS agreed with OIG on the need for reliable Medicaid and CHIP data. In its comments, CMS emphasized its ongoing work to improve data quality. CMS indicated that it has two major goals for T-MSIS data quality: 1) transparency for users, and 2) a continuous, ongoing improvement process with States to strengthen the quality of the data over time. To achieve these two goals, CMS indicated that it is undertaking a variety of actions, including information for users on data quality, one-on-one technical assistance to States to ensure their data will be usable, and a post-production data quality review with a subset of States to develop an effective working process for improving data quality.

CMS also highlighted the convening of a Technical Evaluation Panel to obtain initial feedback on data quality and usability. CMS reported that the panel assessed a subset of T-MSIS data to identify anomalies in the data and potential challenges with using the data for analysis. CMS

plans to use the panel's findings to inform efforts to improve data quality across States and for specific States.

OIG welcomes CMS's ongoing efforts and looks forward to when all States are reporting data that are complete, reliable, and timely. OIG also looks forward to using this data to promote improved efficiency and effectiveness in the Medicaid program as well as protect the program and its patients from harm and potential fraud.

For the full text of CMS's response, see Appendix E.

Appendix A: Methodology

This review determined the status of T-MSIS implementation as of December 2016.

Scope

This inspection was national in scope, including all 50 States and the District of Columbia. As of December 2016, two States—Iowa and Pennsylvania—were planning to submit their monthly Medicaid and CHIP data to CMS as two separate data submissions.[18] For these States, we reviewed the State's ability to submit Medicaid and CHIP data separately. The remaining States are planning to submit Medicaid and CHIP data as one data submission. Overall, we reviewed the implementation status of 53 State data submissions.

Data Sources and Collection

Data Request to CMS. We requested documents and data from CMS, including:

- CMS status updates: Updates from CMS about States' progress on data submission plans, data testing, and data submission. We received status updates between September 2015 and December 2016.

- T-MSIS data dictionary: Document containing the names, definitions, and format for the 1,458 data elements in T-MSIS. We received the T-MSIS data dictionary version 2.0 (dated November 2015) in February 2016.

- States' approved data submission plans: Plans, approved by CMS, consisting of the T-MSIS data elements for which States planned to submit data when they began submitting T-MSIS data.[19] We received 40 approved plans between September 2015 and December 2016.

- States' justifications for T-MSIS data elements for which they cannot submit data: As part of States' approved data submission plans, they must submit a list of the elements for which they cannot always submit data and their justifications for not doing so. Some, but not all, States provided detailed justifications and plans of action and goals for when they can submit data for such data elements. We received these documents in October 2015.

Structured Interviews with CMS. We conducted structured interviews with CMS staff responsible for T-MSIS implementation and staff who will use the data. Specifically, we interviewed CMS staff from the Data and Systems Group, Office of Enterprise Information, Office of Communications, Office of Technological Solutions, Center for Program Integrity, Center for Medicare and Medicaid Innovation, Office of the Actuary, and Office of Enterprise Data and Analytics. We asked questions about the progress and status of the national implementation of T-MSIS, including any challenges or reasons for delay. As part of these

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[18] States can design their CHIP program in one of three ways: (1) via Medicaid expansion, (2) as a separate CHIP, or (3) as a combination of the two approaches. A State's design for its CHIP program can influence whether it submits its Medicaid and CHIP data separately or together. Accessed at https://www.medicaid.gov/chip/state-program-information/chip-state-program-information.html on March 27, 2017.

[19] Over time, States may be able to begin submitting T-MSIS data elements that they are unable to submit initially.

interviews, we asked them about any concerns they had about T-MSIS data, including their ability to receive and use it. We conducted these interviews from December 2015 to February 2016.

<u>Structured Interviews with Selected States</u>. We selected 16 States to interview from 3 different groups representing different phases of T-MSIS implementation. To do this, we first divided States into three groups according to their respective statuses for T-MSIS implementation as of October 2015: (1) States that were submitting T-MSIS data, (2) States that had approved data submission plans, and (3) States without approved data submission plans. At the time we selected States, only two States were in group one and we selected both of them. We selected eight States from group two and six States from group three. We selected Arizona, Arkansas, California, Georgia, Florida, Illinois, Massachusetts, Michigan, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Texas, Virginia, and Washington.[20] We did not select these groups to compare progress and challenges by group. Instead, we selected these groups to ensure representation from different phases of T-MSIS implementation.

We considered a number of additional factors when selecting States, including Medicaid population, Medicaid expenditures, care delivery model (managed care or fee-for-service), and Medicaid expansion status. Our approach to selecting States did not allow us to project the results.

In general, the interviews focused on the steps that States took to implement T-MSIS and the challenges they faced. For the first two groups, we asked States how they overcame challenges they faced. For the third group, we asked what they needed to solve any challenges. In addition, we asked States about their perspectives on any future challenges or concerns about T-MSIS as a whole. We conducted these interviews in November and December 2015. We conducted additional followup with some States in February 2016.

