Review of Managed Care Organizations' Cost Avoidance and Waste Prevention Activities

As directed by
Rider 151, Article II, 85th Texas Legislature

Texas Health and Human Services
Office of Inspector General

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Executive Summary

The Review of Managed Care Organizations' Cost Avoidance and Waste Prevention Activities Report is submitted in compliance with the 2018-2019 General Appropriations Act, Senate Bill 1, 85th Legislature, Regular Session, 2017 (Article II, Health and Human Services Commission, Rider 151.) Rider 151 requires the Office of Inspector General to:

1. Conduct a review of cost avoidance and waste prevention activities employed by managed care organizations (MCOs) throughout the state;
2. Consider the effectiveness of cost avoidance strategies employed by the MCOs to prevent waste and the adequacy of current cost avoidance functions; and
3. Submit a report to the Legislative Budget Board and the Governor by March 1, 2018, detailing its findings and recommendations for performance measures related to cost avoidance and waste prevention activities employed by MCOs.

After conducting extensive research on this topic, including distributing a 26-question survey to 22 Texas Medicaid and Children's Health Insurance Program (CHIP) MCOs and dental maintenance organizations (DMOs), follow-up interviews with several MCOs, and conducting a comprehensive review of the literature in this area, the OIG found that:

- Prepayment activities was selected by 18 MCOs as one of the most effective cost avoidance and waste prevention strategies, which includes Fraud, Waste and Abuse (FWA) activities such as front-end claim edits and prior authorization programs.
- Post payment reviews were identified by 17 MCOs as one of the most effective methods to reduce costs through cost avoidance and waste prevention, especially data mining.
- Most MCOs also performed audits and internal monitoring to address cost avoidance and waste prevention.
- While most MCOs do not consider reducing Potentially Preventable Events (PPEs) to be a program integrity activity, 16 MCOs reported that they most frequently used client case management as a strategy to help reduce PPEs.

The OIG also found that definitions of cost avoidance activities and methodologies for calculating cost avoidance activities varied significantly:

- Texas MCOs currently do not use a uniform definition of cost avoidance or a standard methodology to measure the effectiveness of their cost avoidance activities.
- Federal government and other states' reporting on FWA cost avoidance and the healthcare industry research indicated that there was no standardized definition, methodology or industry standard for calculating FWA cost avoidance in Medicaid and CHIP.

Despite the variation in how Medicare and other states calculate their cost avoidance performance measures, Medicare and other states report their cost avoidance by identifying the dollar value of costs avoided. Sixteen MCOs also reported using (or recommended using) the dollar value of costs avoided as a cost avoidance performance measure.[1]

Given these findings and observations, the OIG recommends the following:

Recommendation 1: Require Medicaid and CHIP managed care organizations and dental maintenance organizations to report performance measures based on the dollar value of costs avoided and the value of costs avoided as a percent of total paid claims.

Recommendation 2: Require Medicaid and CHIP managed care organizations and dental maintenance organizations to use standard methodologies to calculate and evaluate their cost avoidance related to fraud, waste, and abuse prevention activities.

Recommendation 3: Establish a workgroup with stakeholders to develop standardized methodologies for performance measure reporting to the state by Medicaid and CHIP managed care organizations and dental maintenance organizations.

Once a standard definition and methodology for calculating the dollar value of MCO FWA cost avoidance is finalized, a baseline of current MCO and DMO cost avoidance activities can be established. Then, the state can assess the adequacy and effectiveness of MCO and DMO cost avoidance and waste prevention activities.

Introduction

In the 2018-2019 General Appropriations Act, 85th Legislature, Regular Session, 2017, General Revenue funding for Texas Medicaid accounts for $25.8 billion, or 23 percent, of the state's General Revenue funds ($62.4 billion or 29 percent of All Funds.)[2] In state fiscal year 2017, more than 4 million Texans receive healthcare through the Medicaid program; the majority (92 percent) are enrolled through managed care organizations (MCOs) instead of fee-for service (FFS) Medicaid.[3] The Texas Children's Health Insurance Program (CHIP) accounts for $2.0 billion (All Funds) of the 2018–2019 biennium budget.[4] In state fiscal year 2017, the state had 425,000 children enrolled through MCOs to receive CHIP.[5]

In traditional FFS Medicaid, the state is the claims administrator and program integrity activities are centralized. Healthcare providers and beneficiaries enroll with the state Medicaid program and, as the claim administrator, pays healthcare providers for the services delivered. From a program integrity perspective, this means the state, through the Texas Medicaid and Healthcare Partnership and the Office of Inspector General (OIG), monitors payments to providers through prepayment reviews and by conducting audits, inspections, investigations, and reviews. Additionally, in FFS Medicaid, the state establishes the policies for covered healthcare services and paying claims. Therefore, they are applied consistently across the state as stated in the Texas Medicaid Provider Procedures Manual (TMPPM).[6]

Section 1115 of the Social Security Act allows the federal government to waive provisions of major health and welfare programs authorized under the Act, including certain Medicaid requirements. This waiver allows states to use federal Medicaid funds in innovative ways that are not otherwise allowed under federal rules. Texas and other states have used the 1115 waiver to establish a managed care model to provide Medicaid benefits.

As the single state Medicaid agency, the Health and Human Services Commission (HHSC) contracts with MCOs and dental maintenance organizations (DMOs) to deliver medical and dental services to recipients enrolled in Medicaid and CHIP. (Except where otherwise specified, MCOs refers to both MCOs and DMOs.) The managed care contracts require MCOs at a minimum, to deliver Medicaid benefits in the same amount, duration, and scope as outlined in the TMPPM. However, Medicaid MCOs have the flexibility to implement their own operational policies to administer Medicaid benefits, including using different criteria to pay claims. For example, MCOs can require prior authorizations or referrals for certain benefits. Consequently, each MCO may have a different process for providers to be reimbursed for services. Program integrity efforts require additional time and resources with a managed care model because of the need to examine multiple and diverse processes for each MCO.

The Texas Administrative Code (TAC), Title 1, Sections 353.501 through 353.505 identifies requirements for Medicaid and CHIP MCOs to prevent and detect possible acts of fraud, waste, and abuse (FWA). MCOs are required to establish internal special investigative units tasked with preventing and detecting FWA and submit a FWA compliance plan annually to the OIG. This plan details specific policies and procedures about how the MCO will prevent and detect FWA, as well as adhere to federal Medicaid and CHIP program requirements.[7] In state fiscal year 2017, the 22 Texas Medicaid and CHIP MCOs recovered and retained $5.7 million collectively in improper payments.[8] This is an increase over the $2.5 million that was recovered collectively by MCOs in state fiscal year 2015. There is currently no requirement for the MCOs either through TAC or the MCO contract to report cost avoidance savings.

Texas Medicaid and CHIP Program Integrity in Managed Care

According to the Medicaid and CHIP Payment and Access Commission, program integrity activities are meant to "ensure that federal and state taxpayer dollars are spent appropriately on delivering quality, necessary care and preventing fraud, waste, and abuse from taking place."[9] In Medicaid and CHIP, program integrity efforts can occur before (prepayment) or after a healthcare provider is paid (post-payment).[10] Post-payment program integrity efforts remain a fundamental aspect of any program integrity initiative as an essential check on providers even though these "pay and chase" methods are time consuming and labor intensive.[11] Because the provider has already been paid, post-payment activities require the program integrity team to use resources to recover taxpayer dollars. Alternatively, prepayment program activities prevent fraudulent, wasteful, and abusive billings from ever being paid. Because of this, a comprehensive approach to program integrity efforts uses analytics for both

prepayment and post-payment activities.[12]

In Medicaid and CHIP, cost avoidance refers to a deliberate intervention that reduces or eliminates a cost that would have otherwise occurred if not for that use of that intervention.[13] Waste prevention activities refer to actions taken to stop practices that would allow inefficient use of resources, items or services.[14] However, the definition of what exactly constitutes a cost avoidance activity can vary significantly from state to state and from MCO to MCO. Most cost avoidance or waste prevention activities are categorized in two broad areas: prepayment and post payment review and activities. Prepayment review strategies are program integrity activities that are focused on preventing improper payments from being made to providers. Prepayment program integrity strategies can include preventing fraudulent providers from participating in the Medicaid program, using claim edits in an automated claims processing system to deny or flag claims for additional review, reviews of medical records to support claims, and other strategies that occur before payment to a provider is made. Post payment reviews are program integrity activities that are referred to as "pay and chase" strategies, as they occur after providers have already been paid for their claims. Post payment review strategies include activities such as data mining for potentially improper payments, conducting provider audits, duplicate payment reviews, and surveillance and utilizations reviews.[15]

Reviews defined

Prepayment review strategies are program integrity activities that are focused on preventing improper payments from being made to providers.

Post payment review strategies are program integrity activities that are referred to as "pay and chase" strategies, as they occur after providers have already been paid for their claims.

