Medicaid CHIP Data Analytics Unit Quarterly Report of Activities State Fiscal Year 2021, Quarter 3

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

July 2021
# Table of Contents

**Introduction** ..................................................................................................................... 1

**Monitoring MCO Contract Compliance** ............................................................................. 3
  - Extract, Transform, and Load Automation ................................................................. 3
  - Compliance Dashboards ............................................................................................... 3
  - Complaints Dashboards ............................................................................................... 3
  - Provider Network Adequacy ........................................................................................ 4
  - Utilization Review ....................................................................................................... 4
  - Prior Authorization Data Collection .......................................................................... 6
  - Service Utilization Dashboards ................................................................................... 7
  - Ongoing Trend and Anomaly Detection ....................................................................... 7
  - COVID-19 Dashboards and Studies .......................................................................... 13
  - Physical, Occupational, and Speech Therapy Monitoring ......................................... 14
  - Behavioral Health ...................................................................................................... 15
  - Enrollment .................................................................................................................. 16

**Enhancing Data Infrastructure** ......................................................................................... 17
  - MCDA Platform .......................................................................................................... 17
  - Data Marts ................................................................................................................... 17

**Goals for Next Quarter** .................................................................................................... 19
  - COVID-19 Analysis .................................................................................................... 19
  - Complaints Dashboards .............................................................................................. 19
  - Prior Authorization Data Collection and Dashboard .................................................... 19
  - Compliance Dashboards and ETL ............................................................................... 19
  - Service Utilization Dashboards .................................................................................. 20
  - Trend and Anomaly Detection .................................................................................... 20
  - ADS ............................................................................................................................ 20
  - Enhancing Data Infrastructure .................................................................................... 20

**List of Acronyms** .............................................................................................................. 21
The 2020-21 General Appropriations Act, House Bill (HB) 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 third quarter of State Fiscal Year 2021 (SFY21 Q3).

During SFY21 Q3, the Medicaid CHIP Data Analytics (MCDA) Unit within the Center for Analytics and Decision Support (CADS) completed 52 projects 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. The Service Utilization section contains an update on the unit’s involvement in the agency’s COVID-19 response, including the posting of dedicated COVID-19 testing and diagnosis related dashboards, the integration of demographic variables into existing service utilization dashboards, and the unit’s contributions to an ongoing study of COVID-19 impacts on vulnerable populations.

MCDA collaborates closely with many units within the Medicaid and CHIP Services (MCS) Division. At the most recent quarterly Service Utilization Workgroup meeting, where MCDA presents its findings of service utilization trends and anomalies, 23 MCS staff members participated. Units represented included the Medical Director’s Office, Policy and Program, Operations Management, Quality Assurance, and Utilization Review (UR). Several Actuarial Analysis staff also attended the Service Utilization Workgroup meeting. MCDA continues to meet with the Director of Actuarial Analysis on a monthly basis to exchange observations of data variations of interest. This quarter, in response to an inquiry by the Executive Commissioner (EC), MCDA and Actuarial Analysis corroborated findings of increasing behavioral health costs per member in the STAR Health program, which was reported back to the EC.

In addition, 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. For example, in SFY21 Q3, MCDA alerted the OIG to a wide disparity in the amounts paid to certain provider types compared with other provider types delivering the same category of services to clients with similar medical conditions. The OIG is analyzing the issue further.
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 Extract, Transform, and Load (ETL) automation developed by MCDA, MCS has been able to redirect Managed Care Compliance & Operations (MCCO) staff resources that would otherwise have been spent manually processing thousands of reports MCOs formerly submitted in Excel format. The ETL processes have 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.

Several of the deliverables that MCOs once reported at an aggregated level via a legacy computer system are now being collected at a more detailed level through TexConnect, a web-based portal. This change has allowed MCDA to conduct more thorough quality assurance. Data quality checks by MCDA have identified problems in certain MCO data, such as pending appeals not being carried over into the next monthly report or reporting duplicate ID numbers. MCDA provides MCCO staff with lists of MCO reporting errors and helps them build tools and strategies to address these errors in time for MCOs to resubmit corrected data.

The TexConnect portal currently lacks the functionality to allow MCCO staff to download complete sets of submitted data at the MCO level. In SFY21 Q3, MCDA has provided MCCO staff with complete data extracts for quality review of two of the deliverables (network adequacy and provider termination).

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. In SFY21 Q3, the
Quality Performance Report (QPR) compliance dashboard was updated and revised to include all new data points through SFY21 Q2.

