



**Medicaid CHIP Data
Analytics Unit
Quarterly Report of
Activities SFY20, Q2**

**As Required by
2020-21 General Appropriations
Act, House Bill 1, 86th Legislature,
Regular Session, 2019
(Article II HHSC, Rider 10)**

**Texas Health and Human Services
Commission**

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TEXAS
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Table of Contents

Table of Contents	ii
1. Introduction	1
2. Monitoring MCO Contract Compliance.....	2
Extract, Transform, and Load Automation	2
Compliance Dashboards	3
Claims Administration Contract Oversight	3
Clinician Administered Drugs Monitoring	3
Provider Network Adequacy	4
Utilization Review	5
Prior Authorization and Denial Data Collection	5
3. Tracking Service Utilization and Related Data	7
Service Utilization Dashboards	7
Ongoing Trend and Anomaly Detection.....	7
Physical, Occupational, and Speech Therapy Monitoring	11
4. Enhancing Data Infrastructure	12
MCDA Platform.....	12
Data Marts.....	12
5. Goals for Next Quarter	13
Prior Authorization and Denial Data Collection	13
Compliance Dashboards and ETL	13
Service Utilization Dashboards	13
Trend and Anomaly Detection	13
Enhancing Data Infrastructure	14

1. Introduction

The 2020-21 General Appropriations Act, House Bill 1, 86th Legislature, Regular Session, 2019 (Article II, Health and Human Services Commission, Rider 10) directs the Health and Human Services Commission (HHSC) to “report to the Legislative Budget Board on a quarterly basis the activities and findings of the Data Analysis Unit” created by Government Code, §531.0082. The following report fulfills this requirement for the second quarter of State Fiscal Year 2020 (SFY20 Q2).

During SFY20 Q2, the Medicaid CHIP Data Analytics (MCDA) Unit within the Center for Analytics and Decision Support (CADS) completed 47 projects or milestones supporting the direction of the Government Code to “...(1) improve contract management, (2) detect data trends, and (3) 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.

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 SFY20 Initiatives: Network Adequacy and Access to Care Monitoring, Complaints Data Trending and Analysis, and Strengthening Clinical Oversight.

Beyond collaboration with MCS, Rider 10 directs that “...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 the Office of the Inspector General (OIG) communicate monthly to exchange updates on respective analyses. In addition, while no longer legislatively mandated, MCDA and Actuarial Analysis continue to meet monthly, collaborating to investigate anomalies in expenditure data and to ensure the soundness of data used for rate setting.

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 staff time that would otherwise have been spent manually processing 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, the legacy Data Tracking System (DTS) lacks the quality checks and feedback loops of the ETL because of its open file transfer protocol. In order to improve the quality of MCO transmitted data, HHSC has begun the process of implementing a newly developed portal ("TexConnect") for MCO submissions. TexConnect accepts deliverables in text file formats that are subject to front-end review for proper data format and layout.

At this time, five of the seven MCO deliverables scheduled for transition have been switched from the legacy system to TexConnect. While maintaining the original ETL system for deliverables that have not yet transitioned, MCDA has implemented a second ETL system that utilizes Access, SQL, and Visual Basic to transform data received via TexConnect and load it onto the MCDA Oracle data platform.

Several of the deliverables which were reported at an aggregated level in the legacy system are now being collected at a detail level, which has allowed MCDA to do more thorough quality assurance. Data quality checks by MCDA have identified problems in certain MCO data coming through TexConnect. For example, each appeal should have a unique ID, but this requirement is not always being met. As another example, there are multiple instances where appeals listed as pending in one month do not show up in the next month's report, as should occur. Because MCO data received via the legacy system and MCO data received via TexConnect are combined in the production of MCDA's compliance dashboards, MCDA is working closely with MCS to ensure accurate reporting of MCO compliance measures.

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 compliance data in a user-friendly, flexible, and efficient format. The compliance dashboards are used to facilitate data-driven decisions concerning the need for corrective actions, including the issuance of liquidated damages. As the dashboards contain confidential agency data, they are for internal use only.

Two compliance dashboards were updated in the quarter. The Quality Performance Report (QPR) compliance dashboard has been updated and revised to include all new data points through SFY20 Q1. The dashboard includes compliance results at the detail level, with additional supporting details to enhance monitoring activities. Program staff use this dashboard as a tool to determine contract compliance of their assigned MCOs.