Not all prepayment reviews are focused on preventing FWA; some are part of the MCOs normal business practices. For example, if an MCO has a claims payment system edit that prevents the MCO from paying for services for persons not enrolled, this may not be considered a FWA cost avoidance activity because organizations typically have controls in place to avoid this activity. Alternatively, if a system edit is specifically targeted to prevent paying for a particular type of fraudulent or wasteful healthcare claim, then this may be considered a cost avoidance activity specifically meant to prevent FWA.

The OIG distributed a 26-question survey to the 22 Texas Medicaid and CHIP MCOs to learn more about their cost avoidance activities as specified in the rider (see Appendix A for the full report methodology and Appendix B for a copy of the survey). The OIG also conducted follow-up discussions with MCOs to obtain a better understanding of the cost avoidance and waste prevention activities used by Texas MCOs. The information provided in the report from MCOs is self-reported data and was not independently validated or audited by OIG staff.

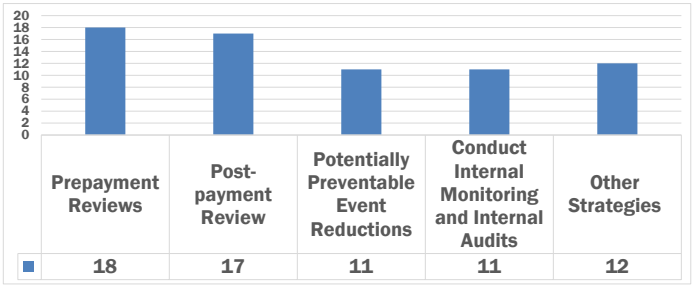
Findings of this report are applicable for all Medicaid and CHIP MCOs except where otherwise specified. According to survey results, every MCO that participates in both Medicaid and CHIP indicated there was no difference in the cost avoidance and waste prevention activities used for each program. Additionally, analyzing survey results by MCO and Medicaid lines of business (e.g. STAR, STAR Kids, etc.) showed no noticeable variation about the types of cost avoidance strategies being used.

Section 1: Prepayment Cost Avoidance and Waste Prevention Activities

Prepayment cost avoidance and waste prevention activities can be more effective than post-payment, "pay and chase" recoupment efforts since recovering claims that have been paid requires more investment in time and resources. Preventing the improper payment from occurring allows funds to be retained instead of recouping or settling for partial amounts.[16]

Figure 1 shows 18 MCOs identifying prepayment reviews as one of the most effective strategies and 17 MCOs identifying post-payment review as one of the most effective strategies of cost avoidance and waste prevention.[17]

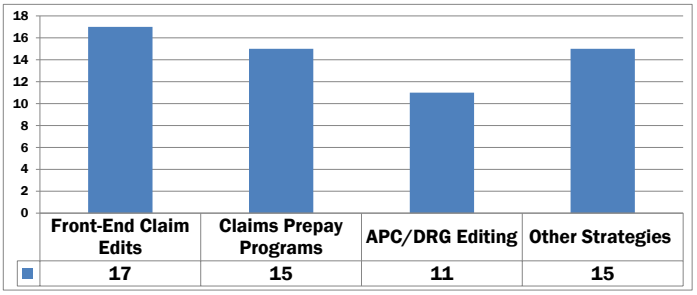
Figure 1. Texas MCOs identify the strategies that have been most effective in reducing costs through cost avoidance and waste prevention



Source: OIG Cost Avoidance and Waste Prevention Survey, December 2017

The most commonly used prepayment cost avoidance and waste prevention strategy identified by MCOs in this survey was the use of front-end claim edits as shown in Figure 2.[18]

Figure 2. Prepayment Strategies: Texas MCO methods and strategies used to identify possible overpayments related to fraud, waste, and abuse.



Source: OIG Cost Avoidance and Waste Prevention Survey, December 2017

Seventeen MCOs identified using front-end claim edits to prevent FWA overpayments.[19] When a healthcare provider administers healthcare services to Medicaid and CHIP managed care recipients, the healthcare provider (or billing provider) bills the MCO by submitting a claim. MCOs receive the claims and process or adjudicate them to pay the provider for covered services according to the rates agreed upon in their provider contracts. Front-end claim edits identify and deny claims that contain billing errors before the claims are accepted into the claims system.[20] An edit could also require a manual review to be done before paying the claim.

Fifteen MCOs reported using claim prepay programs or programs that review claims after they have been accepted into the claims system, but before payments have been processed.[21] These activities can include concurrent care reviews, and medical reviews. Requiring pre-authorization is another example of a prepay review.[22] Eleven of the MCOs reported using Ambulatory Payment Classifications (APC) or Diagnosis Related Groups (DRG) edits that are specific types of edits to prevent paying for outpatient hospital claims with improper APC codes or hospital clinic/emergency department claims with invalid DRG codes.[23]

Self-Reported Success Stories about Prepayment Strategies

Fifteen MCOs indicated that they used other prepayment, cost avoidance strategies.[24] For example, two MCOs use a distinct, prepay team housed within their special investigative unit (SIU).[25] These teams are in addition to the traditional prepayment review team working in the claims department. Furthermore, these MCOs reported that these teams strengthened their prepayment review by focusing not just on Medicaid and CHIP, but also on their organizations' other lines of business that include commercial and Medicare plans.

One MCO reported using prepayment reviews for inpatient claims of more than $100,000. This MCO contracts with another entity to detect billing errors and potential unbundling, the billing for multiple claim codes for a group of procedures that should be covered in a single global billing code on inpatient itemized bills.[26] Providers have an opportunity to appeal if they disagree with the adjusted payments.[27] Another MCO reported that by using two differently focused sets of algorithm rules against code submissions, they were able to increase

overpayment error identification.[28]

Eighteen MCOs reported educating healthcare providers through awareness initiatives to prevent improper billings. An activity to reduce improper claims is to provide education about billing procedures to providers before the FWA occurs and before a corrective action plan is in place. MCOs can limit the filing of incomplete or improper claims by a provider. The DMOs reported having prior authorization programs in place to review for clinical and dental necessity before the healthcare service is provided.[29] Two other health plans reported that they consider additional screening and credentialing requirements before allowing providers into their networks to be a key prepayment cost avoidance activity. Some examples of additional credentialing requirements performed by MCOs include unannounced site visits prior and an enhanced re-credentialing process inside high-risk geographies.[30]

Federal and Other States' Prepayment Activities

The Centers for Medicare and Medicaid Services (CMS) requires states participating in Medicaid and CHIP to collect detailed information about potential providers and to ensure they are eligible to participate in the program. By preventing unqualified and fraudulent providers from participating in Medicaid, states are able to decrease the likelihood of patient harm to beneficiaries and avoid the potential loss of federal and state funds. Under CMS rules, states are required to check certain databases monthly, including the United States (US) Health and Human Services Office of Inspector General List of Excluded Individuals/Entities and the General Services Administration's Excluded Parties List System for excluded providers.[31] Additionally, CMS requires states to check the Social Security Administration's Death Master File to ensure Medicaid and CHIP does not pay for treatment after death.

Tennessee uses a process to validate managed care encounter data. First, healthcare encounter data is processed through a software program that assesses the submitted data quality. It rejects and sends "bad" or incomplete encounter data back to the MCOs for resubmission. Next, encounter data is processed through the fee-for-service claims engine. Lastly, the state has a contractual withhold amount every month that requires a certain percentage of clean claims. These actions resulted in a less than one percent error rate for MCO encounter data in Tennessee's Medicaid Management Information System.[32]

Section 2: Post-Payment and Internal Monitoring / Audit Activities

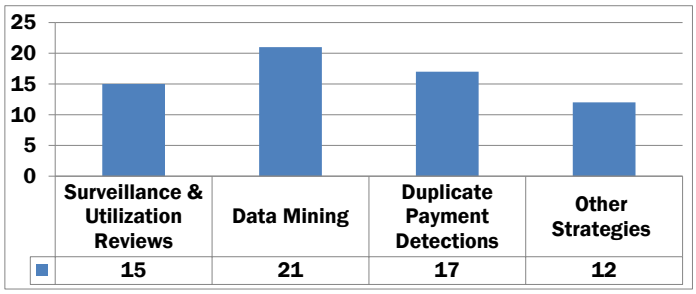
Medicaid program integrity research identifies that prepayment cost avoidance activities can be cost-effective, while the most effective, comprehensive approach to preventing FWA is to use both prepayment and post-payment activities.[33]

The Government Accountability Office (GAO) reports post-payment review efforts may be a more comprehensive strategy because supporting documentation (e.g. medical records) is used to confirm claim information. This differs from prepayment reviews where claim information (medical codes) is often verified to prevent common billing errors, but often not audited with detail.[34] While algorithms used for claim edits and prepayment reviews can prevent certain improper payments from being made, post-payment reviews can be more comprehensive because of the assessment of medical records and further documentation supporting claims.[35] This effort may lead to the discovery of FWA that successfully avoided detection from prepayment activities because prepayment activities do not verify the service was provided or if the diagnosis was accurate.

