Medicaid CHIP Data Analytics Unit
Quarterly Report of Activities SFY19, Q3

As Required by
2018-19 General Appropriations
Act, Senate Bill 1, 85th Legislature,
Regular Session, 2017
(Article II HHSC, Rider 38)

Texas Health and Human Services
Commission

July 2019
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1. Introduction

The 2018-19 General Appropriations Act, Senate Bill 1, 85th Legislature, Regular Session, 2017 (Article II, Health and Human Services Commission), Rider 38 directs the Health and Human Services Commission (HHSC) to “submit a quarterly report reflecting the activities and findings of the Data Analysis Unit” created by Government Code, Section 531.0082. The following report fulfills this requirement for the third quarter of State Fiscal Year 2019 (SFY19 Q3).

During SFY19 Q3, the Medicaid CHIP Data Analytics (MCDA) Unit completed 61 projects or milestones supporting the direction of the statute for MCDA to "improve contract management, detect data trends, and identify anomalies relating to service utilization, providers, payment methodologies, and compliance with requirements" in the state's Medicaid and CHIP programs. The status of major projects and activities, along with findings, is described in three sections of the report: 1) Monitoring MCO Contract Compliance, 2) Tracking Service Utilization and Related Data, and 3) Enhancing Data Infrastructure.

As the array of activities will illustrate, MCDA collaborates closely with many Medicaid and CHIP Services (MCS) divisions, including Policy and Program, Managed Care Compliance and Operations (MCCO), Medical Director’s Office, Operations Management, Quality Assurance, and Utilization Review (UR). Much coordination occurs through MCDA’s participation in committees for the following MCS SFY19 Initiatives: Network Adequacy and Access to Care Monitoring, Complaints Data Trending and Analysis, and Strengthening Clinical Oversight.

The 2018-19 General Appropriations Act, Senate Bill 1, 85th Legislature, Regular Session, 2017 (Article II, HHSC), Rider 33, requires “collaboration between the Medicaid and CHIP data analytics unit and the HHSC actuarial staff to investigate and analyze any anomalies in the expenditure data used to set rates and to ensure the expenditure data being used to set rates is sound. Any anomalies identified related to service utilization, providers, payment methodologies, and compliance with the requirements in Medicaid and CHIP shall be reported to the Office of the Inspector General for further review.” MCDA and Actuarial Analysis meet monthly, as do MCDA and the Office of the Inspector General (OIG), to exchange updates on respective analyses. As a result of these partnerships, trends observed by MCDA this past quarter and described in more detail in this report were used to inform rate setting briefings with the Executive Commissioner in May.
2. Monitoring MCO Contract Compliance

**Extract, Transform, and Load Automation**

MCDA is a key partner in HHSC’s efforts to increase the data-driven efficiency of monitoring managed care organization (MCO) contract compliance. Due to the original Extract, Transform, and Load (ETL) automation developed by MCDA, MCS has saved substantial staff time that would otherwise have been spent manually processing the thousands of reports MCOs submit in Excel format. The ETL has also facilitated MCDA’s handling of MCO deliverable data for purposes of responding to ad hoc data requests and creating data visualizations in the form of compliance dashboards.

While the quality of the data received from the MCOs has been improved by the ETL system of quality checks and feedback to the MCOs, the legacy system is inherently limited by the open nature of its file transfer protocol system. HHSC has begun the process of switching over to a newly developed portal (“TexConnect”) for MCO submissions. TexConnect will accept deliverables in text file formats that will be subject to front-end edits to check for proper data format and layout. MCDA is working with MCS to ensure early involvement in testing TexConnect, in a lead-up to designing, coding, testing, and implementing changes to the ETL process in order to accommodate the new portal process.

**Compliance Dashboards**

The goal of the MCDA compliance dashboards is to enhance contract oversight by trending MCOs’ compliance with standards required by MCO contracts and the Medicaid Uniform Managed Care Manual, such as claims adjudication timeliness and hotline call pick-up rate standards. The dashboards provide HHSC staff with access to data in a user-friendly, flexible, and efficient format. The compliance dashboards continue to be used to facilitate the determination of corrective action, including the issuance of liquidated damages which, in turn, are being tracked in a newly developed dedicated dashboard of their own. The new liquidated damages dashboard aggregates instances of non-compliance and associated damages. It allows contract management staff to easily identify trending non-compliance issues by subject, those MCOs receiving the most liquidated damages, and aggregated dollar amounts levied against said MCOs.