The executive compliance dashboard is used to inform MCS staff and leadership at Managed Care Oversight Committee meetings and is published to an internal server. This dashboard conveys the overall health of each MCO, makes comparisons across programs and across the MCOs' performances within each program, and is updated on a quarterly basis.

Claims Administration Contract Oversight

This quarter, MCDA provided ongoing 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 (P&C) methodology documents for Key Measures are reviewed with Accenture. The negotiated modifications to the P&C documents are incorporated into the claims administration contract by means of Minor Administrative Change (MAC) procedures.

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 provides an analysis of CAD encounter compliance by MCO, which allows contract staff to educate low performing health plans on proper coding. The percentage of invalid paid CAD encounters decreased from 16 percent in SFY16 Q4 to less than one percent in SFY19 Q2. The improved reporting translates into higher federal rebates collected by the state for these drugs, which increased 87% during this time from \$8M to \$15M. MCCO and Vendor Drug also use the report to assess liquidated damages for non-compliance.

Provider Network Adequacy

One of MCDA's high priority projects is serving as data experts on the Network Adequacy Steering Committee. The committee has worked intensively to identify the functional requirements of the forthcoming Business Intelligence (BI) tool funded as part of an exceptional item put forward by HHSC during the 86th Texas Legislative Session. The purpose of the BI tool is twofold. It will consolidate data from multiple areas to create a holistic view of factors impacting Medicaid provider network adequacy. The BI tool will also automate manual monitoring and reporting processes to ensure MCO compliance with state and federal network adequacy standards.

While the BI tool requirements are being developed, MCDA continues to provide a variety of analyses to support MCS leadership policy decisions, strengthen managed care provider networks, and improve oversight of managed care organizations' contract compliance related to provider network adequacy standards. Examples of analyses this quarter include:

- Provided the Texas Senate Health and Human Services Committee staff with teleservices utilization and expenditure trends over the last several years to help them evaluate teleservices' impact on access to care.
- Coordinated with Texas A&M University to provide the university with the information they need to carry out a cost savings and effectiveness study as directed by House Bill 1063, 86th Legislature, Regular Session, 2019.
- The MCDA Geographic information System (GIS) specialist created maps displaying the availability of prenatal care and hospitals for specific Medicaid populations.
- Conducted an analysis on the impact of the potential loss of certain providers on network adequacy.

- Updated the provider network dashboard, including provider type and open panel status, which is used by MCCO staff for monitoring and reporting purposes.
- MCDA helped several managed care organizations attempt to broaden their networks by providing lists of dentists and primary care physicians with the highest volume of services in their service delivery areas so they can recruit more broadly.

Utilization Review

MCDA continues to help the UR Team conduct their annual reviews of clients receiving services under the STAR+PLUS Home and Community Based Services (HCBS) program and the Medically Dependent Children Program (MDCP) waiver within the STAR Health and STAR Kids programs. The purpose of these legislatively mandated reviews is to monitor the appropriateness of care delivered by MCOs. MCDA provides sampling consultation to ensure the reviews adequately represent the targeted populations. In February, MCDA identified for UR the samples for the 2020 UR HCBS reviews. CADS MCDA consulted with UR to finalize a sampling plan for these reviews, aggregated the client data, and pulled required samples. The sampling plan allows for valid results at the MCO level for high need clients while incorporating an element of risk-based sampling based on a prior measure of MCO performance.

Prior Authorization and Denial Data Collection

In the summer of 2019, MCDA helped the Prior Authorization subcommittee of the MCS Improving Clinical Oversight initiative finalize a new data survey tool to collect comprehensive aggregated data for all services requiring prior authorization (PA) from MCOs delivering managed care products on a monthly basis. Prior to the development of this tool, MCO prior authorization data was not available to HHSC unless requested on an ad hoc basis. Obtaining the aggregated data will enhance contract oversight by allowing MCS and MCDA to track unusual trends over time and potential variations between MCO prior authorization processes. This quarter, MCDA began to process the first set of PA aggregated data deliverables from the Medicaid Managed Care Organizations (MCOs). MCDA identified problems with the data from a majority of the MCOs and participated in MCCO's calls with MCOs to discuss how to improve the data quality of their submissions. Data analysis is pending resubmissions by the MCOs.

Simultaneously, the Prior Authorization subcommittee has been developing the Change Order Request (COR) for the 2nd phase of the project, the Prior Authorization Member-Level Data Warehousing Project. The more granular data will allow MCDA to connect client level prior authorizations to actual services delivered as reported in the encounters.