Data Analysis

<u>Determining Completeness of T-MSIS Data</u>. For each State, we determined the number of T-MSIS data elements for which the State planned to submit data. We compared the data elements listed in each State's data submission plan to the list of all T-MSIS data elements. We also determined the number of data elements for which all 40 States planned to submit data.

<u>Determining CMS and State Challenges with T-MSIS Implementation</u>. We reviewed CMS's and States' interview responses to determine the challenges that CMS and States faced with T-MSIS implementation. We identified similar implementation challenges cited by both CMS and States. We also identified challenges that CMS and States raised as concerns for the future.

Limitations

The CMS-approved data submission plans that we analyzed represent an agreement with CMS as to the data States will submit and were based on the best available information about the T-MSIS data that States will eventually submit. However, because T-MSIS data were not available for our review, we could not determine whether the national T-MSIS dataset will

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[20] The 16 States represented 68 percent of fiscal year 2014 Medicaid expenditures and 70 percent of Medicaid enrollment as of July 2015.

contain all of the data States indicated would be submitted to T-MSIS in their approved data submission plans.

Standards

This study was conducted in accordance with the *Quality Standards for Inspection and Evaluation* issued by the Council of the Inspectors General on Integrity and Efficiency.

Appendix B: Delays in T-MSIS Implementation Goals

1. All States will submit T-MSIS data by January 1, 2014.

   - Presented by CMS staff in August 2012 at the Medicaid Enterprise Systems Conference

2. All States will submit T-MSIS data by July 1, 2014.

   - August 2013 letter to State Medicaid Directors[21]

3. All States will submit T-MSIS data in 2015.

   - *Department of Health & Human Services Agency Financial Report: Fiscal Year 2014*, issued in November 2014[22]

4. All remaining States will submit data in the T-MSIS file format in fiscal year 2016.

   - *Department of Health & Human Services Agency Financial Report: Fiscal Year 2015*, issued in November 2015[23]

5. Most, if not all States and territories, will transition from MSIS to T-MSIS throughout 2016. T-MSIS data will be made public to States and stakeholders via different data products toward the end of 2016.

   - CMS website, accessed in July 2016[24]

6. All States will submit T-MSIS data by late summer 2017.

   - CMS communication in response to official OIG questions, December 22, 2016

7. Most, if not all States and territories, will transition from MSIS to T-MSIS throughout 2017. T-MSIS data will be made public to States and stakeholders via different data products in 2017.

   - CMS website, accessed in January 2017[25]

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[21] CMS, *State Medicaid Director Letter*, August 23, 2013 (SMD #13-004). Accessed at http://www.medicaid.gov/Federal-Policy-Guidance/Downloads/SMD-13-004.pdf on December 21, 2016.

[22] Department of Health and Human Services, *HHS Agency Financial Report: FY 2014*, November 2014. Accessed at http://www.hhs.gov/sites/default/files/afr/fy2014-agency-financial-report-final.pdf on September 13, 2016.

[23] Department of Health and Human Services, *Fiscal Year 2015: Agency Financial Report*, November 2015. Accessed at https://www.hhs.gov/sites/default/files/afr/fy-2015-hhs-agency-financial-report.pdf on September 13, 2016.

[24] CMS, *Medicaid and CHIP Data Collection Systems*. Accessed at https://www.medicaid.gov/medicaid/data-and-systems/collection-systems/index.html on December 21, 2016.

[25] CMS, *Medicaid and CHIP Data Collection Systems*. Accessed at https://www.medicaid.gov/medicaid/data-and-systems/collection-systems/index.html on January 10, 2017.

Appendix C: Status of States' Ability To Submit T-MSIS Data as of December 2016

States that had begun submitting data, i.e., they had approved data submission plans and finished data testing:

1. Alabama
2. Arkansas
3. Colorado
4. Connecticut
5. Delaware
6. District of Columbia
7. Florida
8. Georgia
9. Illinois
10. Nevada
11. New Hampshire
12. North Carolina
13. Ohio
14. Oklahoma
15. Pennsylvania
16. Pennsylvania CHIP
17. Rhode Island
18. South Carolina
19. Tennessee
20. Virginia
21. Washington

States that were not submitting data and had approved data submission plans but had not completed data testing:

1. Alaska
2. Arizona
3. Indiana
4. Iowa
5. Kentucky
6. Louisiana
7. Maine
8. Massachusetts
9. Michigan
10. Mississippi
11. Missouri
12. Montana
13. Nebraska
14. New Mexico
15. Oregon
16. Texas
17. Vermont
18. West Virginia
19. Wisconsin

States that were not submitting data, did not have approved data submission plans, and had not completed data testing:

1. California
2. Hawaii
3. Idaho
4. Iowa CHIP
5. Kansas
6. Maryland
7. Minnesota
8. New Jersey
9. New York
10. North Dakota
11. South Dakota
12. Utah
13. Wyoming

Appendix D: Number of T-MSIS Data Elements That Each of the 40 States Planned To Submit