The compliance dashboard fed by the ETL database has been updated and revised to include all new data points through SFY19 Q2. Traffic to this particular dashboard
has exceeded that of all other previously published content on the Tableau server. The 'MCCO QPR Dashboard Q1 2019' had over 5,000 views from January through April 2019, validating the importance of this data visualization to program staff. The 'MCCO QPR Dashboard Q2 2019' has accrued over 1,000 views in the month of May 2019 alone. The dashboard includes compliance data at the detail level, with additional supporting data to enhance monitoring activities. Program staff use this dashboard as a tool to help determine the contract compliance of their assigned MCOs.

The executive compliance dashboard used to brief the State Medicaid Director at Managed Care Oversight Committee meetings is published to the server. It has been displayed in the last two Oversight Committee meetings and, due to positive feedback, will continue to be used moving forward. This dashboard conveys the overall health of each MCO and makes comparisons across programs and across the MCOs’ performance within each program.

MCDA additionally uses the executive dashboard for ad hoc data requests as appropriate. These custom views are typically embedded in a PowerPoint slide deck to visualize the MCO's performance and call out non-compliance issues. This quarter, MCDA provided four custom dashboard views for MCS to facilitate discussion of below-standard performance with a specific MCO.

**Claims Administration Contract Oversight**

This quarter, MCDA provided technical consultation to MCS Claims Administration Contract Oversight (CACO) on aspects of the current Texas Medicaid & Healthcare Partnership (TMHP) contract with Accenture. MCDA participated in an ongoing series of meetings with Accenture in which CACO follows up on internal annual reviews of key contract requirements (“Key Measures”). In these meetings, MCDA serves as technical advisor to CACO as the Process and Calculation methodology documents (contract components) for Key Measures are reviewed with Accenture. Separately, MCDA also advised on sampling questions in regard to the independent validation that CACO Performance Managers conduct on the Front-End Services Key Measure data and results reported monthly by Accenture.

**Clinician Administered Drugs Monitoring**

MCDA continues to produce several recurring reports to help MCS enhance MCO performance monitoring. One example is the quarterly Clinician Administered Drugs (CAD) report. Since January 2014, MCOs have been required to submit National Drug Codes for CADs along with associated Healthcare Common Procedure Coding.
Non-compliance with this requirement impacts the state’s ability to collect federal vendor drug rebates. On a quarterly basis, MCDA has provided an analysis of CAD encounters that are in or out of compliance by MCO, which has allowed contract staff to educate low performing health plans, resulting in widespread improvement. For the first time this quarter, MCCO and Vendor Drug are using the report to assess liquidated damages for non-compliance.
3. Tracking Service Utilization and Related Data

Service Utilization Dashboards
MCDA creates and maintains a library of dashboards displaying healthcare utilization by service topic. These dashboards are designed to simplify detection of trends and variations in the data. Examination of the dashboards leads to the identification of a range of anomalies, from billing issues to potential changes in service utilization levels or amount paid for services. The current update to the consolidated Service Utilization dashboard will be completed by the end of June 2019 and will cover the final six months of SFY18, including the following topics: dental; emergency department visits; inpatient stays; physical, occupational, and speech therapies; private duty nursing; personal care services; and durable medical equipment. In addition, behavioral health and related psychotropic medication dashboards will be added to the library, as well as Vendor Drug and Members with Special Health Care Needs.

Increasingly, the utilization dashboards are providing a self-service mechanism for MCS program and policy staff and beyond, which frees up MCDA staff to conduct more complex analyses. HHSC Actuarial Analysis reports that it is actively using the MCDA dashboards as an additional tool to validate data and check trends they hear about from MCOs or other stakeholders. Actuarial Analysis shares MCDA’s analyses with HHSC’s external actuaries to inform their recommendations on rates. For example, MCDA was quickly able to rule out a hypothesis that the increase in the amount paid for STAR Health Private Duty Nursing (PDN) services was related to a School Health and Related Services policy change. In addition, the HHSC Rate Analysis Division has made increasing use of the utilization dashboards to inform its work, becoming an important consumer of these information sources.

Ongoing Trend and Anomaly Detection
MCDA receives input from a broad array of internal and external stakeholders, including MCS leadership, regarding the service types on which to focus within each managed care product. In particular, MCDA receives direction from the Service Utilization Workgroup under the Strengthening Clinical Oversight managed care oversight initiative led by MCS. The workgroup provides a forum for a group of clinical, program, and policy experts to leverage Medicaid CHIP utilization data and guide MCDA in its charge to identify anomalies in service utilization and cost.
Once MCDA detects a potential anomaly, analysts take several steps to rule out a reasonable explanation for the data variation. First, data quality is reviewed. Additionally, MCDA developed and updates a chronological dashboard that denotes when significant Medicaid and CHIP program and policy changes have been implemented. This dashboard helps determine whether observed discontinuities in utilization data may be a result of such changes.