Complaints Dashboards

As a result of findings from the report responsive to Rider 61 of the 2018-2019 General Appropriations Act, HB 1, 85th Legislature, Regular Session, 2017 (Article II, HHSC), on Medicaid Managed Care Oversight, MCS initiated a project to revise the managed care member complaints process to streamline intake and tracking, more effectively leverage complaints data to identify risks, and ultimately improve quality of services. In the 86th Legislative Session, Regular Session, HB 4533 included related requirements, including making aggregated data available to the legislature and public.

Two complaints dashboards will be published quarterly on the HHSC website: one for initial contact complaints, which are complaints that were resolved within one business day, and one for all other complaints. The dashboards display complaints compiled from both MCOs/DMOs and HHSC. They include both member and provider complaints data. In SFY21 Q3, MCDA compiled the SFY21 Q1 data for the dashboard.

Additionally, MCS plans to begin to incorporate the complaints data into the MCO report cards produced by the External Quality Review Organization (EQRO). To facilitate this addition, MCDA will be submitting complaint level data on a recurring basis to the state’s EQRO, the Institute for Child Health Policy at the University of Florida.

Provider Network Adequacy

Ensuring provider network adequacy is a high priority for the agency and Medicaid and CHIP program stakeholders. Meeting this goal can be complicated by systemic issues, such as key provider shortages across the state, the administrative complexity of the Medicaid program, and low provider reimbursement rates relative to the private marketplace. MCDA supports MCS’s effort to continually evaluate the effectiveness of its provider networks, focusing on the Medicaid managed care health plans. To this end, MCDA participates in bi-weekly meetings with the MCCO Network Adequacy team to develop network adequacy dashboards. Below are some of the activities related to monitoring network adequacy in the past quarter.
HHSC requires MCO provider networks to comply with distance and travel time standards in accordance with managed care contract requirements. This quarter, MCDA updated the Distance Performance dashboard through SFY21 Q3. This dashboard presents data on compliance with HHSC distance performance standards by MCO, county, and provider type.

MCDA measures travel time between clients and providers using geospatial mapping analysis. In SFY21 Q3, MCDA completed its preliminary travel time analysis of 26 provider types currently tracked by the MCCO Network Adequacy team for Medicaid and CHIP programs. These include Primary, Specialty, Long Term Services and Support, Pharmacy, Dental, and Behavioral Health Providers. Substance Use Disorder (SUD) providers were added to the analysis for SFY21 Q3. Using updated technology and methods, MCDA was able to reduce processing time for the analysis from multiple months to just weeks, freeing up staff resources to provide additional analyses on COVID-19-related requests from leadership. MCDA also began to develop a new Travel Time Performance dashboard this quarter to display the travel time performance standards by MCO, county, and provider type.

Following a transition of provider termination data to TexConnect, MCDA created a new Provider Terminations Report dashboard that includes SFY21 Q1 and Q2 data. This dashboard presents counts of providers terminated, reason for termination, and the number of members impacted, allowing MCCO to filter by client program and provider types and specialties.

**Teleservices**

The use of teleservices is a potential solution for improving access to care in underserved areas of the state and has alleviated barriers to office-based care during the COVID-19 pandemic for some clients. Teleservices utilization has been the subject of several recent analyses conducted by MCDA. With the passage of HB 4, 87th Legislature, Regular Session, which will expand teleservices coverage, MCDA will continue to closely monitor trends in the use of this mode of service delivery.

- MCDA updated the internal Teleservices Quarterly Dashboard through November 2020. This dashboard presents telehealth, telemedicine, and telemonitoring costs, claims, clients, and providers, allowing filtering by such factors as client age and program.
- MCDA provided updated telehealth and telemedicine utilization data by race/ethnicity, urban/rural, county, diagnosis, procedure, provider, and
month for the Delivery System Reform Incentive Payment Program Milestone 9 Project that analyzes teleservices for rural areas.

- MCDA analyzed the share of behavioral health care delivered via teleservices from SFY16 to SFY20 to show its increased usage over time and the impact that COVID-19 has had on the benefit.

- MCDA investigated the percent change in teleservices the 6 months before the COVID-19 pandemic and the first 6 months after the onset of the pandemic for each Medicaid program and by age in preparation for a Senate Health and Human Services Committee meeting.

**Utilization Review**

MCDA continues to help the UR Team prepare for 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 to these vulnerable populations. MCDA provides sampling consultation to ensure the reviews adequately represent the targeted populations. In SFY21 Q3, MCDA pulled the SFY21 MDCP sample and the associated client data and submitted the files to UR under a tight timeline to help them maximize their review timeframe.

