Medicaid CHIP Data Analytics Unit Quarterly Report of Activities State Fiscal Year 2022, Quarter 1

As Required by
2022-23 General Appropriations Act, House Bill 1, 87th Legislature, Regular Session, 2021Texas Health and Human Services
(Article II, HHSC, Rider 7)

Texas Health and Human Services Commission

January 2022

TEXAS
Health and Human
Services

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1. Executive Summary

Rider 7, Data Analysis Unit Reporting, directs the Health and Human Services Commission (HHSC) to submit a quarterly report on activities and findings of the data analysis unit established pursuant to Government Code, §531.0082. In compliance with this rider, this report focuses on the quarterly activities, the status of major projects, and the findings of the Medicaid CHIP Data Analytics Unit (MCDA).

Highlights this quarter include:

- MCDA discovered and alerted the Office of Inspector General (OIG) about types of behavioral health services where a wide disparity in the amounts paid to some providers exists, similar to previous findings in SFY21 Q3. Based on the MCDA analyses, the OIG Fraud Detection Unit developed algorithms specific to the patterns observed by MCDA and is currently evaluating the data analytics findings to determine overall impact to Medicaid and CHIP Services (MCS) and further investigative actions.

- As part of HHSC's study to examine the impact of the COVID-19 pandemic on vulnerable Texans, MCDA posted dashboards on the HHSC public website displaying the use of teleservices during the pandemic. These dashboards are meant to help stakeholders understand the degree to which increased availability and utilization of these services impacted clients in Medicaid.

- Per HB 4533, 86th Regular Legislative Session, 2019, requiring HHSC to post Medicaid managed care complaints data, MCDA's complaints dashboards for SFY21 Q1 and Q2 were published for the first time on the external HHSC website in November.

- MCDA conducted a thorough review of how the Medicaid and CHIP provider network adequacy is evaluated and monitored. As a result, the team developed a new fully integrated workflow for analyzing both time and distance standards simultaneously, enabling MCS to report the travel time analysis on a more timely basis and in a more meaningful, cohesive report.

- To help ensure that the upcoming Medicaid Autism Services Applied Behavior Analysis (ABA) benefit includes a sufficient provider network, MCDA is providing MCS leadership and the managed care organizations (MCOs) an array of weekly maps displaying the distance between clients eligible for the

benefit and enrolled providers. These tools are helping to target provider outreach efforts on areas with network deficits.

2. Introduction

The 2022-23 General Appropriations Act, House Bill (HB) 1, 87th Legislature, Regular Session, 2021 (Article II, Health and Human Services Commission, Rider 7), directs 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 first quarter of State Fiscal Year 2022 (SFY22 Q1).

During SFY22 Q1, MCDA within the Office of Data, Analytics, and Performance (DAP) completed 40 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.

MCDA collaborates closely with many units within the MCS Division. At the most recent quarterly Service Utilization Workgroup meeting, where MCDA presents its findings of service utilization trends and anomalies, 32 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.

In addition, Rider 7 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 OIG communicate monthly to exchange updates on respective analyses. MCDA continues to assist the OIG with documentation related to the analysis as the OIG investigates further.

3. 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 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. MCDA has read access to the TexConnect Oracle database and can provide that level of detail for MCCO staff when needed. MCCO is reviewing the possibility of adding that functionality to the TexConnect portal in a future enhancement. In SFY22 Q1, MCDA has provided MCCO staff with complete data extracts for quality review of two of the deliverables (network adequacy and provider termination) by extracting data directly from the TexConnect database.

In SFY2022 Q1 MCDA staff began assisting STAR+PLUS and STAR KIDS policy staff in automating report production for MCO self-reported data submitted per Uniform Managed Care Manual chapters 5.4.5.3 and 5.4.5.6. The deliverables referenced in these chapters collect information about number of members authorized to receive Personal Care Services (PCS) and number of members who received those services, as well as the number of units authorized and received.

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 SFY22 Q1, the Quality Performance Report (QPR) compliance dashboard was updated and revised to include all new data points through SFY21 Q4. In addition, MCDA completed design, testing, and development work on enhancements to the dashboards to include additional measures requested by MCCO beyond the contract compliance measures. These enhancements were completed and approved by MCCO.

Complaints Dashboards

As a result of findings from the report required by 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 added related requirements, including making aggregated data available to the legislature and the public.