When asked to identify the strategies that have been most effective in reducing costs through cost avoidance and waste prevention, 17 MCOs identified post-payment reviews as one of the most effective strategies while 11 MCOs identified audits and internal monitoring.[36]

According to MCOs, data mining is the most frequently used post-payment, cost avoidance, and waste prevention strategy to identify FWA, as shown in Figure 3. Data mining is a broad and inclusive term that includes collecting data, and then analyzing and identifying trends and patterns in the data.[37] Common examples of data mining techniques include: associations, clustering, sequential patterns, and decision trees. One MCO reported that it generates high-risk provider reports to observe high-risk healthcare providers and identify outliers with potentially improper billings.[38]

Figure 3. Post-payment Strategies: Methods and strategies used by Texas MCOs to identify possible overpayments related to fraud, waste, and abuse.



Source: OIG Cost Avoidance and Waste Prevention Survey, December 2017

Twenty-one MCOs identified that they use data mining as a post-payment review strategy.[39] Data mining and predictive modeling allows computer programs to identify and flag claims that are potentially fraudulent using statistics and detection theory. Predictive modeling is the process of using detection theory to create, test and validate a model to predict the probability of a possible outcome, which can be used to identify potentially improper billings.[40] Two MCOs reported predictive modeling techniques for cost avoidance.[41] One MCO identified DRG coding reviews and hiring an in-house inpatient and outpatient coder to review paid claims that have DRG codes as effective strategies.[42]

Duplicate payment detection was the second most frequently cited post-payment strategy, used by 17 MCOs.[43] This data-driven strategy determines if repetitive claims have been processed and paid. Wasteful overbillings may also be detected. Surveillance and utilization reviews (SUR) are the third most frequently cited post-payment strategy.[44] SURs evaluate whether services provided to Medicaid enrollees are appropriate when compared to treatment guidelines. Additionally, SURs identify underutilization, or not enough care, was provided to enrollees.

Eighteen MCOs reported performing audits and internal monitoring strategies. Once improper recoveries have been collected as a result of audits and post-payment reviews, program integrity efforts do not end.[45] Nine MCOs provided success stories that indicated post-payment reviews and/or audits can be used to implement preventative measures. MCOs reported implementing new claim edits, prepayment reviews, and education efforts to increase prevention efforts.

MCOs noted a similar process in their strategies to ensure that overpayments are recouped. Generally, MCOs alert providers to overpayments and request a return of funds or an enrollment in a payment plan. Providers can appeal if they disagree with the MCO's finding of an overpayment. Alternatively, MCOs will offset a portion of future claims to recoup the overpayment. If the healthcare provider that received the overpayment stops participating in the MCO's provider network, MCOs can take other actions to recoup payments. For example, three MCOs self-reported that the case would be forwarded to their legal department to take further collection action, while two other MCOs noted that they would ultimately use a recovery vendor to recoup payments.

Section 3: Strategies to Reduce Potentially Preventable Events

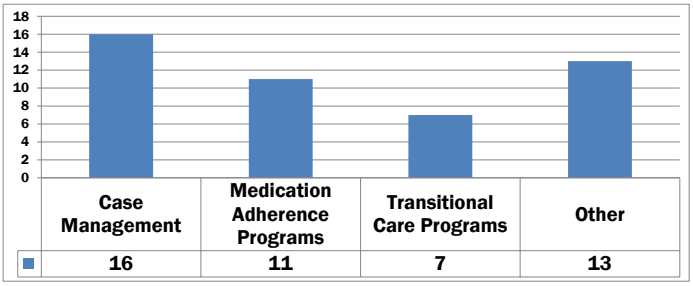
Health plan administrators aim to reduce potentially preventable events (PPEs) because they contribute to poor health outcomes and a lower quality of care. PPEs are healthcare encounters that may have been avoided if a preventative intervention had been used. An example of a PPE is if an emergency room visit may have been prevented if treatment had occurred in a non-emergent setting, such as a primary care physician's office.[46] Most MCOs indicated they generally do not consider reducing PPEs to be a program integrity activity.

Currently, HHSC collects program measurements about PPEs. HHSC requires both hospital systems and MCOs to report information about the number of potentially preventable hospital admissions, potentially preventable hospital readmissions, potentially preventable complications, and potentially preventable emergency room visits. MCOs are evaluated by their performance against benchmarks or against prior year's performance through the MCO Pay-for-Quality Program.[47] Because there are no national benchmarks for PPE measures, each MCO's performance is compared to the risk-adjusted program rate for each managed care program.[48] Texas incentivizes reductions in PPEs by offering incentive payments and rewards for MCOs that decrease preventable emergency room visits, potentially preventable hospital admissions, potentially preventable hospital readmissions, and potentially preventable complications. Additionally, if a MCO performs below expectations for its preventable emergency room visits performance measures, the MCO may be penalized by HHSC.[49] The most frequently used

strategy to help reduce PPEs is client case management as reported on the OIG Cost Avoidance and Waste Prevention Survey. Figure 4 shows 16 MCOs use client case management programs to prevent and reduce the number of PPEs.

The second-most used strategy was the use of medication adherence programs, which 11 MCOs utilized. Medication adherence programs work to help limit PPEs by ensuring that patients are taking their medicines and ensures prescriptions are refilled on time.[50] These programs seek to limit PPEs by identifying vulnerable patients who may have difficulty taking their prescription and establishing a trusting relationship with the patient to help the patient take their prescription appropriately and on schedule.[51]

Figure 4. Strategies used by the Texas MCOs to reduce Potentially Preventable Events beyond the disease management provisions required by the Texas Administrative Code (1 Tex. Admin. Code §353.421) and the HHSC Uniform Managed Care Manual (Chapter 9)



Source: OIG Cost Avoidance and Waste Prevention Survey, December 2017

Self-Reported Success Stories about Reducing Potentially Preventable Events

Seven MCOs use transitional care programs.[52] Transitional care programs aim to reduce specific types of PPEs by ensuring newly discharged hospital enrollees are not readmitted. Transitional care programs are designed to help ensure coordination and continuity of healthcare as a high-risk patient transitions to a different location or to a different level of care.[53] One MCO reported a reduction in PPEs from its Medical Health Home initiative. Through a partnership with a Federally Qualified Health Center (FQHC), the FQHC receives the Medicaid member's information and the reason for their emergency room visit or readmission. The FQHC provides supports such as transportation, education, and medication compliance programs to prevent future readmissions. The MCO reported that the partnership improves patient safety and reduces costly readmissions.[54]

One MCO created an electronic data panel for its network providers to access their PPE data, including their Value Index Score (VIS). The VIS shows the provider's overall quality care compared to other providers within the network. The MCO reported that this has reduced the rate of potentially preventable emergency department visits while increasing the quality of healthcare provided to recipients.[55]

Another MCO ranks providers in comparison with their peers. For providers who are outliers, personal meetings are arranged with the MCO's Chief Medical Officer or designee and may be referred to the Credentialing Committee for quality variances and corrective action plans.[56]

Section 4: Performance Measures and Program Integrity Efforts

Performance measurements are used to monitor and evaluate program performance and operational efficiency. Well-developed performance measures improve accountability by providing metrics from which agency performance can be judged.[57]

Research identifies that some fraud control performance indicators have been labeled ambiguous. Moreover, performance measurements indicating a high dollar value in recoveries for fraudulent payments in a healthcare system may appear to be a positive indicator; however, researchers point out that these successes may also be thought of as significant gaps that should have been prevented. Without documentation to validate the effectiveness of MCO preventative (cost avoidance) efforts, it is difficult to know if recoveries are limited because prevention efforts are comprehensive, or if the organization's post-payment detection systems are inadequate.[58]

Despite the prevalence of program integrity efforts nationwide, there are not universally defined, standardized, and widely accepted methods for quantifying the cost avoidance resulting from these efforts.[59] Commercial and

public health plans have different methods to measure cost avoidance and calculations can vary widely depending on the health plan.[60]

By its nature, FWA is only measurable by what is detected, and the entire scope of fraud schemes is unknown if undetected. The Journal of Insurance Medicine reports that performance measurements can be ambiguous because increased fraud detection could mean either "the detection apparatus improved, or the underlying incidence of fraud increased."[61] Furthermore, while edits and prepayment reviews can be effective at rejecting claims due to billing errors, inappropriate billing procedures, or other errors, these systems do not verify that the service was provided as billed and/or that the diagnosis was genuine.[62]

Additionally, state Medicaid programs and CHIP MCOs have differing populations and geographic areas. When establishing uniform performance measurements on cost avoidance and waste prevention activities, these differences should be taken into account.