**Prior Authorization Data Collection**

Access to prior authorization data from the MCOs enhances contract oversight by allowing MCS and MCDA to track unusual trends over time and potential variations between MCO prior authorization processes. For the first phase of the agency’s effort to access the data, since September 2020, the MCOs have been required to submit aggregated prior authorization files on a monthly basis. MCDA developed an ETL process to manage the data and identify quality issues, allowing UR, who manages the project, to reach out to the MCOs to have them correct the errors and resubmit the deliverables. To monitor the trends, MCDA developed and refreshes an internal dashboard for UR which displays MCO prior authorization approval and denial rates by service type. The dataset and dashboard are refreshed monthly; the most recent completed month of data is March 2021.

In SFY20, the Prior Authorization subcommittee developed the Change Order Request for the second phase of the project, the Prior Authorization Member-Level Data Warehousing Project. Phase 2 will focus on collecting data at the level of the
individual transaction, rather than aggregated data. The more granular data will allow MCDA to connect client level prior authorizations to actual services delivered as reported in the encounters.

In SFY21 Q3, HHSC continued to coordinate with Texas Medicaid & Healthcare Partnership (TMHP) on the development of the project, participating in meetings to finalize which variables to include in the new Member-Level Data Warehouse.

**Service Utilization Dashboards**

MCDA creates and maintains a comprehensive service utilization dashboard displaying healthcare utilization by multiple service types, broken out by Medicaid and CHIP program, MCO, age group, and Service Delivery Area (SDA). The dashboard features multiple measures, including amounts paid, utilization rates, and number of claims. Currently, the dashboard includes the following services: telemedicine/telehealth; telemonitoring; emergency department (ED) visits; inpatient stays; physical therapy (PT), occupational therapy (OT), and speech therapy (ST); private duty nursing (PDN); personal care services (PCS); durable medical equipment (DME); DME prescriptions; vendor drug program (VDP); mental health (MH); SUD; and well-child visits. During the third quarter of SFY21, the dashboard was updated to include finalized data through SFY20 Q3 and preliminary data through SFY21 Q1.

Additionally, at the request of the Service Utilization Workgroup, MCDA created new dashboards displaying DME data by categories, including Incontinence Supplies, Nutrition, Oxygen and Related Respiratory Equipment, Wheelchairs, and others. The more detailed view will allow MCDA and the Service Utilization Workgroup members to identify which types of DME supplies are driving certain trends.

**Ongoing Trend and Anomaly Detection**

MCDA continues to refine its internal procedures for making and analyzing quarterly updates to the key service utilization dashboards. Analysts have been designated to acquire expertise in specific areas of service. With focused subject matter expertise, the analyst can more readily interpret signals of significant variations in the data. Detection of three types of signals has been automated: (1) “Outliers” (data points outside the control limits), (2) “Long Runs” of seven or more consecutive data points on one side of the long-term average, and (3) “Short Runs” (three of four consecutive values closer to a control limit than to the average value). See Figure 1 below for an example.
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 is used to help determine whether observed irregularities in utilization data may be a result of such program or policy changes.

MCDA staff convenes to review the anomalies to identify data patterns that are explicable through such factors as policy changes and seasonality. Staff also rate 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.

MCDA presents its highest priority findings to the Service Utilization Workgroup, a committee of subject matter experts from across Medicaid and CHIP Services, such as policy and program divisions, and other areas in HHSC, including Actuarial Analysis. The team asks the workgroup members to offer ideas for what is driving the anomaly and to provide direction on next steps, including:

1. close the anomaly since it is directly related to a policy change or other known event and aligns with expected trends,
2. continue to monitor the anomaly since the reason for the trend is unclear and possibly of concern,
3. investigate the anomaly further based on a theory about what may be driving it, or
4. elevate the anomaly to leadership based on its potential to significantly impact quality of care or cost to the state.

Any elevated anomalies requiring MCS leadership attention are presented at the Managed Care Oversight Coordination meetings, a forum where information about Medicaid and CHIP program performance is exchanged between leadership in all areas of the Medicaid and CHIP Services department and related HHSC divisions. If an urgent anomaly requires immediate attention between meetings, MCDA reaches out to Managed Care Oversight Coordination meeting coordinators to request a special briefing.
Figure 1: Sample Screen Shot of Anomaly Detection Dashboard with Short Run Service Utilization Monitoring During COVID-19

In the third quarter of SFY21, 104 new anomalies related to the utilization rate per 1,000 members or the amount paid per client were detected in the service utilization dashboard data. As described above, before the pandemic, MCDA would present the highest priority of these anomalies to the Service Utilization Workgroup to determine what might be driving the data variations. However, for SFY20 Q3 data, MCDA needed to adjust its standard anomaly detection presentation due to the onset of the COVID-19 pandemic in March 2020.