In SFY22 Q1, two complaints dashboards for SFY21 Q1 and SFY21 Q2 were published on the [HHSC website](). These dashboards will be updated and published quarterly and include one dashboard for initial contact complaints, which are complaints that were resolved within one business day, and one dashboard for all other complaints. The dashboards display complaints compiled from both MCOs/DMOs and HHSC. They include both member and provider complaints data. In SFY22 Q1, MCDA compiled the SFY21 Q3 data for the dashboards.

Additionally, MCS plans to begin to incorporate the complaints data into the MCO report cards produced by the state's External Quality Review Organization (EQRO), the Institute for Child Health Policy at the University of Florida (ICHP). To facilitate this addition, MCDA will be submitting complaint level data on a recurring basis to the EQRO. In SFY22 Q1 MCDA submitted the requested detailed complaints data for

August 2020 – May 2021 to ICHP. It is anticipated that ICHP will request these data on an annual basis.

As part of a Client 360 view being developed for MCS by Performance Management and Analytics System (PMAS) staff, MCDA has been investigating the use of complaints data collected in the TexConnect system (MCO self-reported complaints) and the HHS Enterprise Administrative Record Tracking System (HEART) (complaints submitted directly to the HHS Office of the Ombudsman (OOO)).

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 provider reimbursement rates that generally do not meet average commercial reimbursement levels. 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. MCDA measures geodistance and travel time between clients and providers using geospatial mapping analysis. Previously, only geodistance analysis would be completed for this quarter, with travel time being reported annually. In SFY22 Q1, MCDA developed a fully integrated workflow for analyzing both time and distance standards simultaneously using a single software. This integrated approach is less redundant and more computationally efficient, reducing the necessary number of employees actively working on network adequacy reports, as well as enabling MCS GIS analysts to report the travel time analysis quarterly instead of annually. Once the updated Distance Performance data have been verified, MCDA will update the Distance Performance dashboard through SFY22 Q1. This dashboard presents data on compliance with HHSC distance performance standards by MCO, county, and provider type.

- In conjunction with the updated methodology described above, MCDA conducted a thorough review of how distance and time standards are used in

general by HHSC for assessing network adequacy, aimed at identifying potential areas for improvement. Examinations fell in two broad categories: integrating distance and travel time performance analyses into a single, more interpretable measure that is based on meeting travel time or travel distance standards (rather than using geodistance), and switching county-level "Metro-centric" standard definitions to more granular, "Urban-centric" ones. After research and exploratory analyses, MCDA presented suggestions to the MCS Network Adequacy Workgroup. The updated methodology suggested would be more meaningful for capturing clients' travel burdens, alleviate measurement biases between urban and rural areas, and provide more actionable information that could be used to determine the design and potential impact of alternative approaches to remedy access deficiencies.

- MCDA updated the Provider Terminations Report dashboard with SFY21 Q3 data. This dashboard includes 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 May 2021. This dashboard presents telehealth, telemedicine, and telemonitoring costs, claims, clients, and providers, allowing filtering factors like client age and program.

- To help with survey development for use in implementation of SB 640 (87th Legislature, Regular Session, 2021), that requires HHSC to conduct a study on the interoperability needs and technology readiness of behavioral health service providers in Texas, MCDA pulled and compiled a list of teleservices providers' contact information for the Office of e-Health Coordination (OeHC).

- MCDA updated a dashboard to analyze the share of mental health; SUD; well child visits; and Physical, Occupational, and Speech Therapy (PTOTST) care delivered via teleservices from SFY16 to SFY20, with demographic breakouts,

to show its increased usage over time and how COVID-19 has impacted the utilization levels of the benefits.

- MCDA provided HHSC Medical Benefits group the average duration Medicaid clients are receiving home telemonitoring services to help estimate the duration of service utilization for newly covered medical conditions.

- MCDA provided subject matter expertise and help researching PTOTST, tele-dentistry, and other teleservices benefit topics for the expansion of teleservices coverage pursuant to HB 4 (87th Legislature, Regular Session).

Prior Authorization Data Collection

Access to prior authorization data from the MCOs enhances contract oversight by allowing MCS and MCDA to track 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 frequencies by service type. The dataset and dashboard are refreshed monthly; the most recent completed month of data is August 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. Granular data will allow MCDA to connect client level prior authorizations to actual services delivered as reported in the encounters.