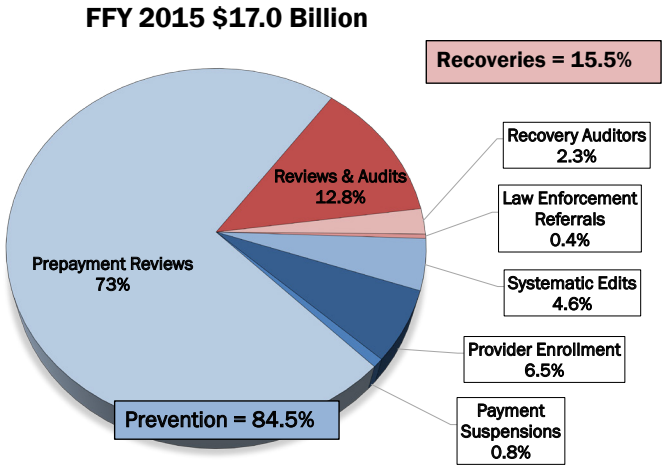
Limited Federal and Industry Guidance about Medicaid and CHIP Performance Measures

CMS is the federal agency within the U.S. Department of Health and Human Services (HHS) that administers the Medicare program and works in partnership with state governments to administer Medicaid and CHIP. In May 2016, CMS modernized Medicaid and CHIP managed care oversight by standardizing expectations for all managed care organizations, and updating program standards to reflect the current scope of Medicaid managed care programs (42 CFR 438).

CMS and other states did not identify any industry standards or performance metric guidelines for calculating savings from cost avoidance initiatives in Medicaid and CHIP, therefore, CMS has not published guidance on Medicaid and CHIP cost avoidance activities. The Medicaid and CHIP Payment and Access Commission reports that while dollars recovered from either wasteful or fraudulent overpayments are easily quantifiable, cost avoidance activities can be harder to calculate because they must be estimated.[63] As indicated in its federal fiscal year 2015 annual report on integrity programs, CMS is working to refine an approach to measure the impact of cost avoidance initiatives on Medicaid program costs, but it has not yet published estimated savings or provided specific guidance for measuring Medicaid or CHIP cost avoidance activities.[64]

However, CMS has shown increased interest in the cost

Figure 5. Medicare Savings by Program Integrity Activity Federal Fiscal Year 2015



Source: Annual Report to Congress on Medicare and Medicaid Program Integrity Programs. Centers for Medicare & Medicaid Services. September 2015.

avoidance activities performed by Medicaid MCOs as shown in their recent state program integrity reviews. CMS discussed the cost avoidance activities of Medicaid MCOs in program integrity reviews of 18 states and Puerto Rico since January 2016.[65] The most common recommendation to states about MCO cost avoidance is to collect evidence from MCOs to support their claims about cost avoidance.[66] Ten states, including Texas, received this recommendation from CMS; CMS also recommended Texas should obtain evidence in support of any statements MCOs made attributing to a decline in overpayments as a direct result of cost avoidance activities.[67] CMS did not provide state-specific guidance about how MCOs should calculate their cost avoidance activities.[68]

However, CMS does report Medicare performance measures on cost avoidance activities. CMS reports the estimated Medicare cost savings of its prevention activities. CMS measures its return on investment by reporting on the estimated Medicare savings from program integrity activities.

During federal fiscal years 2014, CMS reported this was the first time any organization in the public or private sector had attempted to develop an adjustment factor to calculate the proportionate impact of cost avoidance savings as applied to healthcare fraud detection and prevention activities.[69] Estimated savings are reported in two categories: prevention savings and post-payment recovery savings. During federal fiscal years 2015, CMS reported that annual Medicare savings totaled $17 billion. Prevention savings accounted for 84.5 percent, or $14.4 billion of savings and post-payment recovery savings

totaled $2.6 billion, or 16 percent, of the program's total savings in federal fiscal year 2015.[70]

Performance measurements reported by CMS about prevention savings include cost avoidance activities. These performance measures included savings from systematic edits, provider enrollment denials, prepayment reviews, and suspensions. Most Medicare cost savings were from prepayment reviews which accounted for 72.7 percent of total program integrity savings.[71] Post-payment recovery measures included savings from reviews and audits, recovery auditors, and law enforcement referrals.

Other States' Efforts to Measure Program Integrity Initiatives

While it is unclear the extent to which states report their MCOs' cost avoidance activities, there are a few states that collect performance measures about MCO cost avoidance. Additionally, in states that do collect cost avoidance information, there is significant variation in how it is measured by MCOs. For example, the South Carolina Inspector General found the methodology used for calculating cost avoidance varied greatly among MCOs.[72] While some MCOs measure cost avoidance as the "total claims rejected by prepayment review," others calculate it by counting the savings associated with a single claim and extrapolating the savings for future claims to calculate future costs prevented."[73] Without explicit definitions about what is an avoided cost, the South Carolina Inspector General found that some MCOs reported cost avoidances as recoveries, while others did not. Additionally, the South Carolina Inspector General found that MCOs would report only suspected abuse and fraud cases and not include all overcharges that had been identified in post-payment reviews as a cost avoidance.[74]

The New York Office of the Medicaid Inspector General collects performance measurements about cost avoidance and prevention activities, but refers to it as "cost savings." New York includes the monetary value of claims sent to third party liability and the savings from the potential claims of providers who have been removed from the Medicaid system.[75] New York also includes the monetary value of the savings resulting from specific claim edits, however New York does not report on MCO cost avoidance.[76]

The Arizona Healthcare Cost Containment System reports the state's dollar values of cost avoidance and includes the cost avoided from third party liability, member cost avoidances related to social security records, and Vital Records death documentation.[77] However, Arizona did not report about MCO cost avoidance activities.[78]

According to the Centennial Care Reporting Instructions for managed care organizations in New Mexico, the Human Services Department requires contracted Medicaid MCOs to submit quarterly reports about program integrity activities, including cost avoidance and return on investments.[79]

New Mexico requires its Medicaid MCOs to report cost avoidance as the dollar amount that would have been paid to the provider due to the result of a program integrity prepayment review or claim specific edit. This includes code denial descriptions such as maximum frequency for the service has been met, or invalid place of service for procedure. However, there was no published guidance on the specific methodology for evaluation.[80]

Texas MCOs' Efforts to Measure Cost Avoidance

According to results from the OIG Cost Avoidance and Waste Prevention Survey, MCOs indicate variation in how each MCO evaluates the effectiveness of its cost avoidance activities. The most commonly reported measure MCOs use is the total dollars generated from cost avoidance activities. The second most reported measurement was the number of claims denied by edits and the dollar values of these claims.

Five MCOs reported that they evaluate their cost avoidance strategies by calculating the dollar value of the change in billing patterns before and after a cost avoidance intervention is taken by the MCO on a healthcare provider (such as a requiring the provider to submit a corrective action plan). Four MCOs indicated that they evaluate their cost avoidance and waste prevention activities by the total dollars recovered through post-payment and auditing activities.[81] One MCO indicated it has quantifiable, budgeted benchmarks for cost avoidance activities. Two MCOs report that they track the number of improvements identified and implemented from their cost avoidance program in addition to the dollar amounts avoided.[82]

Despite that five MCOs use a similar method to evaluate the effectiveness of their cost avoidance strategies, their methodologies and calculations vary. Some MCOs measure the change in billings for 1 to 2 years after an implemented intervention, while at least one MCO looks at the changes in billing patterns that occurred over a 90-day period before and after an intervention occurred. Methodologies for calculating cost avoidance varied from MCO to MCO and may also vary depending on provider

type and the services affected by the intervention. The reporting time period for cost avoidance measurements varies too, and can be dependent on the type of provider and the specific services affected by the MCO's intervention.

Texas MCOs' Recommendations for Performance Measures

The OIG Cost Avoidance and Waste Prevention Survey included an opportunity for MCOs to provide input about recommendations for potential performance measures. The most common recommendation offered was to calculate the dollar value of the change in billing patterns before and after an action has been taken by the MCO on a healthcare provider, such as requiring a provider to implement a corrective action plan. This method allows the MCO to estimate or quantify the effects of the cost avoidance/waste prevention activity.

MCO methodologies for recommended performance measures varied. One MCO suggested the time frame used for calculating prevented loss should be a maximum of 12 months after the intervention and the calculation would be based on the pre and post-intervention number of enrollees seen, as well as the cost-per-patient seen. This MCO indicated that this calculation is consistent with a recommended measure used by the National Health Care Anti-Fraud Association.[83] Another MCO recommended calculating the decreased costs of care related to specific provider education efforts. These calculations determine the estimated value of the costs avoided based on previous billed experiences. However, one MCO reports that while it is easy to quantify cost avoidance when direct actions are taken about a specific provider (prepayment reviews for one provider), the value of cost avoidances implemented by system-wide efforts (such as requiring enhanced provider screenings in a high-risk area) are harder to attribute a specific dollar amount.[84]

Other suggestions included benchmarking cost avoidance activities based on prior experiences and through budget setting targeted cost avoidances. Three MCOs recommended that state officials continue to concentrate on performance measures related to post-payment review activities, such as the number of dollars identified and recovered by MCO SIUs. Similar to CMS and other states, one MCO suggested using the dollar value of claims avoided by using third party liability prepayment reviews as a performance measurement.