COVID-19 impacted service utilization rates in several ways. First and foremost, the Public Health Emergency (PHE) resulted in fewer people, including Medicaid clients, receiving in-person health services. Therefore, the obvious downward trend for most services did not need to be presented to the Service Utilization Workgroup for feedback. While MCDA continued to log anomalies for Q3, for consistency in its monitoring activities, analysts focused on how much impact the PHE had on specific services and how well each service appears to be rebounding after the initial decline. Observations were shared with the workgroup, who were asked to weigh in on possible reasons for the varied impacts.
Other PHE-related and non PHE-related policy changes were considered in the analyses. For example, policies to expand telehealth and telemedicine mitigated the PHE’s negative impact, by offering opportunities for clients to access more types of services safely from home.

Additionally, HHSC extended enrollment for clients due for renewals during the emergency period. The economic downturn due to the PHE also increased Medicaid caseloads. Therefore, the downturn in utilization rates may not only be explained by a decrease in the number of clients utilizing the services but also by the relative increase in enrolled clients.

Another impact to client enrollment, aside from the PHE, was that the Healthy Texas Women (HTW) program returned to Medicaid in February 2020, increasing the fee-for-service (FFS) caseload by almost 300,000 members or over 50 percent.

High level observations shared with the Service Utilization Workgroup are included below. Service utilization rates are the most common measure reported. These rates indicate the number of distinct clients who received a service per 1,000 enrolled clients.

Since the pandemic and subsequent implementation of containment measures occurred mid-March 2020, comparisons are made from February to April. Utilization rates are calculated based on clients rounded to the nearest whole numbers, except for SUD, PDN, and telemonitoring, where the numbers are too small to round. Observations about trends after SFY20 Q3, i.e. June 2020-November 2020, are based on “preliminary” data because encounters are not considered complete until eight months after the services were delivered. This reporting lag provides time for providers and MCOs to submit and adjudicate the claims. Therefore, these more recent observations are made to provide context about the aftermath of the pandemic’s impact, but the actual figures are subject to change.

- ED service utilization rates decreased sharply, from around 49 clients per 1,000 in February 2020 to around 20 clients per 1,000 in April 2020 (~59 percent decrease). Part of this decline is due to seasonality, with a peak in ED utilization generally occurring in January and a trough in June. However, this decrease is more pronounced than in past years. A decrease in the FFS utilization rate began pre-pandemic, in February 2020, corresponding to the incorporation of the HTW program into Medicaid. This sudden influx of enrolled FFS clients may have at least temporarily decreased the utilization rate more than usual. Preliminary data through November 2020 indicate that
ED utilization rates have stabilized but are not close to the pre-pandemic period. The seasonal peaks and troughs typically seen in ED utilization have also not reemerged.

- Inpatient service utilization rates decreased from around 12 clients per 1,000 in February 2020 to around 10 clients per 1,000 in April 2020 (~17 percent decrease). Signs of the impact of seasonality and HTW enrollment seen in ED services pre-pandemic are also present in inpatient services. Preliminary data through November 2020 suggest that the utilization rates for the STAR Kids and STAR+PLUS programs have rebounded slightly, although not to their pre-pandemic levels. Other programs have seen a continued downward trajectory, based on preliminary data.

- Well-child service utilization for clients less than 21 years old decreased sharply during the initial stages of the pandemic, from around 86 clients per 1,000 in February 2020 to around 46 clients per 1,000 in April 2020 (~47 percent decrease). Preliminary data indicate that well-child service utilization rates seem to have gradually rebounded after April 2020 but were still not back to pre-pandemic levels. The necessary nature of well child visits for vaccinations and school physicals is likely responsible for the uptick in the late summer months.

- A steep drop in vendor drug utilization was observed during the initial stages of the PHE, from around 220 clients per 1,000 in February 2020 to around 151 clients per 1,000 in April 2020 (~31 percent decrease). CHIP, STAR, STAR Health and STAR Kids showed more substantial declines than STAR+PLUS and MMP. According to preliminary data through November 2020, utilization rates have not rebounded. Subject matter experts in the workgroup proposed that rates fell at least partially due to a COVID-19 related policy change that authorized pharmacists to dispense 90-day prescription supplies instead of only 30-day supplies. Further investigation will be conducted to evaluate this theory.