In SFY22 Q1, HHSC continued to coordinate with Texas Medicaid & Healthcare Partnership (TMHP) on the development of the project to finalize variables to include in the new Member-Level Data Warehouse. UR staff have continued to work with the MCOs to assist them in successfully submitting test data to the TMHP Data Warehouse. Four MCOs have passed all testing. The current deadline for all MCOs to complete testing and begin entering production data is January 1, 2022.

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 programs, MCOs, Service Delivery Areas (SDA), age groups, race/ethnicity, and gender. 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); substance use disorder (SUD); and well-child visits. During the first quarter of SFY22, the dashboard was updated to include finalized data through SFY21 Q1 and preliminary data through SFY21 Q3.

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 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 may be 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.

Figure 1: Sample Screen Shot of Anomaly Detection Dashboard with Short Run
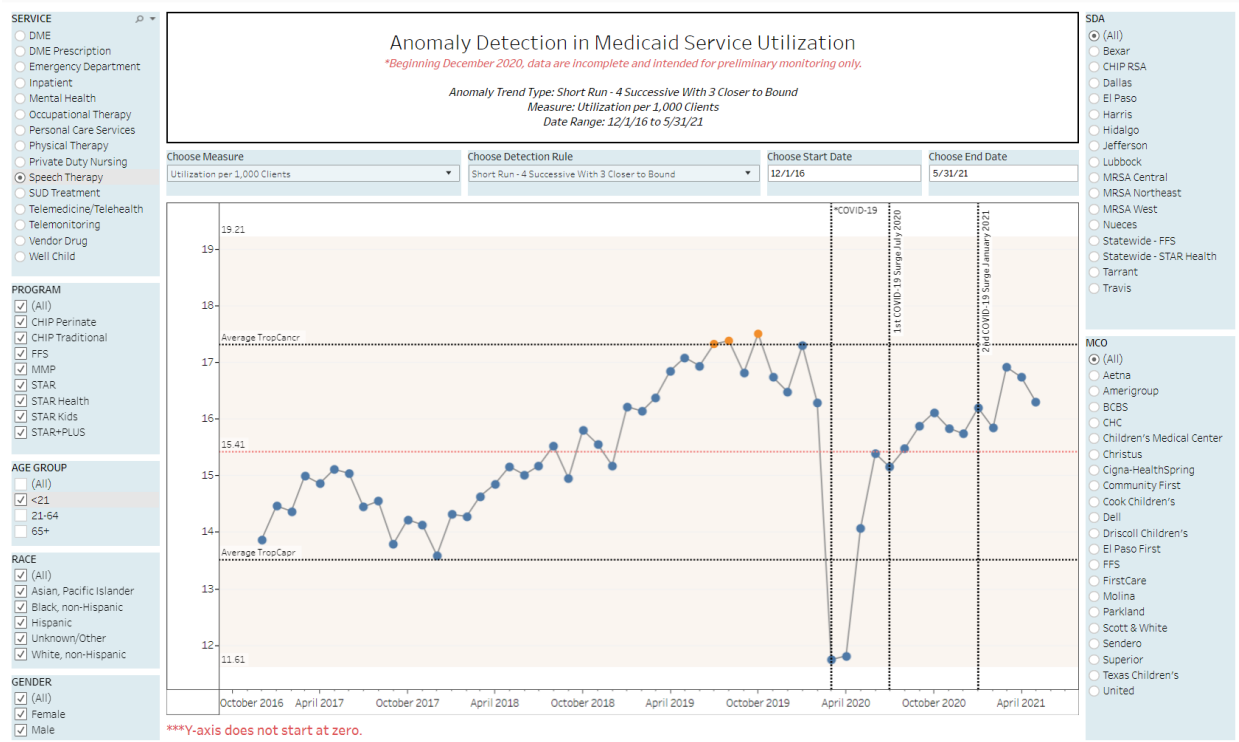
Service Utilization Monitoring During COVID-19

In the first quarter of SFY22, 74 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 to SFY21 Q1 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 SFY21 Q1, 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. 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 the immediate impact of COVID-19 on services generally compare utilization in February 2020, just prior to the PHE, to April 2020, right after its onset. Observations about the impact of the PHE on services since then are based on final data through SFY21 Q1 (November 2020) and preliminary data from December 2020 - May 2021. The more recent data are "preliminary" because encounters are not considered complete until eight months after services are delivered. This reporting lag provides time for providers and MCOs to submit and adjudicate the claims. Therefore, these more recent 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. Unlike in previous years, a seasonal peak in ED utilization typically seen in winter months

(December/January) is absent post COVID-19 Public Health Emergency (PHE) and typical seasonal troughs during summer months have not re-emerged. A decrease in the FFS utilization rate began pre-pandemic, in February 2020, corresponding to the incorporation of the HTW program into Medicaid. A sudden influx of enrolled FFS clients may have, at least temporarily, decreased the utilization rate more than usual. Preliminary data through May 2021 indicate that ED utilization rates have stabilized but are not close to the pre-pandemic period.