Because of the variety in the performance measurements used by MCOs, any performance measurements used to evaluate MCO cost avoidance and waste prevention activities would need to be clearly defined yet broad enough to ensure applicability across all MCOs. Additionally, even though MCOs used similar strategies for cost avoidance, the specific activities and details within each strategy varied significantly.

MCOs also noted that effective prepayment cost avoidance programs will not result in cash recoveries. While recoveries of overpayments from post-payment reviews may result in a return of actual dollars, cost avoidance stops improper payments from initially occurring resulting in no direct recovery of funds.

Section 5: Recommendations

Performance Measure Framework

According to the Governmental Accounting Standards Board, qualities of good performance measures include the following criteria: (1) relevant and reliable indicator of performance, (2) understandable and easily measurable, (3) correlated to a business function, and (4) comparable among organizations.[85]

To ensure a performance measure is relevant and reliable, it needs to be valuable to its users and regulators. The measure should use data that is verifiable and without bias. For example, the data should be accessible to oversight entities and available for periodic audit and inspection. Experts and novices should both find the performance measure understandable. Measurement definitions and descriptions should be clear and easy to understand regardless of one's technical expertise. The utility of the measure should correlate to a business function.[86]

Without a standardized and shared methodology for calculating certain measures, such as cost avoidance activities, MCOs may report inconsistent data. Moreover, variable data classified as cost avoidance may be reported. A standardized methodology assists oversight entities to compare a MCO's performance to its peers and its previous performance. Although it is important to have a standardized methodology, it is also important to ensure that the methodology used to calculate cost avoidance is inclusive of the wide variety of activities that MCOs use.

Despite the difficulty in establishing performance

measures, specifically for cost avoidance activities, several states and CMS have already begun to try to quantify and evaluate their efforts. New Mexico, South Carolina, and others take different approaches to measuring cost avoidance activities by Medicaid MCOs.[87] However, state oversight agencies have recognized the importance of establishing a standard methodology and definition for the development of performance measures. Without either, a baseline for measurement and comparison among MCOs cannot occur. In ten of its recent state program integrity reviews, CMS recommended to states to collect supporting documentation from Medicaid MCOs about their cost avoidance and prevention activities.[88]

Learning from other states' experiences when establishing performance measures for cost avoidance and waste prevention activities, the OIG recommends the following:

Recommendation 1: Require Medicaid and CHIP managed care organizations and dental maintenance organizations to report performance measures based on the dollar value of costs avoided and the value of costs avoided as a percent of total paid claims.

To evaluate the adequacy and effectiveness of MCO cost avoidance activities, the OIG recommends that HHSC require MCOs and DMOs to report cost avoidance activities by the dollar value. CMS' and other states' cost avoidance performance measures also identify the dollar values of cost avoided. Additionally, 16 MCOs use (or recommended using) the dollar value of costs avoided according to the 2017 OIG Cost Avoidance and Waste Prevention Survey. To ensure comparison across MCOs, the OIG recommends comparing the dollar value of costs avoided relative to an MCO's total value of claims paid to providers.

Recommendation 2: Require Medicaid and CHIP managed care organizations and dental maintenance organizations to use standard methodologies to calculate and evaluate their cost avoidance related to fraud, waste, and abuse prevention activities.

Other states and the federal government have noted that establishing a standard methodology and definition would allow a baseline for measurement and comparison among MCOs. Moreover, in several of its recent state program integrity reviews, CMS recommended to states to collect supporting documentation from Medicaid MCOs about their cost avoidance and prevention activities.

Recommendation 3: Establish a workgroup with stakeholders to develop standardized methodologies to calculate and evaluate managed care organizations' costs avoidance activities as a result of fraud, waste, and abuse prevention activities.

At present, MCOs use varying methodologies and definitions for their internal performance measures. Due to the diversity of cost avoidance techniques used by MCOs, establishing a workgroup will allow for MCO input and collaboration so that performance measure definitions and methodologies take into account the cost avoidance and waste prevention activities in use. More collaboration with MCOs may ensure performance measures accurately, effectively, and equitably evaluate MCO performance related to FWA cost avoidance.

Other states and the federal government have noted that establishing a standard methodology and definition would allow a baseline for measurement and comparison among MCOs.

The workgroup discussions may take into account the methodologies suggested by Texas Medicaid and CHIP MCOs, as well as CMS, such as the:

- Dollar value of savings from systematic edits related to FWA activities;
- Dollar value of savings from preventing improper provider enrollment (and savings from suspending providers engaging in FWA activities);
- Dollar value of savings from prepayment reviews (e.g. medical reviews and prior authorizations); and
- Dollar value of the change in billing patterns before and after a cost avoidance intervention is taken by the MCO on a healthcare provider (such as a requiring the provider to submit a corrective action plan or the reduction in the dollar value of billing after a provider education initiative).

Currently, MCOs are required to report to the OIG the annual amount recovered from fraud and abuse. CMS recommended in several of its recent state program integrity reviews that states collect supporting documentation from MCOs about their cost avoidance and prevention activities. Because of CMS' interest, the workgroup may consider the relationship between increases in reported cost avoidance savings and decreases in total recoveries.

While quantifying a dollar value for cost avoidance activities can be a common performance measure, non-financial performance measures may be beneficial to demonstrate the breadth of an MCO's FWA activities. For example, by tracking the total number of claim denied by edits related to FWA or the number of providers receiving payment suspensions may demonstrate the varying efforts occurring within the MCO.

Appendix A: Report Methodology

To address the requirements of 2018-2019 General Appropriations Act, Senate Bill 1, 85th Legislature, Regular Session, 2017 (Article II, Health and Human Services Commission, Rider 151), the OIG:

- Surveyed all 22 MCOs and DMOs participating in Texas Medicaid and CHIP about their cost avoidance and waste prevention activities and had a 100 percent response rate.
- Distributed a 26-question survey to provide MCOs and DMOs the opportunity to document their efforts and strategies, as well as to share success stories or any additional relevant information pertaining to Rider 151. This report details the aggregate findings from survey responses, including results from follow-up conversations with MCOs and their reported success stories about cost avoidance practices
- Obtained further insight into their cost avoidance and waste prevention activities by hosting five conference calls with MCOs and DMOs and conducting multiple follow-up conversations with five MCOs. The survey questions can be found in Appendix B.
- Researched and reviewed national practices about cost avoidance, waste prevention strategies, and documented practices used by various states.
- The information provided in the report from MCOs and DMOs is self-reported data and was not independently validated or audited by OIG staff.

Appendix B: Cost Avoidance and Waste Prevention Survey

HHSC Office of Inspector General Survey on Cost Avoidance and Waste Prevention As Distributed to MCOs and DMOs

Background

The Texas Legislature requires the OIG to conduct a review of the cost avoidance and waste prevention activities used by Medicaid and CHIP managed care organizations (MCO). To do this, we are sending this survey to learn more about how your organization prevents waste and achieves cost avoidance. The survey is an opportunity to collaborate with the OIG and to document the cost avoidance and waste prevention strategies your organization uses. It also provides the chance to share implementation success stories and suggestions about how the OIG could improve its support of your cost avoidance efforts.

Ultimately, survey responses will be used to inform the OIG's report and recommendations to the Legislative Budget Board and the Governor about performance measures related to MCO cost avoidance and waste prevention activities.

Definitions

Cost Avoidance Strategy: An intervention beyond regular business practices that reduces or eliminates a cost that would have otherwise occurred if not for the use of the intervention; an activity that identifies and prevents improper payments before the payment is made; not "pay and chase" recoupments.

Waste Prevention Strategy: An activity taken to stop practices that a reasonably prudent person would deem careless or that would allow inefficient use of resources, items or services.

Survey Questions

General Cost Avoidance and Waste Prevention Strategies:

1. What is the name of your organization?

2. Please identify whom at your organization the OIG may contact if we need to follow up with your organization about your survey responses. Please provide at least two points of contact.

3. Identify the strategies that have been most effective in reducing costs through cost avoidance and waste prevention

☐ Prepayment Reviews

☐ Post-payment Review

☐ Potentially Preventable Event Reductions of (hospital readmission, etc.)

☐ Conduct Internal Monitoring and Internal Audits

☐ Other Strategies (please specify)

4. Please explain why your MCO has found this strategy (or strategies) to be the most effective in reducing cost and/or preventing waste.

5. How does your MCO evaluate the effectiveness of its cost avoidance strategies (e.g. performance measures, such as the total number of incorrectly billed claims avoided)?