State	Number of T-MSIS data elements
New Hampshire	1,403
Michigan	1,398
West Virginia	1,374
North Carolina	1,365
Tennessee	1,338
Mississippi	1,301
Alaska	1,292
Oklahoma	1,274
Iowa	1,268
New Mexico	1,264
Arkansas	1,263
Connecticut	1,262
Massachusetts	1,256
Oregon	1,256
Delaware	1,246
Pennsylvania	1,246
Kentucky	1,243
Georgia	1,241
Ohio	1,226
Virginia	1,220
Nevada	1,219
Arizona	1,218
Florida	1,217
Louisiana	1,211
Wisconsin	1,201
Alabama	1,195
District of Columbia	1,190
Illinois	1,176
Indiana	1,161
Maine	1,159

Continued

State	Number of T-MSIS data elements
Colorado	1,148
Missouri	1,120
Rhode Island	1,119
Pennsylvania CHIP	1,055
Washington	1,044
South Carolina	1,031
Nebraska	1,004
Montana	892
Vermont	883
Texas	882

Source: OIG analysis of 40 States' T-MSIS data submission plans, 2016.

APPENDIX E: Agency Comments

DEPARTMENT OF HEALTH & HUMAN SERVICES

Centers for Medicare & Medicaid Services

200 Independence Avenue SW
Washington, DC 20201

DATE: JUN 1 2 2017

TO: Daniel R. Levinson
Inspector General
Office of the Inspector General

FROM: Seema Verma
Administrator
Centers for Medicare & Medicaid Services

SUBJECT: Office of Inspector General (OIG) Draft Report: CMS Does Not Have Data
Needed to Effectively Oversee Medicaid (OEI-05-15-00050)

The Centers for Medicare & Medicaid Services (CMS) appreciates the opportunity to
review and comment on the Office of Inspector General's (OIG) draft report on Medicaid
data. CMS takes seriously its responsibility to collect and analyze Medicaid and Children's
Health Insurance Program (CHIP) data to enhance program management and oversight.

Improving Medicaid and CHIP data and systems is a high priority for CMS. Through
strong data and systems, CMS and states can drive toward better health outcomes and
improve program integrity, performance, and financial management in Medicaid and CHIP.
CMS has been working with states to implement changes to the way in which
administrative data is collected by moving from the Medicaid Statistical Information
System (MSIS) to the Transformed-MSIS (T-MSIS). As part of the transition to T-MSIS,
CMS has strengthened its reporting requirements by standardizing definitions, expanding
the data being collected, adding data quality enhancements, and improving the timeliness
of data submission by moving from quarterly to monthly state data submissions.

Specifically, CMS has expanded the data states are required to submit, including new files
on managed care plans, providers, and third party liability, and is providing states with
guidance on the definitions and specifications of these new requirements. Additionally, T-
MSIS includes new front-end edits and back-end data quality checks, allowing states to see
the results of the front-end edits and resolve these errors in a timely way, representing a
major enhancement over MSIS.

CMS is working to transition all states to T-MSIS and has made significant progress. As of June
6, 2017, 40 states and the Pennsylvania CHIP are submitting T-MSIS data. These 41 entities

represent 92 percent of the Medicaid and CHIP population. CMS continues to work with the remaining states to help them submit data.

CMS agrees with the need for consistent, reliable Medicaid and CHIP data. While recognizing the complexity of this undertaking, CMS has prioritized data quality work. CMS has two major goals for T-MSIS data quality: 1) transparency for users, and 2) a continuous, ongoing improvement process with states to strengthen the quality of the data over time. For transparency purposes, the agency is preparing data quality resources for data users. CMS has implemented a variety of methods on pre-production and post-production data quality improvement for work with states. CMS is providing one-on-one technical assistance to states to not only ensure states are submitting timely data, but to also ensure the data will be usable by CMS and researchers once submitted. The post-production data quality review is being tested with a subset of states to develop an effective working process to help inform CMS and states of ongoing data quality efforts.

Furthermore, CMS convened a Technical Evaluation Panel (TEP) to obtain initial feedback on T-MSIS data quality and usability. The TEP conducted an assessment of a subset of the T-MSIS data to identify patterns and anomalies in the data as well as the feasibility of use for some areas of analysis. CMS will use the TEP findings to further direct data quality work with states in cross-cutting and state-specific areas, as well as inform the process for future data dissemination.

Having access to more robust, timely, and accurate data via T-MSIS will strengthen program monitoring, policy implementation, and oversight of Medicaid and CHIP programs. It will also enhance CMS' and states' ability to identify potential fraud, waste, and abuse and improve program efficiency. CMS and states will have greater insight into how to improve these programs from a national perspective using a consistent data set. T-MSIS will also reduce administrative burden on states by streamlining the reporting process and reducing the number of reports and data requests CMS requires.

CMS thanks OIG for their efforts on this issue and looks forward to working with OIG on this and other issues in the future.

ACKNOWLEDGMENTS