- Speech therapy utilization rates for clients less than 21 years of age decreased from around 16 clients per 1,000 in February 2020 to around 12 clients per 1,000 in April 2020 (~25 percent decrease). Similarly, physical therapy utilization rates for the same age group and time frame dropped from around six clients to four clients per 1,000 (~33 percent decrease) and occupational therapy utilization rates dropped from around eight clients to six
clients per 1,000 (~25 percent decrease).¹ By August 2020, however, preliminary data indicate that all three types of therapy utilization have rebounded above the long-term mean. Further research on the relatively quick recovery of therapy services will be completed, but subject matter experts proposed that an increase in using teleservices for these services may have played a role.

- Mental health service utilization rates decreased from around 27 clients per 1,000 in February 2020 to around 23 clients per 1,000 in April 2020 (~15 percent decrease). Preliminary data through November 2020 indicate that while the utilization rates seem to further gradually decline, the average number of monthly clients with services experienced a modest rebound, with a rise in the total number of clients in the late spring and early summer. This trend could suggest that some of the gradual decline in utilization may be due to increased client enrollment. Meanwhile, mental health services delivered through telehealth and telemedicine increased sharply, from 2-3 percent of clients receiving one or more teleservices in February 2020 to over 60 percent of clients receiving one or more teleservices by April 2020.

- From February 2020 to April 2020, SUD services decreased slightly from 0.9 clients per 1,000 to 0.8 clients per 1,000 (~11 percent decrease). Preliminary data through November 2020 indicate that the average monthly number of clients served rebounded to pre-PHE levels, with a rise in the total number of clients in the late spring and early summer even increasing above average. The proportion of SUD services delivered through telehealth and telemedicine increased from virtually no clients receiving teleservices in February 2020 to over 20 percent of clients receiving one or more teleservices by April 2020.

- COVID-19 seemed to have a modest impact on PDN utilization rates. Among members less than 21 years old, utilization rates dipped from around 1.9 per 1,000 in February 2020 to around 1.7 per 1,000 in April (~11 percent decrease). Similarly, average number of clients served per month showed only a temporary decrease, while total costs and claims/encounters did not change course at all. The relatively small impact of the PHE is possibly due to the essential nature of the service for the population who utilize it. Additionally, people who turned 21 on or after March 1, 2020 were allowed to

¹ The service utilization percent changes cited in this section are different from those cited from the Rider 15 report in the Physical, Occupational, and Speech Therapy Monitoring section in this report because the reports compare different months. However, the overall picture described is the same, i.e. an initial decline in service utilization rates, followed by a rebound.
stay in their programs and continue getting their normal array of services, when they would have aged out pre-PHE, possibly contributing to the continuously high utilization rate of this service.

- COVID-19 had a negligible effect on the level of PCS service utilization provided to persons under age 21. Utilization per 1,000 for this age group decreased slightly from around 39 clients per 1,000 in February 2020 to around 37 clients per 1,000 in April 2020 (~5 percent decrease). Preliminary rates through November 2020 hover around 45 clients per 1,000 and may increase slightly as encountering continue to be processed. The monthly average client utilization decrease was barely perceptible and quickly rebounded, even above pre-PHE levels.

- While utilization across the spectrum of services decreased, the proportion of services delivered through telehealth and telemedicine increased sharply, both in terms of utilization rates and costs per client during the PHE. As members avoided in-person care, teleservices became the substitute when possible. Monthly clients using telehealth/telemedicine across all programs increased from about 18,000 in February 2020 to about 400,000 in April 2020 (representing nearly 1 in 10 clients), plateauing above 300,000 clients per month as of November 2020. The rate of clients utilizing teleservices varied by program, SDA, and MCO, with about 1 in 20 clients in CHIP utilizing teleservices, up to more than 3 in 10 STAR Health clients.

- Like telehealth and telemedicine services, telemonitoring experienced an uptick in utilization during the COVID-19 public health emergency. However, because its application is limited to certain diseases (i.e. hypertension and diabetes), increased utilization was not nearly as widespread as telehealth and telemedicine. The utilization rate increased from 1.9 per 1,000 in February 2020 to 2.2 per 1,000 in April (~16 percent). Looking at the preliminary data through November 2020, the monthly utilization rate plateaus around 2 clients per 1,000.