- 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 May 2021 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.

- Despite this rebound, the typical uptick in the late summer months for vaccinations and school physicals were absent in SFY20 Q4 and SFY21 Q1. Unlike some of the other service types that switched to remote service delivery, well-child visits experienced a very marginal increase in teleservices, probably due to the need for in-person contact for services like vaccinations. Prior to March 2020, no well-child visits were conducted remotely, while only about 1 to 2% of services were performed remotely from April 2020 to May 2021.

- Vendor Drug Program (VDP) service utilization rates decreased from about 220 clients per 1,000 in February 2020 to around 150 clients per 1,000 in April 2020 (~32 percent decrease). In May 2021, utilization per 1,000 is still well below pre-pandemic numbers but the increase in enrollment may be artificially driving down the rates as the number of monthly clients approaches or is above the long-term mean. Preliminarily, after the winter storm in February 2021, utilization rates in March 2021 increased almost 19% overall and by May 2021 are up 25% from February 2021. This is the

largest increase since the beginning of the PHE and a similar increase can be seen in CHIP-Traditional and all STAR programs.

- After further investigating the theory that the decrease in VDP utilization is driven by certain drugs it was found that the top 2 drug categories for clients under 21 pre-COVID were antihistamines and bronchodilators. After the PHE was declared in March 2020 the number of prescriptions for these two categories plummeted. Clients prescribed antihistamines and bronchodilators decreased by 39% and 37% respectively. A few studies have shown that asthma attacks have dropped by 40% during the pandemic, possibly due to reduced exposure to cold and flu viruses, reduced exposure to irritants at school and work, and lower levels of pollution due to lockdown. The number of clients prescribed bronchodilators is still down, but antihistamines claims are making a steady recovery. Anticonvulsants and anti-depressants are the most common drug categories for 21+ but the PHE did not appear to have a major impact on adult utilization rates.

- 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). By May 2021, however, preliminary data indicates that all three types of therapy utilization have rebounded above the long-term mean.

- An increase in delivering services via a remote modality for these therapies likely played a role in their relatively quick recovery. Teleservices had the greatest effect on speech therapy as none of these services were delivered remotely prior to the PHE but more than half (51%) of them were conducted remotely in April 2020 for clients of all ages. The percentage of remote speech therapy plateaued to around 30% in February 2021 and as of May 2021 decreased to 21%. Occupational therapy saw a large increase in teleservices as well during the PHE, from just a few remote services conducted in February 2020 to 27% of total OT in April 2020. Between June 2020 and February 2021, remote occupational therapy services, for clients of all ages, remained steady around 15% but has since decreased to 8% in May 2021. Teleservices also had a modest impact on physical therapy as it went from 0% remote pre-pandemic to 11% in April 2020. Three percent of physical therapies are still being delivered remotely as of May 2021.

- 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 (~14 percent decrease) and by November 2020 had decreased to 22 clients per 1,000. Preliminary data through May 2021 indicate that while the utilization rates seem to have leveled off, the average number of monthly clients with services experienced a rebound, with a rise in the total number of clients in the spring of 2021 being similar to pre-COVID levels. This trend could suggest that some of the 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. Teleservices have declined somewhat but still make up about 45% of mental health utilization through May 2021.

- From February 2020 to April 2020, Substance Use Disorders (SUD) services decreased from 0.9 clients per 1,000 to 0.74 clients per 1,000 (~18.7 percent decrease). Preliminary data through May 2021 indicates that the average monthly number of clients served rebounded to pre-COVID levels, with a rise in the total number of clients in the spring and summer of 2020 and has been above average through May 2021. 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 and about 15% of services are still delivered remotely as of May 2021.