6. What specific strategies of cost avoidance/waste prevention strategies could be expanded or strengthened?

Prepayment Review Strategies

7. Please identify which of the following lines of business your responses in this section apply to:

☐ STAR

☐ STAR Health

☐ Star +PLUS

☐ Star Kids

☐ CHIP

☐ Medicaid Dental

8. Please select all methods and strategies used to identify possible overpayments related to fraud, waste, and abuse. For strategies not listed, please identify in "Other Strategies."

☐ Front-End Claim Edits

☐ Claims Prepay Programs

☐ APC/DRG Editing

☐ Other Strategies (Please Specify):

9. Provide an example of a success story of a prepayment review strategy:

Post-payment Review Strategies

10. Please identify which of the following lines of business your responses in this section apply to:

☐ STAR

☐ STAR Health

☐ Star +PLUS

☐ Star Kids

☐ CHIP

☐ Medicaid Dental

11. Please select all methods and strategies used to identify possible overpayments related to fraud, waste, and abuse. For strategies not listed, please identify in "Other Strategies."

☐ Surveillance & Utilization Reviews

☐ Data Mining

☐ Duplicate Payment Detections

☐ Other Strategies (Please Specify):

12. What are actions and strategies taken to ensure that overpayments from fraud, waste and abuse are recouped?

13. Provide an example of a success story of a post-payment review strategy:

Strategies to Decrease Potentially Preventable Events

14. Please identify which of the following lines of business your responses in this section apply to:

☐ STAR

☐ STAR Health

☐ Star +PLUS

☐ Star Kids

☐ CHIP

☐ Medicaid Dental

15. What diagnosis groups are the focus of your efforts to reduce Potentially Preventable Events (e.g. Potentially Preventable Hospital Admissions, Potentially Preventable Readmissions, etc.)?

☐ Asthma

☐ Chronic Obstructive Pulmonary Disease

☐ Diabetes

☐ Heart Failure

☐ Other Diagnosis Groups/Populations (Please Specify):

16. What strategies are used to reduce Potentially Preventable Events beyond the disease management provisions required by the Texas Administrative Code (1 Tex. Admin. Code §353.421) and the HHSC Uniform Managed Care Manual (Chapter 9)?

☐ Case Management

☐ Medication Adherence Programs

☐ Transitional Care Programs

☐ Other Strategies (Please Specify):

17. Provide an example of a success story about reducing

Potentially Preventable Events:

Internal Monitoring and Audits

18. Does your MCO use internal monitoring and internal audits to evaluate and improve cost avoidance activities?

☐ Yes

☐ No

19. Provide an example of a success story from a recommendation implemented as the result of an internal audit.

Further Questions

20. Please identify prepayment and post-payment strategies used to prevent waste, as defined by the Texas Administrative Code, "Practices that a reasonably prudent person would deem careless or that would allow inefficient use of resources, items, or services."

21. Per Rider 167 of the 2018–19 General Appropriations Act, the Legislature Budget Board and Office of the Governor are requesting recommendations for performance measurements about cost avoidance and waste prevention activities to measure Medicaid and CHIP MCOs efforts. Please identify performance measures that may evaluate cost avoidance and waste prevention activities (i.e. the dollar value of costs avoided through prepayment reviews). It is important to also include information about how each performance measure could be defined and calculated.

22. How could the OIG support your cost avoidance programs and waste prevention efforts?

23. Beyond participating in the SIU quarterly meetings, how does your MCO collaborate with other Medicaid and/or CHIP MCOs when one of your providers is suspected of overpayments related to fraud, waste and abuse?

24. Are there any additional cost avoidance or waste prevention strategies (or expansions of existing strategies) not otherwise identified in the survey that your organization will be piloting (or expanding) in the near future?

25. Is there any other information/comments related to cost avoidance and waste prevention efforts and strategies that you would like to share?

26. *Question Only Applicable for MCOs that Manage Both Medicaid Programs and CHIP: Does your MCO's cost avoidance and waste prevention activities for CHIP differ from those used for Medicaid programs? Is so, please describe how the strategies for CHIP differ from your Medicaid program strategies.

Appendix C: Acronyms used in this report

APC Ambulatory Payment Classification

CHIP Children's Health Insurance Program

CMS Centers for Medicare and Medicaid Services

DRG Diagnosis Related Groups

DMO Dental Maintenance Organization

FFS Fee-For Service

FQHC Federally Qualified Health Centers

FWA Fraud, Waste and Abuse

GAO Government Accountability Office

HHS United States Department of Health and Human Services

HHSC Health and Human Services Commission

MCO Managed Care Organization

OIG Office of Inspector General

PPE Potentially Preventable Events

SIU Special Investigative Unit

SUR Surveillance and Utilization Review

TMPPM Texas Medicaid Provider Procedures Manual

VIS Value Index Score

Appendix D: Endnotes

[1] Arizona Health Care Cost Containment System, "AHCCCS Program Integrity Plan SFY 2011," Arizona Health Care Cost Containment System, Accessed January 2018.; Human Services Department, State of New Mexico, "Centennial Care Reporting Instructions Program Integrity - Report #56," Human Services Department, State of New Mexico, Rev. v4 2014-12. http://www.hsd.state.nm.us/uploads/FileLinks/c06b4701fbc84ea3938e646301d8c950/%2356___Program_Integrity_Instructions___v4_2014_12.pdf .; and Office of the State Inspector General, South Carolina, "Review of Program Integrity Operations at Six Managed Care Organizations delivering Medical Services under a Contract with the South Carolina Department of Health & Human Services, Office of the State Inspector General, South Carolina, April 2016 https://www.scstatehouse.gov/CommitteeInfo/HouseLegislativeOversightCommittee/AgencyWebpages/DHHS/IG%20Report%20-%20Review%20of%20MCO%20Program%20Integrity.PDF; New York State Office of the State Comptroller, "Accuracy of Reported Cost Savings Office of the Medicaid Inspector General," New York State Office of the State Comptroller, July, 2014. http://osc.state.ny.us/audits/allaudits/093014/13s29.pdf

[2] The 2018-2019 General Appropriations Act, Senate Bill 1, 85th Legislature, Regular Session, 2017.

[3] HHSC Forecasting. "Medicaid and CHIP Enrollment SFY 2017," HHSC, February 2018. Enrollment figures are an average monthly estimate as SFY 2017 data is incomplete and not yet final.

[4] The 2018-2019 General Appropriations Act, Senate Bill 1, 85th Legislature, Regular Session, 2017.

[5] HHSC Forecasting. "Medicaid and CHIP Enrollment SFY 2017," HHSC, February 2018. Enrollment figures are an average monthly estimate as SFY 2017 data is incomplete and not yet final.

[6] Texas Medicaid & Healthcare Partnership HHSC, "Texas Medicaid Provider Procedures Manual," HHSC December, 2017.

[7] Title 1, Texas Administrative Code Part 15. Chapter 353. Sections 353.501 through 353.505.

[8] HHSC OIG, "HHSC OIG Annual Report on Certain Fraud and Abuse Recoveries by Managed Care Organizations (MCOS) - SFY 2017," HHSC, November 2017. https://oig.hhsc.texas.gov/sites/oig/files/reports/Annual-Report-on-Certain-Fraud-and-Abuse-Recoveries-FY-2017.pdf HHSC OIG, "HHSC OIG Annual Report on Certain Fraud and Abuse Recoveries by Managed Care Organizations (MCOS) - SFY 2015," HHSC, January 2016. https://hhs.texas.gov/reports/2016/01/hhsc-oig-annual-report-certain-fraud-and-abuse-recoveries-fiscal-year-2015.

[9] (Medicaid and CHIP Payment and Access Commission) MACPAC, "Program Integrity," MACPAC. Accessed December 2017. https://www.macpac.gov/subtopic/program-integrity/

[10] The PEW Charitable Trusts, "Combating Medicaid Fraud and Abuse," The PEW Charitable Trusts and the MacArthur Foundation, March 2013. http://www.pewtrusts.org/en/research-and-analysis/reports/0001/01/01/combating-medicaid-fraud-and-abuse Page 3.

[11] "Identify, Predict, Prevent, Recover: A Handbook for Medicaid Program Integrity," The Governing Institute and OPTUMTM, 2015. https://stg-www.optum.com/resources/library/medicaid-program-integrity.html Page 6.

[12] "Identify, Predict, Prevent, Recover: A Handbook for Medicaid Program Integrity," The Governing Institute and OPTUMTM, 2015. https://stg-www.optum.com/resources/library/medicaid-program-integrity.html Page 7.

[13] "Identify, Predict, Prevent, Recover: A Handbook for Medicaid Program Integrity," The Governing Institute and OPTUMTM, 2015. https://stg-www.optum.com/resources/library/medicaid-program-integrity.html Page 8.

[14] Title 1, Texas Administrative Code Part 15. Chapter 353. Sections 353.501 through 353.505.