3. Tracking Service Utilization and Related Data

Service Utilization Dashboards

MCDA creates and maintains a library of dashboards displaying healthcare utilization by service type. These dashboards are designed to simplify detection of trends and variations in the data. Examination of the dashboards leads to the identification of anomalies, from billing issues to changes in service utilization levels or amounts paid for services. Currently, dashboards are maintained for internal agency use on the following services: telemedicine, emergency department visits; inpatient stays; physical, occupational, and speech therapies; private duty nursing; personal care services; dental services, durable medical equipment, vendor drug, and, newly added, substance use disorder. In addition, an aggregated master utilization dashboard is published combining all these topics into one view. Behavioral health data was added to the master dashboard last quarter, as well, while a more elaborate dashboard for mental health is under development. The upcoming cycle of quarterly updates to the MCDA dashboard library will be completed by the end of April 2020 and will extend to data from the third quarter of SFY19. In addition, MCDA has a dedicated dashboard on psychotropic medications that will be refreshed annually, but that is not part of the master dashboard.

Ongoing Trend and Anomaly Detection

MCDA receives input from MCS leadership and program staff regarding the service types on which to focus within each managed care product. In particular, MCDA receives direction from the internal Service Utilization Workgroup under the Strengthening Clinical Oversight managed care 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.

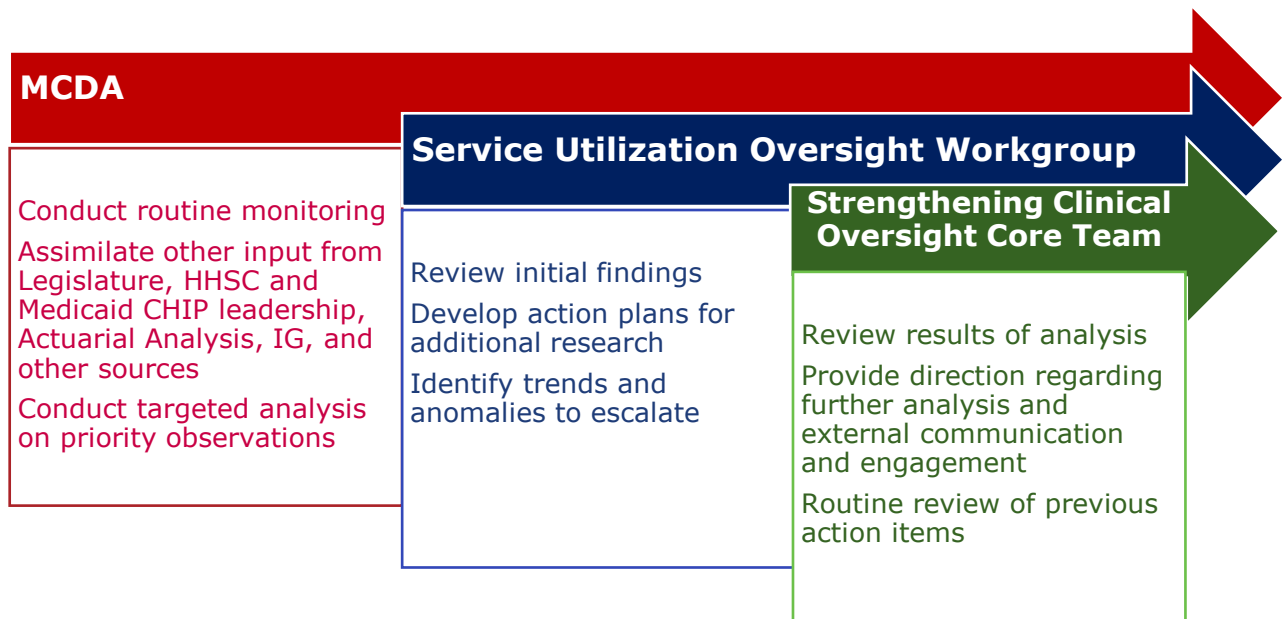
Once MCDA detects a potential anomaly, analysts take several steps to identify an explanation for the data variation. First, data quality is reviewed. Additionally, MCDA developed and updates a chronological dashboard that denotes when significant Medicaid and CHIP program and policy changes have been implemented. This dashboard helps determine whether observed irregularities in utilization data may be a result of such changes.