**COVID-19 Dashboards and Studies**

Since January 2021, MCDA has been posting external dashboards displaying the numbers and rates of Medicaid and CHIP clients receiving COVID-19 tests or receiving a service with a diagnosis of COVID-19, including emergency department visits and inpatient stays. The dashboards are updated monthly. In SFY21 Q3, MCDA refreshed the dashboards with data through January 2021.
MCDA continues to assist with HHSC’s study of the impact of COVID-19 on vulnerable Texans by participating in research planning and analysis and by adding demographics to its service utilization dashboards to allow for comparison of service utilization patterns across various client populations. By the end of SFY21 Q3, MCDA had added demographics to the ED, inpatient, well-child, and teleservices dashboards to help guide the next phase of the research.

In SFY21 Q3, MCDA also completed a preliminary investigation aimed to identify disparities in geographic accessibility to COVID-19 Mobile Testing centers scheduled between April 2020 and May 2021. This study explored distribution of and demographic factors describing Medicaid clients at sub-zip code levels. MCDA measured both temporal availability of testing sites and travel time between individual clients and site locations to derive an accessibility metric. Then MCDA identified geographic locations where gaps in accessibility positively correlated with density of high-risk Medicaid clients using risk metrics from COVID-19 survival analyses published in a scientific journal. These accessibility results are being compared to geographic patterns in actual utilization rates of COVID-19 testing to understand the role that distance, and accessibility may have played in service utilization. By identifying geographic differences in client behavior (willingness to travel and service utilization) and linking those differences to social determinants of health, these analytical techniques may be used for assessing the appropriateness of distance metrics in provider adequacy more broadly.

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

MCDA continues to closely monitor physical, occupational, and speech therapy utilization rates in compliance with Rider 15 of the 2020–21 General Appropriations Act, HB 1, 86th Legislature, Regular Session, 2019 (Article II, HHSC). MCDA prepared analyses on client service utilization, provider network adequacy, and services provided to clients while on wait lists, for inclusion in the June 2021 Rider 15 report.

Highlights of the report include the following:

- The PHE temporarily decreased the rate at which children receive a therapy service in FY 2020. From January to March 2020, the physical therapy utilization rate dropped 44 percent. Speech therapy and occupational therapy utilization rates both fell more than 30 percent. The decrease occurred across
the STAR, STAR Health and STAR Kids programs. However, from March 2020 to September 2020, all therapy utilization rates rebounded more than 30 percent, making up much of the reduction observed at the beginning of the PHE.²

- The COVID-19 public health emergency (PHE) caused about a 13 percent drop in active providers from February to April 2020. However, by September 2020, the number of active providers rebounded above their February 2020 levels. Generally, over time, variations in the overall trend for active providers reflect changing participation by independent therapists.

- HHSC analyzed and reviewed therapy encounters for 117 of the 121 clients reported on a waiting list in June, July and August 2020. Within three months, 71 (61 percent) of these members received a therapy service.

For more information, the reader is referred to the report: (https://www.hhs.texas.gov/sites/default/files/documents/laws-regulations/reports-presentations/2021/quarterly-therapy-access-monitoring-june-2021.pdf)

**Behavioral Health**

In SFY21 Q3, MCDA began revamping its dashboard on psychotropic medications to focus on the information most commonly requested by MCS leadership. The dashboard will feature best practice parameters, including use of polypharmacy, first developed to monitor psychotropic medication use among foster care children due to concerns over overprescribing. Since 2004, HHSC has updated these measures annually in the Use of Psychotropic Medications for Children in Texas Foster Care report. The most recent report, for SFY19, can be found at (https://hhs.texas.gov/sites/default/files/documents/laws-regulations/reports-presentations/2021/psychotropic-meds-tx-foster-care-fy2002-2019.pdf)

This quarter, MCDA conducted a related analysis on diagnoses, behavioral health services, and psychotropic medication use among teenaged clients in foster care, who are served in the STAR Health program, compared with teens in other Medicaid programs. The key finding was that teens in foster care have higher rates of mental health diagnoses and more severe diagnoses than the other teens, which is line

---

² The service utilization percent changes cited in Rider 15 are different from those cited in the Service Utilization Monitoring During COVID-19 section in this report because the reports compare different months. However, the overall trend described is the same, i.e. an initial decline in service utilization rates, followed by a rebound.
with what is reported by other states. Additionally, among teens with mental health diagnoses, mental health service rates for children in STAR Health were roughly comparable to teens in other Texas Medicaid programs, with foster care teens receiving some medications and some mental health services at higher rates than their counterparts in other Medicaid programs.