Another tool developed by MCDA to help investigate data variations is the Monthly Eligibility Report. The data in this report alerts the team to fluctuations in enrollment or Medicaid programs roll-outs which might impact service utilization. Enrollment data also provides denominators used in utilization rates, normalizing the rates to aid in direct comparisons between, for example, MCOs. The one-page eligibility report is frequently used by MCS and other HHSC staff for their own projects or to distribute externally as needed.

If, after further investigation, observed data variations are not explainable by data integrity issues or policy or program changes, MCDA presents its findings to the workgroup, which in turn provides further guidance on where to conduct deeper analysis. If findings may impact quality of care or cost to the state, leadership is briefed at a Managed Care Oversight Committee meeting. The following diagram shows the process flow for the review of service utilization data for trends and anomalies.
Examples of trends and anomalies analyzed within the past quarter include the following:

**Amount paid for Emergency Department (ED) services**

Responding to an observation from certain MCOs and HHSC Actuarial Analysis that the amount paid for ED services has been rising in the STAR program, MCDA conducted an extensive analysis of trends in service utilization levels, ED procedure codes, and average cost per client and service, across client characteristics, service delivery areas, and managed care organizations. MCDA was able to confirm the increase, then correlate it to cost per service rather than any notable increase in ED utilization rates. MCDA did not detect significant cost variation between MCOs or service delivery areas. Focusing on the common Evaluation and Management procedure codes used in ED billing, MCDA discovered that, over time, the distribution of ED billing appears to be shifting toward more complex and expensive Evaluation and Management codes. MCDA has been coordinating further analysis with the OIG, which has discovered related results. Together, MCDA and the OIG’s Fraud Analytics office have been in contact with several MCO data analysts to
determine potential root causes of the shift in billing. MCDA’s preliminary results have been shared with the Service Utilization Workgroup and MCS leadership.

**Amount paid for Private Duty Nursing (PDN) services**

In response to observed variations in the amount paid for PDN services in STAR Health and STAR Kids programs, particularly toward the end of SFY 2018, MCDA conducted a preliminary analysis of trends in PDN costs among STAR Health and STAR Kids clients from SFY 2013-2018, in collaboration with Actuarial Analysis. MCDA found only a very modest increase among STAR Kids clients, while identifying a steep increase in the amount paid for PDN among STAR Health clients. A more detailed examination of the latter cost increase revealed that, in STAR Health, units of service per client (rising in correlation with the increase in amount paid), rather than increased utilization rates (which trended downward), accounted for the increase in amount paid. Digging deeper, MCDA found that the increase in service units per client was largely accounted for by services provided by RNs, which are more costly, while services provided by LVNs remained relatively stable. Results were used to inform rate setting briefings with the Executive Commissioner and shared with the STAR Kids Managed Care Oversight Committee.

**Dental home preventive services and anesthesia services**

Under First Dental Home guidelines, clients ages 6 months to 35 months may receive up to 10 well-child dental visits, which comprise preventive care and parent education. The demonstration of the new dental dashboard to the Medicaid Dental Director sparked discussion of further analyses of potential trends of interest. As a result, MCDA is analyzing the number of visits currently provided under the Dental Home provision in order to detect under or overutilization by certain MCOs, providers, or in specific geographic locations. MCDA is also investigating the frequency of anesthesia being used among young clients, including the setting in which it is performed (office or hospital), to ensure the appropriateness of the procedure. MCDA plans to provide the Director with an update of the analyses by the end of next quarter. If variations are discovered, the results would be brought to the Service Utilization Workgroup and, if warranted, the Dental Oversight Committee.

**Physical, Occupational, and Speech Therapy Monitoring**

MCDA continues to closely monitor physical, occupational, and speech therapy utilization rates, especially among STAR Kids clients, after observing a decrease
from June-September 2017. The most recent data points available in the encounters continue to show that these rates have stabilized. Service utilization observations, in addition to provider enrollment observations, were included in the second Rider 57 report, published in March 2019. MCDA has already drafted sections of the third report, due in June, adding two new analyses: 1) Whether clients on provider wait lists for therapy services were able to access services from alternative providers, and 2) Trends in prior authorizations for speech therapy services.

**Utilization Review**

MCDA continues to help the UR Team conduct their annual reviews of STAR+PLUS clients receiving services under the STAR+PLUS Home and Community Based Services (HCBS) Waiver program. The purpose of these legislatively mandated reviews is to monitor the quality of the care delivered by MCOs. MCDA provides sampling consultation to ensure the reviews adequately represent the targeted populations.