Another tool developed by MCDA to help investigate data variations is the Monthly Enrollment Report. The data in this report alerts the team to fluctuations in

enrollment or Medicaid program 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 enrollment report is distributed widely to MCS and other HHSC staff. Its use has resulted in efficiencies by replacing ad hoc data requests historically managed by CADS and HHSC Forecasting with a self-service alternative. Since the report is vetted by Forecasting before its release, its use also improves consistency in reporting and may be shared to external stakeholders.

If, after further investigation, observed data variations are not explainable by data integrity issues, policy or program changes, or predictable patterns such as seasonality, MCDA presents its findings to the Service Utilization workgroup, which in turn provides further guidance on where to conduct deeper analysis. If findings have the potential to impact quality of care or cost to the state, MCS leadership is briefed. The following diagram shows the process flow for the review of service utilization data for trends and anomalies.

Process Flow for Trends and Anomalies in Service Utilization Data



In a continuous improvement initiative designed to maximize the potential to identify important data variations, MCDA has refined its internal procedures for making quarterly updates to the key service utilization dashboards. Analysts have been assigned to acquire specific expertise in the various areas of service. With his or her subject matter expertise, the analyst can more readily interpret signals of significant variations in the data.

MCDA has expanded the capabilities of the dashboards to facilitate the detection of anomalies. Initially, the tool was designed to detect "Outliers" (i.e., data points outside the control limits) and "Long Runs" of seven or more consecutive data points on one side of the long-term average. This quarter, MCDA has added "Short Runs" to its detection tool (i.e., three of four consecutive values closer to a control limit than to the average value), which allows analysts to detect anomalies in a more timely fashion.

In this quarter, the initial round of signal detection on updated dashboards revealed 77 new anomalies in the service utilization dashboard data. Of note, anomalies are counted at the managed care program and time period level to allow for unique explanations driving the anomalies. As a result, the number of anomalies is inflated considering what is likely the same explanation for multiple anomalies. An example would be seasonality that impacts many programs within a specific service. Since not all programs are impacted and even those that are impacted exhibit slightly different seasonal patterns, the anomalies are counted and tracked separately.

MCDA staff convened to review the anomalies to identify data patterns that were explicable through such factors as policy changes and seasonality. Staff also rated the anomalies on the following factors to derive "Low," "Medium," and "High" priority classifications: Quality of Care, Access to Services, Fiscal Impact, Contract Compliance, High Profile, Data Quality, and Scope of Impact. Upon completion of this preliminary review, 66 new data signals remained unexplained and/or of potential high impact to the Medicaid program, sufficient to require wider consideration by policy and program staff. These signals appeared across the spectrum of Medicaid fee-for-service and managed care programs and among the array of service types.

In its February 2020 meeting, the Service Utilization Workgroup reviewed these findings, as well as those carried forward from the previous cycle, and prioritized which required more intensive investigation. Anomalies of highest interest were found in Durable Medical Equipment, Physical Therapy/Occupational Therapy/Speech Therapy, Private Duty Nursing, Personal Care Services, and Teleservices. MCDA briefed the OIG on these anomalies at the MCDA-OIG monthly

meeting and will brief the Strengthening Clinical Oversight Core Team on additional research into the anomalies at its next meeting in late March.

The following two tables break out anomalies identified in the past two quarterly analyses by program and by service type, as of 2/19/2020. Within each table, counts are further broken down by “closed” and “open,” indicating the current status of investigations into individual findings. An investigation is closed when the observation no longer requires research, due, for example, to a sufficient explanation for the variance.

Table 1: SFY19 Q2 Findings: by Program

Programs	Closed	Open	Total
Overall	10	18	28
CHIP	5	4	9
FFS	1	12	13
MMP	3	22	25
STAR	10	19	29
STAR Health	5	17	22
STAR Kids	14	23	37
STAR+PLUS	1	17	18
Total	49	132	181

Table 2: SFY19 Q2 Findings: by Service Type

Programs	Closed	Open	Total
BH	0	17	17
DME	4	23	27
ED	12	6	18
Inpatient	0	13	13
PCS	3	8	11
PDN	0	12	12
Teleservices	0	18	18
Therapy – OT	12	6	18
Therapy – PT	11	3	14
Therapy – ST	7	7	14
Vendor Drug	0	19	19