**Enrollment**

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 rollouts which might impact service utilization. Enrollment data also provides the denominators used in utilization rates, which normalizes 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. Because the report is vetted by Forecasting before its release, its use also improves consistency in reporting. MCDA is currently developing a corresponding interactive dashboard to provide staff with a self-service platform to filter for the data needed without requiring a special ad hoc request from CADS or Forecasting.
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 Analytical 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. For instance, using the BH Mart, analysts have explored differences in the behavioral health diagnoses and services by children receiving psychotropic medications in STAR, STAR Health, and STAR Kids.

The ADS is a 'Best Picture' view of the claims and encounter data, meaning that it contains only the most current version of a transaction. 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. The ADS has become the preferred source for blended claims/encounters data and is accessible to MCDA and other CADS teams via the Data Analytics Platform (DAP).
In SFY21 Q3, MCDA and TMHP began collaborating on enhancements to ADS to simplify analytic queries, as well as ensure consistency in reporting. So far, information on clinician administered drugs has been added, an indicator of whether a service was provided via teleservices, and an age calculation which align with eligibility policies have all been added to the database. The change in age calculation, provided by MCDA, results in a more consistently precise age than TMHP’s previous calculation.

Also, of note, the TMASP server, which houses the Oracle database system containing the ADS data, therapy and behavioral health data marts, along with various MCDA datasets, was moved from TMHP to the Austin Data Center in May 2021. The move required some minor technical changes to the connection information to reach the server. MCDA staff were able to link to the server in its new location the morning following the move.
Goals for Next Quarter

In SFY21 Q4, MCDA will build on the work it is conducting on MCS key initiatives and other projects, including the following:

**COVID-19 Analysis**

The COVID-19 testing and diagnosis dashboards will continue to be refreshed on a recurring basis. MCDA will also continue to assist with the analysis and writing of the COVID-19 study (being led by a different team within the Office of Data, Analytics, and Performance (formerly the Office of Performance) on the impact of COVID-19 on vulnerable Texans, including those who receive services through the Medicaid program. MCDA will also continue to enhance the service utilization dashboards to monitor the impact of COVID-19 on service utilization, extending the incorporation of demographic data into additional dashboards, including BH, PTOTST, PDN, and PCS. MCDA will begin to use the enhanced dashboards (including demographics) as the basis for quarterly anomaly detection. Resulting observations will be communicated to another CADS unit as a guide to further research.

**Complaints Dashboards**

HB 4533 requires HHSC to make aggregated complaint data available to the legislature and public. MCDA will continue to clean and aggregate data from the three sources of complaints and provide complaint-level data files to the External Quality Review Organization to begin to incorporate into the MCO report cards.

**Prior Authorization Data Collection and Dashboard**

In the coming quarter MCDA will continue to perform ETL on the MCO deliverables and refresh the new PA dashboard with more recent data. This refresh process will occur on a monthly schedule until the design for the system for collecting client level PA data is finalized and implemented.

**Compliance Dashboards and ETL**

MCDA will continue to conduct careful quality assurance on the incoming deliverables and any resubmissions to ensure accurate measurement of MCO programs.
contract compliance. Also, 30-day and 45-day deliverable data refreshes for SFY21 Q3 will be conducted.

**Service Utilization Dashboards**

In the coming quarter, all service utilization dashboards will be updated with the most recently available final data, covering the fourth quarter of SFY20 and preliminary data through SFY21 Q2. MCDA will be incorporating a teleservices flag into the dashboards to provide information on the proportion of services being delivered in-person versus remotely.

**Trend and Anomaly Detection**

The eighth complete cycle of MCDA’s quarterly control limits approach to detection of data variation signals will be implemented, culminating in a meeting in late July 2021 of the Service Utilization Workgroup. Specific findings related to ongoing impacts from COVID-19 on service utilization patterns will be discussed by the workgroup. Also, in the coming quarter, MCDA staff will conduct follow-up investigations suggested by the workgroup in its May 2021 meeting.

**ADS**

In SFY21 Q4, MCDA and TMHP will continue its collaborative work on enhancements to the ADS. Upcoming upgrades include a flag to more readily identify inpatient hospitalization episodes of care and a pre-calculated field with the number of days in each episode. A separate flag will help analysts distinguish which services were received through the Healthy Texas Women (HTW) program or the HTW Plus program, and which services were paid for through Medicaid or general revenue.