[15] CMS, "Annual Report to Congress on the Medicare and Medicaid Integrity programs for Fiscal Year 2015," CMS, June 2017. https://www.cms.gov/About-CMS/Components/CPI/Downloads/2015-final-rtc-06232017.pdf ; and Office of the State Inspector General, South Carolina, "Review of Program Integrity Operations at Six Managed Care Organizations delivering Medical Services under a Contract with the South Carolina Department of Health & Human Services, Office of the State Inspector General, South Carolina, April 2016 https://www.scstatehouse.gov/CommitteeInfo/HouseLegislativeOversightCommittee/AgencyWebpages/DHHS/IG%20Report%20-%20Review%20of%20MCO%20Program%20Integrity.PDF; New York State Office of the State Comptroller, "Accuracy of Reported Cost Savings Office of the Medicaid Inspector General," New York State Office of the State Comptroller, July, 2014.

[16] "Identify, Predict, Prevent, Recover: A Handbook for Medicaid Program Integrity," The Governing Institute and OPTUMTM, 2015. https://stg-www.optum.com/resources/library/medicaid-program-integrity.html Page 6.

[17] HHSC-OIG, "IG Cost Avoidance Waste Prevention Survey," HHSC-OIG, December 2017.

[18] HHSC-OIG, "IG Cost Avoidance Waste Prevention Survey," HHSC-OIG, December 2017.

[19] HHSC-OIG, "IG Cost Avoidance Waste Prevention Survey," HHSC-OIG, December 2017.

[20] Department of Health and Human Services Office of Inspector General, "Medicaid Claims Processing Safeguards," HHS-OIG, July 2000. Page 7.

[21] HHSC-OIG, "IG Cost Avoidance Waste Prevention Survey," HHSC-OIG, December 2017.

[22] Department of Health and Human Services Office of Inspector General, "Medicaid Claims Processing Safeguards," HHS-OIG, July 2000. Page 8.

[23] HHSC-OIG, "IG Cost Avoidance Waste Prevention Survey," HHSC-OIG, December 2017.

[24] HHSC-OIG, "IG Cost Avoidance Waste Prevention Survey," HHSC-OIG, December 2017.

[25] HHSC-OIG, "IG Cost Avoidance Waste Prevention Survey," HHSC-OIG, December 2017.

[26] CMS, "There are Many Types of Medicaid Fraud," CMS, Accessed February 25, 2018. https://www.cms.gov/Medicare-Medicaid-Coordination/Fraud-Prevention/Medicaid-Integrity-Education/Downloads/infograph-There-Are-Many-Types-Medicaid-Fraud-[May-2016].pdf
[27] HHSC-OIG, "IG Cost Avoidance Waste Prevention Survey," HHSC-OIG, December 2017.
[28] HHSC-OIG, "IG Cost Avoidance Waste Prevention Survey," HHSC-OIG, December 2017.
[29] HHSC-OIG, "IG Cost Avoidance Waste Prevention Survey," HHSC-OIG, December 2017.
[30] HHSC-OIG, "IG Cost Avoidance Waste Prevention Survey," HHSC-OIG, December 2017.
[31] CMS, "Medicaid Integrity Program Best Practices Annual Summary," CMS, June 2011. https://www.cms.gov/Medicare-Medicaid-Coordination/Fraud-Prevention/FraudAbuseforProfs/Downloads/2011pisummary.pdf Page 2
[32] CMS, "Medicaid Integrity Program Best Practices Annual Summary," CMS, June 2011. https://www.cms.gov/Medicare-Medicaid-Coordination/Fraud-Prevention/FraudAbuseforProfs/Downloads/2011pisummary.pdf Page 4
[33] "Identify, Predict, Prevent, Recover: A Handbook for Medicaid Program Integrity," The Governing Institute and OPTUMTM, 2015. https://stg-www.optum.com/resources/library/medicaid-program-integrity.html Page 7.
[34] Government Accountability Office, "Report to the Chairman, Committee on Finance, U.S. Senate: Medicaid Program Integrity," Page 13.
[35] Malcolm Sparrow, "Health Care Fraud control Understanding the Challenge," Journal of Insurance Medicine. Vol. 28, No. 2. 1996. Page 92.
[36] HHSC-OIG, "IG Cost Avoidance Waste Prevention Survey," HHSC-OIG, December 2017.
[37] Martin Brown, "Data Mining Techniques," IBM. December 2012. Page 1. & Lou Ann Wiedemann, "Leveraging Data and Analytics to Detect Fraud and Abuse in Healthcare," Journal of AHIM, August 2014.
[38] HHSC-OIG, "IG Cost Avoidance Waste Prevention Survey," HHSC-OIG, December 2017.
[39] HHSC-OIG, "IG Cost Avoidance Waste Prevention Survey," HHSC-OIG, December 2017.
[40] Predictive Analytics Today, "What is Predictive Modeling?" Predictive Analytics Today. Accessed February 25, 2018. https://www.predictiveanalyticstoday.com/predictive-modeling/ "Predictive modeling is the process of creating, testing, and validating a model to best predict the probability of an outcome."
[41] HHSC-OIG, "IG Cost Avoidance Waste Prevention Survey," HHSC-OIG, December 2017.
[42] HHSC-OIG, "IG Cost Avoidance Waste Prevention Survey," HHSC-OIG, December 2017.
[43] HHSC-OIG, "IG Cost Avoidance Waste Prevention Survey," HHSC-OIG, December 2017.
[44] Washington State Department of Labor & Industries, "Utilization Reviews," Washington State Department of Labor & Industries. Accessed on December 14, 2017.
[45] HHSC-OIG, "IG Cost Avoidance Waste Prevention Survey," HHSC-OIG, December 2017.
[46] HHSC, "Potentially Preventable Events," HHSC, Accessed on January 8, 2018. https://hhs.texas.gov/about-hhs/process-improvement/medicaid-chip-quality-efficiency-improvement/potentially-preventable-events
[47] HHSC, "Potentially Preventable Events," HHSC, Accessed on January 8, 2018. https://hhs.texas.gov/about-hhs/process-improvement/medicaid-chip-quality-efficiency-improvement/potentially-preventable-events
[48] HHSC, "HHSC Uniform Managed Care Manual, Medical Pay-for-Quality (P4Q) Program, Chapter 6.2.14, Version 2.0," HHSC, September 1, 2017. Page 6 of 28.
[49] HHSC, "Potentially Preventable Events," HHSC, Accessed on January 8, 2018. https://hhs.texas.gov/about-hhs/process-improvement/medicaid-chip-quality-efficiency-improvement/potentially-preventable-events
[50] HHSC-OIG, "IG Cost Avoidance Waste Prevention Survey," HHSC-OIG, December 2017.
[51] National Conference of State Legislatures, "Medication Adherence: Taking Pills as Ordered," National Conference of State Legislatures, Updated September 2016. http://www.ncsl.org/research/health/medication-adherence-taking-pills-as-ordered.aspx
[52] HHSC-OIG, "IG Cost Avoidance Waste Prevention Survey," HHSC-OIG, December 2017.
[53] National Association of Clinical Nurse Specialists, "Definitions of Transitional Care," National Association of Clinical Nurse Specialists, Accessed February, 2018. http://nacns.org/professional-resources/toolkits-and-reports/transitions-of-care/definitions-of-transitional-care/
[54] HHSC-OIG, "IG Cost Avoidance Waste Prevention Survey," HHSC-OIG, December 2017.
[55] HHSC-OIG, "IG Cost Avoidance Waste Prevention Survey," HHSC-OIG, December 2017.
[56] HHSC-OIG, "IG Cost Avoidance Waste Prevention Survey," HHSC-OIG, December 2017.
[57] Texas Department of Housing and Community Affairs, "An Internal Audit of Performance Measures at Texas Department of Housing and Community Affairs," Texas Department of Housing and Community Affairs. July 2014.
[58] Malcolm Sparrow, "Health Care Fraud control Understanding the Challenge," Journal of Insurance Medicine. Vol. 28, No. 2. 1996. Page 92.
[59] David Grice, "Calculating Cost Avoidance: A Closer Look at one of 2017's top payment integrity trends," DiscoveryTM Health Partners, August 30, 2017. https://www.discoveryhealthpartners.com/calculating-cost-avoidance-closer-look-one-2017s-top-payment-integrity-trends/ and Malcolm Sparrow, "Health Care Fraud control Understanding the Challenge," Journal of Insurance Medicine. Vol. 28, No. 2. 1996. Page 92.