Programs	Closed	Open	Total
Total	49	132	181

Physical, Occupational, and Speech Therapy Monitoring

MCDA continues to closely monitor physical, occupational, and speech therapy utilization rates in compliance with Rider 15, General Appropriations Act, Article II, 86th Texas Legislative Session (formerly Rider 57). A decrease was detected in active providers (i.e., providers with a billed encounter) beginning in May 2016. This date corresponds to implementation of therapy policy changes related to documentation and prior authorization. The number of active providers decreased steadily from 2,473 in April 2016 to 1,739 in December 2017. Other events that occurred during that time period which may or may not have had additional impacts include: the STAR Kids program implementation in November 2016, reimbursement rate changes in December 2016, and the deadline for provider reenrollment in February 2017. In the months following December 2017, the number of active providers per month appears to have stabilized. For more information, the reader is referred to the [Quarterly Therapy Access Monitoring Report – December 2019](#).

MCDA prepared analyses on client service utilization, provider network adequacy, and services provided to clients while on wait lists for inclusion in the next Rider 15 report. The report is scheduled for release in March 2020. The CADS MCDA Director Presented to the STAR Kids Advisory Committee in December 2019.

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 enrollment data, MCO self-reported quality measures, professional licensure data, and the new Analytic Data Store (ADS, described under Data Marts in the following section). 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 Physical, Occupational, and Speech Therapy (PTOTST) and Behavioral Health (BH) Data Marts, designed to allow quick and detailed analysis of trends and variations. The PTOTST Data Mart contains the most recent seven years of data on therapy encounters, forming the basis for analysis and visualization of such variables as cost and utilization measures by factors such as year, MCO, Service Delivery Area, and Managed Care program. The current BH Data Mart, updated annually, houses behavioral health related services and non-behavioral health data to allow analysis of co-morbidities. In anticipation of development of a third subject-specific Data Mart based on MCS-directed priorities, MCDA is working to create a new "building block" of core enrollment data that will become part of any future Data Mart, regardless of subject.

This quarter, TMHP has been upgrading the tables upon which the data marts are built by developing the Analytical Data Store (ADS). The ADS is a 'Best Picture' view of the claim and encounter data, meaning that it contains only the most current version of a transaction. The ADS offers a cohesive blend of managed care and fee-for-service medical and pharmacy data allowing a holistic view of a provider or member at the time a service took place for a particular claim or encounter.

5. Goals for Next Quarter

In SFY20 Q3, 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

In the coming quarter MCDA will check the quality of the aggregated PA data that is resubmitted by the MCOs. When usable data is acquired, MCDA will begin to analyze and visualize it in a dashboard. This analysis will occur monthly until the design for the system for collecting client level PA data is finalized and implemented.

Compliance Dashboards and ETL

MCDA will leverage the work done during this quarter, as more deliverables are transitioned to the flat file/portal delivery system. The final two deliverables scheduled to be submitted by MCOs through TexConnect will be Out-of-Network Utilization data from SFY2020 Q2 and Provider Network and Capacity data as of March 1, 2020, both due to HHSC on March 31, 2020. MCDA will continue to conduct careful quality assurance on the incoming deliverables and resubmissions to ensure accurate measurement of MCO contract compliance.

Service Utilization Dashboards

In the coming quarter, all service utilization dashboards will be updated with the most recently available data, covering the third quarter of SFY19, with a target date for completion by the end of April 2020. Work will continue on the development of the mental health utilization dashboard.

Trend and Anomaly Detection

The third complete cycle of MCDA's new quarterly, control chart driven approach to detection of data variation signals will be implemented, culminating in a meeting in May 2020 of the Service Utilization Workgroup. Specific findings from the quarter's analysis will be discussed by the workgroup and decisions made regarding escalation of selected findings. Also in the coming quarter, MCDA staff will conduct follow-up investigations recommended by the workgroup in its February meeting.

Enhancing Data Infrastructure

In late March, TMHP will train MCDA and other CADS staff on how to query the Analytical Data Store (ADS) and downstream data marts – Behavioral Health and Therapy. Leveraging the ADS, during SFY20 Q2 MCDA will target completion of a core enrollment building block and begin construction of a core encounters building block for creating in-house data marts.

At the request of the State Medicaid Managed Care Advisory Committee, the MCDA Director will make a presentation to the committee on the Behavioral Health Data Mart in March. The presentation will include a description of the types of co-morbidity analyses enabled given that the data include both behavioral health and non-behavioral health services received by clients with a behavioral health diagnosis or service.