**Enhancing Data Infrastructure**

Given the breadth of the MCDA dashboard library, it is a resource-intensive endeavor to continuously carry out the ongoing updates necessary to keep the data as current as possible. To increase the efficiency of this process, MCDA is investigating the feasibility of using Tableau Python Server (TabPy) to automate these dataset refreshes. TabPy is an external server implementation which allows the execution of Python scripts on Tableau.
# List of Acronyms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Full Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADS</td>
<td>Analytical Data Store</td>
</tr>
<tr>
<td>APD</td>
<td>Advance Planning Document</td>
</tr>
<tr>
<td>BH</td>
<td>Behavioral Health</td>
</tr>
<tr>
<td>CADS</td>
<td>Center for Analytics and Decision Support</td>
</tr>
<tr>
<td>CMS</td>
<td>Centers for Medicare and Medicaid Services</td>
</tr>
<tr>
<td>CHIP</td>
<td>Children’s Health Insurance Program</td>
</tr>
<tr>
<td>COVID-19</td>
<td>Coronavirus Disease of 2019</td>
</tr>
<tr>
<td>DAP</td>
<td>Data Analytics Platform</td>
</tr>
<tr>
<td>DME</td>
<td>Durable Medical Equipment</td>
</tr>
<tr>
<td>EC</td>
<td>Executive Commissioner</td>
</tr>
<tr>
<td>ED</td>
<td>Emergency Department</td>
</tr>
<tr>
<td>ETL</td>
<td>Extract, Transform, and Load</td>
</tr>
<tr>
<td>EQRO</td>
<td>External Quality Review Organization</td>
</tr>
<tr>
<td>FFS</td>
<td>Fee-For-Service</td>
</tr>
<tr>
<td>HB</td>
<td>House Bill</td>
</tr>
<tr>
<td>HCBS</td>
<td>Home and Community Based Services</td>
</tr>
<tr>
<td>HHSC</td>
<td>Health and Human Services Commission</td>
</tr>
<tr>
<td>MCCO</td>
<td>Managed Care Compliance and Operations</td>
</tr>
<tr>
<td>MCDA</td>
<td>Medicaid CHIP Data Analytics</td>
</tr>
<tr>
<td>MCO</td>
<td>Managed Care Organization</td>
</tr>
<tr>
<td>MCS</td>
<td>Medicaid and CHIP Services</td>
</tr>
<tr>
<td>MDCP</td>
<td>Medically Dependent Children Program</td>
</tr>
<tr>
<td>MH</td>
<td>Mental Health</td>
</tr>
<tr>
<td>MMC</td>
<td>Medicaid Managed Care</td>
</tr>
<tr>
<td>MMP</td>
<td>Medicare-Medicaid Plan</td>
</tr>
<tr>
<td>OIG</td>
<td>Office of Inspector General</td>
</tr>
<tr>
<td>OT</td>
<td>Occupational Therapy</td>
</tr>
<tr>
<td>PA</td>
<td>Prior Authorization</td>
</tr>
<tr>
<td>PCS</td>
<td>Personal Care Services</td>
</tr>
<tr>
<td>PDN</td>
<td>Private Duty Nursing</td>
</tr>
<tr>
<td>PHE</td>
<td>Public Health Emergency</td>
</tr>
<tr>
<td>PT</td>
<td>Physical Therapy</td>
</tr>
<tr>
<td>PTOTST</td>
<td>Physical, Occupational, and Speech Therapy</td>
</tr>
<tr>
<td>QPR</td>
<td>Quality Performance Report</td>
</tr>
<tr>
<td>SB</td>
<td>Senate Bill</td>
</tr>
<tr>
<td>SDA</td>
<td>Service Delivery Area</td>
</tr>
<tr>
<td>SFY</td>
<td>State Fiscal Year</td>
</tr>
<tr>
<td>ST</td>
<td>Speech Therapy</td>
</tr>
<tr>
<td>SUD</td>
<td>Substance Use Disorder</td>
</tr>
<tr>
<td>TabPy</td>
<td>Tableau Python Server</td>
</tr>
<tr>
<td>TMHP</td>
<td>Texas Medicaid &amp; Healthcare Partnership</td>
</tr>
<tr>
<td>Acronym</td>
<td>Full Name</td>
</tr>
<tr>
<td>---------</td>
<td>-----------------------</td>
</tr>
<tr>
<td>UR</td>
<td>Utilization Review</td>
</tr>
<tr>
<td>VDP</td>
<td>Vendor Drug Program</td>
</tr>
</tbody>
</table>