As UR completes another round of annual site reviews of STAR+PLUS HCBS client services, MCDA is updating its own analysis of a sample of HCBS clients’ encounters. The goal is to ensure that HCBS clients are receiving the appropriate level of waiver services above the minimal state plan services. A previous analysis in 2016 revealed that significant numbers of clients did not receive services beyond a state plan service. The method for the new study is being updated to account for changes to the modifier codes providers are required to use for billing long-term services and supports.
4. Enhancing Data Infrastructure

**MCDA Platform**

The work MCDA conducts depends on a robust, reliable, and flexible data system. In conjunction with TMHP, MCDA developed a platform that allows analysts to access data stored at TMHP more quickly than the original process of pulling the data over an internet connection. The platform contains two servers, numerous software applications used by MCDA staff to perform analysis and reporting, and a Tableau server used by MCDA staff to produce dashboards. The platform houses other data produced by MCDA staff, such as Medicaid and CHIP eligibility data, MCO self-reported quality measures, and professional licensure data. MCDA regularly tests system upgrades, performs quality control, and collaborates with TMHP staff to detect and correct errors and address any system performance issues.

**Data Marts**

MCDA’s TMHP platform houses the Therapy and Behavioral Health (BH) Data Marts, designed to allow quick and detailed analysis of trends and variations. This quarter, MCDA added to its staff a Program Specialist with a strong background in behavioral health data who will specialize in analysis centered on the BH Data Mart. Not only does the BH Data Mart house behavioral health related services but it also includes non-behavioral health data to allow analysis of co-morbidities. Additionally, MCDA’s business plan for SFY20 calls for internal development of a third subject-specific Data Mart developed by MCDA staff based on MCS priorities.
5. Goals for Next Quarter

In the wake of the 86th Texas Legislative Session, MCDA stands ready to support the implementation of legislation signed into law. MCDA contributed to the analysis of 96 bills, identifying the potential impact of each bill on the work of the agency and, specifically, on the work of the unit. In SFY19 Q4, in addition to planning how to support the implementation of new direction from the legislature, MCDA will build on the work it is conducting on MCS’ key initiatives and other projects, including the following:

Prior Authorization and Denial Data Collection

The Prior Authorization subcommittee of the MCS Improving Clinical Oversight initiative is building on MCDA’s experience in the fall of 2018 creating a survey tool and process to collect prior authorization (PA) data. For that data request, MCDA collected, on a one-time basis, aggregated speech therapy and PDN PA data from STAR Kids and STAR Health MCOs. This summer MCDA will help the subcommittee finalize its data survey tool that is expanded to collect comprehensive data for all services requiring PA from MCOs delivering all managed care products. The project scope will include the development of systems to accept, validate, store and allow access to standardized PA data submitted by MCOs on a periodic basis, in contrast with the ad hoc basis by which PA data is currently collected. Goals of the project include more timely oversight and trend analysis, decreased administrative burden, and facilitated comparison of MCO PA processes.

Compliance Dashboards and ETL

As MCS moves toward a phase-in of the new, web-based portal for the submission of MCO deliverables, TexConnect (described above under the section on Monitoring MCO Contract Compliance), MCDA will work with MCS to transition the ETL and dashboard processes to accommodate this new methodology and ensure the continued timely reporting of MCO measures. In the future, MCDA will leverage the work done during this period, as more deliverables are transitioned to the flat file/portal delivery system. Also, in SFY19 Q4, MCDA will continue to enhance the MCS Quarterly Performance Report dashboard by adding new data points such as monthly hotline reporting and CHIP complaints submitted to MCS.
Provider Network Adequacy

MCDA will provide technical support to MCS as a more automated system is under development for the analysis and reporting of MCO performance against travel time and distance standards. Building on its experience with and knowledge of the current monitoring process, as well as on its expertise in data system development, MCDA is ready to partner with MCS as it determines business requirements for a new, more efficient approach.

Trend and Anomaly Detection

Ongoing meetings of the Service Utilization Workgroup are scheduled in SFY19 Q4 to facilitate collaboration on investigation of identified data variations and to make recommendations for elevation of high risk findings to the appropriate MCS Managed Care Oversight Committee. MCDA will collaborate with the Service Utilization Workgroup to determine a formal schedule for monitoring specified services by product (STAR, STAR Kids, STAR+PLUS, and Medicare-Medicaid Plan) and will begin to implement the schedule.

Service Utilization Dashboards

MCDA will complete the addition of BH data to the utilization dashboard for more immediate access to fulfill data requests. Also, all service utilization dashboards will be updated with the most recently available final data, covering the last six months of SFY18, with a target date for completion by the end of June 2019.

Enhancing Data Infrastructure

To leverage the usefulness of the MCDA Data Platform, MCDA will continue to train CADS staff outside of the MCDA unit on its use. Further, during SFY19 Q4 MCDA and other CADS staff will complete work to identify and prioritize subject areas for which maximum benefit will be achieved through the development of new data marts and to outline the essential elements to be included. MCDA will undertake the development and testing of a new data mart based on the priorities determined this quarter.