- Starting in 2020 Q4, the PDN and PCS data utilization per 1,000 client calculations have been revised to account for a limitation in the way the visualization software calculates denominators. Among members less than 21 years old, PDN utilization rates dropped modestly from around 1.7 per 1,000 in March 2020 to around 1.6 per 1,000 in April 2020 (~6% decrease). Likewise, among members less than 21 years old, the PCS utilization trend decreased modestly from around 4.3 in March 2020 to 4.1 in April 2020 (~4.7%). The utilization rates appear to decrease further in subsequent months. However, the raw counts of clients utilizing PDN and PCS services rebound and remains relatively stable. The downward trend in the utilization rates is likely an artifact of the denominator (enrollees) increasing during the PHE, as more people qualified for services due to job loss and federal rules against removing people from Medicaid or CHIP. It is important to note that utilization rates for services with low client numbers are more sensitive to

changes in the client pool eligible for the services, i.e., the utilization rate denominator.

- 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 (3.7 per 1,000) in February 2020 to about 388,000 (78.2 per 1,000) in April 2020. By November 2020, roughly 300,000 clients (55.6 per 1,000) were utilizing teleservices (representing nearly 1 in 20 clients). Preliminary data up to May 2021 has shown a decline from its peak as about 225,000 clients (39.5 per 1,000) are utilizing teleservices.

- Like telehealth and telemedicine services, telemonitoring experienced an uptick in utilization during the COVID-19 PHE. 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 2020 (~16 percent). Looking at the preliminary data through May 2021, the monthly utilization rate decreases to around 1.8 clients per 1,000. Although the May 2021 utilization rate is lower than the February 2020 pre-PHE rate, the number of clients utilizing telemonitoring is about 15% higher; with 10,200 clients in May 2021 versus 8,900 in February 2020.

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 quarterly. In SFY22 Q1, MCDA refreshed the dashboards with data through May 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 and teleservices dashboards to allow for comparison of service utilization patterns and the use of teleservice across various client populations.

In SFY22 Q1, MCDA created and posted two dashboards on the HHSC public website in coordination with the COVID-19 vulnerable populations study. The new dashboards highlight the use of teleservices during the PHE. They include the number of teleservices and the associated amount paid, by month, and can be filtered by age group, program, SDA, race/ethnicity, and sex. The second dashboard looks at the percentage of mental health; SUD; well child visits; and physical, occupational, and speech therapy care and amount paid via teleservices; broken out by month and can be filtered by age group, program, SDA, race/ethnicity, and sex.

MCDA conducted an analysis to estimate the non-risk payment expenditures for COVID-19 testing/diagnostic services as well as inpatient hospital treatment. MCDA is building a dashboard that identifies any abnormal billing practices for MCOs that are receiving non-risk payments for testing/diagnostic services. MCDA continues to work with the Texas Department of State Health Services' Immunization Department in obtaining the rates of COVID-19 vaccination among Medicaid and CHIP members, including those members who have received their COVID-19 vaccines outside of the Medicaid and CHIP programs.

Physical, Occupational, and Speech Therapy Monitoring

MCDA continues to closely monitor physical, occupational, and speech therapy utilization rates in compliance with Rider 10 of Senate Bill 1, 87th Legislature, Regular Session, 2021 (Article II, HHSC). MCDA will continue to prepare analyses on client service utilization, provider network adequacy, and services provided to clients while on wait lists, for inclusion in the June 2022 report. As the new report is biannual instead of quarterly, going forward, MCDA will share findings from the reports twice a year.

Behavioral Health

In SFY22 Q1, MCDA continued to revamp 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

In SFY22 Q1, MCDA began modifications to a quarterly report on the Interstate Compact on the Placement of Children (ICPC) to bring it into closer alignment with the annual psychotropic dashboard report.

Additionally, MCDA discovered and alerted the OIG about additional types of behavioral health services where a wide disparity in the amounts paid to some providers exists, similar to previous findings in SFY21 Q3. Based on the MCDA analyses, the OIG Fraud Detection Unit developed algorithms specific to the patterns observed by MCDA and are currently evaluating the results of the data analytics findings to determine overall impact to the program and further investigative actions.

Autism Applied Behavior Analysis

The legislative intent in Rider 28 (87th Texas Legislature, Senate Bill 1, 2021 (Art. II, HHSC)) is implementation of the Medicaid Autism Services ABA benefit as soon as practicable, but not later than Feb. 1, 2022. In SFY22 Q1, MCDA provided the Autism benefit work group and the MCOs a count of clients, by age, who are diagnosed with autism and are likely to take part in the new medical benefit based on past service utilization patterns. MCDA is continuing to geocode licensed behavioral analyst (LBA) providers and potential clients' home addresses. MCDA uses this geocoded information to make an array of maps for both external and internal use; including, enrolled LBA provider locations, submitted LBA application locations, and client home locations.