[60] David Grice, "Calculating Cost Avoidance: A Closer Look at one of 2017's top payment integrity trends," DiscoveryTM Health Partners, August 30, 2017. https://www.discoveryhealthpartners.com/calculating-cost-avoidance-closer-look-one-2017s-top-payment-integrity-trends/
[61] Malcolm Sparrow, "Health Care Fraud control Understanding the Challenge," Journal of Insurance Medicine. Vol. 28, No. 2. 1996.
[62] Malcolm Sparrow, "Health Care Fraud control Understanding the Challenge," Journal of Insurance Medicine. Vol. 28, No. 2. 1996.
[63] (Medicaid and CHIP Payment and Access Commission) MACPAC, "Program Integrity," MACPAC. Accessed December 2017. https://www.macpac.gov/subtopic/program-integrity/
[64] CMS, "Annual Report to Congress on the Medicare and Medicaid Integrity programs for Fiscal Year 2015," CMS June 2017. https://www.cms.gov/About-CMS/Components/CPI/Downloads/2015-final-rtc-06232017.pdf
[65] CMS, "State Program Integrity Review Reports List," CMS, Accessed January 2018. https://www.cms.gov/Medicare-Medicaid-Coordination/Fraud-Prevention/FraudAbuseforProfs/State-Program-Integrity-Review-Reports-List.html OIG Staff reviewed all reports released from January 2016 until January 2018. The 19 program integrity reviews that discussed MCO cost avoidance activities were: MD, MI, MO, NC, NE, NH, NJ, NY, NV, OH, PA, Puerto Rico, RI, SC, TX, VA, VT, WI and WV.
[66] CMS, "State Program Integrity Review Reports List," CMS, Accessed January 2018. https://www.cms.gov/Medicare-Medicaid-Coordination/Fraud-Prevention/FraudAbuseforProfs/State-Program-Integrity-Review-Reports-List.html OIG Staff reviewed all reports released from January 2016 until January 2018. The 10 program integrity reviews that discussed MCO cost avoidance activities were: NH, NJ, NY, OH, RI, SC, TX, VA, WI and WV.
[67] CMS, "State Program Integrity Review Reports List," CMS, Accessed January 2018. https://www.cms.gov/Medicare-Medicaid-Coordination/Fraud-Prevention/FraudAbuseforProfs/State-Program-Integrity-Review-Reports-List.html OIG Staff reviewed all reports released from January 2016 until January 2018. TX.
[68] CMS, "State Program Integrity Review Reports List," CMS, Accessed January 2018. https://www.cms.gov/Medicare-Medicaid-Coordination/Fraud-Prevention/FraudAbuseforProfs/State-Program-Integrity-Review-Reports-List.html OIG Staff reviewed all reports released from January 2016 until January 2018. The 10 program integrity reviews that discussed MCO cost avoidance activities were: NH, NJ, NY, OH, RI, SC, TX, VA, WI and WV.
[69] CMS, "Report to Congress: Fraud Prevention System Second Implementation Year," CMS, June 2014. https://www.cms.gov/About-CMS/Components/CPI/Widgets/Fraud_Prevention_System_2ndYear.pdf
[70] CMS, "Annual Report to Congress on the Medicare and Medicaid Integrity programs for Fiscal Year 2015," CMS, June 2017. https://www.cms.gov/About-CMS/Components/CPI/Downloads/2015-final-rtc-06232017.pdf
[71] CMS, "Annual Report to Congress on the Medicare and Medicaid Integrity programs for Fiscal Year 2015," CMS, June 2017. https://www.cms.gov/About-CMS/Components/CPI/Downloads/2015-final-rtc-06232017.pdf
[72] Office of the State Inspector General, South Carolina, "Review of Program Integrity Operations at Six Managed Care Organizations delivering Medical Services under a Contract with the South Carolina Department of Health & Human Services, Office of the State Inspector General, South Carolina, April 2016. https://www.scstatehouse.gov/CommitteeInfo/HouseLegislativeOversightCommittee/AgencyWebpages/DHHS/IG%20Report%20-%20Review%20of%20MCO%20Program%20Integrity.PDF
[73] Office of the State Inspector General, South Carolina, "Review of Program Integrity Operations at Six Managed Care Organizations delivering Medical Services under a Contract with the South Carolina Department of Health & Human Services, Office of the State Inspector General, South Carolina, April 2016. https://www.scstatehouse.gov/CommitteeInfo/HouseLegislativeOversightCommittee/AgencyWebpages/DHHS/IG%20Report%20-%20Review%20of%20MCO%20Program%20Integrity.PDF
[74] Office of the State Inspector General, South Carolina, "Review of Program Integrity Operations at Six Managed Care Organizations delivering Medical Services under a Contract with the South Carolina Department of Health & Human Services, Office of the State Inspector General, South Carolina, April 2016. https://www.scstatehouse.gov/CommitteeInfo/HouseLegislativeOversightCommittee/AgencyWebpages/DHHS/IG%20Report%20-%20Review%20of%20MCO%20Program%20Integrity.PDF
[75] New York State Office of the Medicaid Inspector General, "2016 Annual Report," New York state Office of the Medicaid Inspector General. https://omig.ny.gov/images/stories/annual_report/2016_OMIG_Annual_Report.pdf Page 27.
[76] New York State Office of the Medicaid Inspector General, "2016 Annual Report," New York state Office of the Medicaid Inspector General. https://omig.ny.gov/images/stories/annual_report/2016_OMIG_Annual_Report.pdf Page 29-30.
[77] Arizona Health Care Cost Containment System, "AHCCCS Program Integrity Plan SFY 2011," Arizona Health Care Cost Containment System, Accessed January 2018. https://www.azahcccs.gov/AHCCCS/Downloads/Plans/ProgramIntegrityPlan_SFY2011.pdf & Arizona Health Care Cost Containment System, "AHCCCS Program Integrity Plan 2017," Arizona Health Care Cost Containment System, Accessed January 2018. https://www.azahcccs.gov/Fraud/Downloads/2017ProgramIntegrityPlan.pdf
[78] Arizona Health Care Cost Containment System, "AHCCCS Program Integrity Plan SFY 2011," Arizona Health Care Cost Containment System, Accessed January 2018. https://www.azahcccs.gov/AHCCCS/Downloads/Plans/ProgramIntegrityPlan_SFY2011.pdf; & Arizona Health Care Cost Containment System, "AHCCCS Program Integrity Plan 2017," Arizona Health Care Cost Containment System, Accessed January 2018. https://www.azahcccs.gov/Fraud/Downloads/2017ProgramIntegrityPlan.pdf

[79] Human Services Department, State of New Mexico, "Centennial Care Reporting Instructions Program Integrity - Report #56," Human Services Department, State of New Mexico, Rev. v4 2014-12. http://www.hsd.state.nm.us/uploads/FileLinks/c06b4701fbc84ea3938e646301d8c950/%2356___Program_Integrity_Instructions___v4_2014_12.pdf
[80] Human Services Department, State of New Mexico, "Centennial Care Reporting Instructions Program Integrity - Report #56," Human Services Department, State of New Mexico, Rev. v4 2014-12. http://www.hsd.state.nm.us/uploads/FileLinks/c06b4701fbc84ea3938e646301d8c950/%2356___Program_Integrity_Instructions___v4_2014_12.pdf
[81] HHSC-OIG, "IG Cost Avoidance Waste Prevention Survey," HHSC-OIG, December 2017.
[82] HHSC-OIG, "IG Cost Avoidance Waste Prevention Survey," HHSC-OIG, December 2017.
[83] HHSC-OIG, "IG Cost Avoidance Waste Prevention Survey," HHSC-OIG, December 2017.
[84] HHSC-OIG, "IG Cost Avoidance Waste Prevention Survey," HHSC-OIG, December 2017.
[85] Office of Financial Management, State of Washington, "Performance Measure Guide," Office of Financial Management, State of Washington, June 2016. Page 4.
[86] Office of Financial Management, State of Washington, "Performance Measure Guide," Office of Financial Management, State of Washington, June 2016. Page 4.
[87] Arizona Health Care Cost Containment System, "AHCCCS Program Integrity Plan SFY 2011," Arizona Health Care Cost Containment System, Accessed January 2018. ; Human Services Department, State of New Mexico, "Centennial Care Reporting Instructions Program Integrity - Report #56," Human Services Department, State of New Mexico, Rev. v4 2014-12. http://www.hsd.state.nm.us/uploads/FileLinks/c06b4701fbc84ea3938e646301d8c950/%2356___Program_Integrity_Instructions___v4_2014_12.pdf; and Office of the State Inspector General, South Carolina, "Review of Program Integrity Operations at Six Managed Care Organizations delivering Medical Services under a Contract with the South Carolina Department of Health & Human Services, Office of the State Inspector General, South Carolina, April 2016. https://www.scstatehouse.gov/CommitteeInfo/HouseLegislativeOversightCommittee/AgencyWebpages/DHHS/IG%20Report%20-%20Review%20of%20MCO%20Program%20Integrity.PDF
[88] CMS, "State Program Integrity Review Reports List," CMS, Accessed January 2018. https://www.cms.gov/Medicare-Medicaid-Coordination/Fraud-Prevention/FraudAbuseforProfs/State-Program-Integrity-Review-Reports-List.html OIG Staff reviewed all reports released from January 2016 until January 2018. The 10 program integrity reviews that contained recommendations for MCOs to provide evidence of cost avoidance activities were: NH, NJ, NY, OH, RI, SC, TX, VA, WI and WV.