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 DAP 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 DAP or Forecasting.

Over time, MCDA has made changes to the monthly enrollment report in response to changes in policy, such as when Adoption Assistance and Permanency Care Assistance moved from Fee for Service to Managed Care. When changes occur, MCDA staff make manual changes to the enrollment report which are then vetted by Forecasting. Once Forecasting verifies the changes, MCDA staff build automated processes to populate the new items in the report going forward.

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 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 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 DAP teams via the Data Analytics Platform.

In SFY22 Q1 MDCA has worked with TMHP to enhance ADS with additional variables which will improve the accuracy and consistency of analyses. These enhancements include creating indicators for Women's Health and the Medically Dependent Children Program, as well as calculated fields for inpatient episodes of care length of stay days that span the entire episode of care (which may represent multiple claims/encounters). Some of these new fields have been completed and are currently in use, while others are still in the development and testing stages.

5. Goals for Next Quarter

In SFY22 Q2, 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, as well as the new telemedicine 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 the Research and Evaluation Unit within DAP) on the impact of COVID-19 on vulnerable Texans, including those who receive services through the Medicaid program. MCDA will begin to use the enhanced dashboards (including demographics) as the basis for quarterly anomaly detection. Resulting observations will be communicated to the Research and Evaluation 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 HHSC Office of the Ombudsman, HHSC Division of Medicaid and CHIP Services, and self-reported data from the MCOs. MCDA will also 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. This ETL process will occur on an agreed upon monthly schedule until the design for the system for collecting member level PA data is finalized and implemented. Two MCOs have passed trading partner training and are expected to begin submitting detailed prior authorization data in September. HHSC is working with the remainder of the MCOs to develop action plans for finalizing trading partner testing and submitting detailed data. For these MCOs, the action plan will include submitting historical data back to September 2021.

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 SFY22 Q2, MCDA will pull the SFY22 HCBS random sample and associated client data.

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 contract compliance. In addition, 30-day and 45-day deliverable data refreshes for SFY22 Q1 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 second quarter of SFY21 and preliminary data through SFY21 Q4.

Trend and Anomaly Detection

The ninth complete cycle of MCDA's quarterly control limits approach to detection of data variation signals will be implemented, culminating in a meeting in late January 2022 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 April 2022 meeting.

ADS

In SFY22 Q2, 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 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. MCDA is also exploring the use of Microsoft Power BI as a method for increasing the efficiency of its ETL processes.

6. List of Acronyms

Acronym	Full Name
ABA	Applied Behavior Analyst
ADS	Analytical Data Store
APD	Advance Planning Document
BH	Behavioral Health
CMS	Centers for Medicare and Medicaid Services
CHIP	Children's Health Insurance Program
COVID-19	Coronavirus Disease of 2019
DAP	Office of Data, Analytics, and Performance
DME	Durable Medical Equipment
EC	Executive Commissioner
ED	Emergency Department
ETL	Extract, Transform, and Load
EQRO	External Quality Review Organization
FFS	Fee-For-Service
HB	House Bill
HCBS	Home and Community Based Services
HEART	HHS Enterprise Administrative Record Tracking System
HHSC	Health and Human Services Commission
HTW	Healthy Texas Women
ICHP	Institute for Child Health Policy at the University of Florida
LBA	Licensed Behavioral Analyst
MCCO	Managed Care Compliance and Operations
MCDA	Medicaid CHIP Data Analytics
MCO	Managed Care Organization
MCS	Medicaid and CHIP Services
MDCP	Medically Dependent Children Program
MH	Mental Health
MMC	Medicaid Managed Care
MMP	Medicare-Medicaid Plan
OIG	Office of Inspector General
OOO	HHS Office of the Ombudsman
OT	Occupational Therapy
PA	Prior Authorization
PCS	Personal Care Services
PDN	Private Duty Nursing
PHE	Public Health Emergency
PMAS	Performance Management and Analytics System
PT	Physical Therapy
PTOTST	Physical, Occupational, and Speech Therapy
QPR	Quality Performance Report
SB	Senate Bill

Acronym	Full Name
SDA	Service Delivery Area
SFY	State Fiscal Year
ST	Speech Therapy
SUD	Substance Use Disorder
TabPy	Tableau Python Server
TMHP	Texas Medicaid & Healthcare Partnership
UR	Utilization Review
VDP	Vendor Drug Program