



Evaluation of Medicaid Spending and Outcomes for Substance Use Disorder Treatment

**As Required by
Senate Bill 1, 85th Legislature,
Regular Session, 2017
(Article II, HHSC, Rider 29)**

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Executive Summary

This report presents findings from the evaluation of program spending and client outcomes for adults receiving Medicaid substance use disorder (SUD) treatment services, as required by the 2018-19 General Appropriations Act, Senate Bill 1, 85th Legislature, Regular Session, 2017 (Article II, Health and Human Services Commission, Rider 29).

SUD benefits are designed to treat substance use problems and to help improve the quality of life for people suffering from such disorders.¹ The 81st Legislature directed the Texas Health and Human Services Commission (HHSC) to use existing funds to implement a SUD benefit for adults in Medicaid, with the goal of reducing program spending related to substance use disorder among adults.²

Findings show that the majority of the treated population is female, and about half of the treated population are aged, blind, or disabled. Findings also show an increase in SUD treatment utilization and that the average annual costs per treated clients are trending down over time.

¹ Robert Wood Johnson Foundation, Policy Brief: Substance Abuse Treatment Benefits and Costs: http://www.saprp.org/knowledgeassets/knowledge_brief.cfm?KAID=1

² 2010-11 General Appropriations Act, S.B. 1, 81st Legislature, Regular Session (Article IX, Contingency and Other Provisions, Section 17.15): http://www.lbb.state.tx.us/Documents/GAA/General_Appropriations_Act_2010-11.pdf

1. Introduction

SUD benefits are designed to treat substance use problems and to help improve the quality of life for people suffering from such disorders.³ The 81st Legislature directed HHSC to use existing funds to implement a SUD benefit for adults in Medicaid, with the goal of reducing program spending related to substance use disorder among adults.⁴ The rider also required HHSC to analyze and submit data to the Legislative Budget Board (LBB) to determine if the amount spent on SUD benefits for adults increased overall Medicaid spending. If the LBB determines SUD treatment services lead to an increase in overall Medicaid spending, HHSC must discontinue the benefit for adults.⁵

The 84th Legislature directed HHSC to develop a methodology for the evaluation of SUD benefit costs and outcomes for individuals 21 and older, including the submission of a status report.⁶ This was a result of the LBB's recommendation that HHSC be authorized to conduct a thorough analysis.⁷ An Evaluation Methodology Report for Cost Effectiveness of Substance Use Disorder was submitted to the LBB and the Office of the Governor on January 4, 2016. In this report, HHSC outlined its proposed evaluation methodology and identified data limitations. In addition, HHSC submitted a letter on December 2, 2016, providing a status report. A SUD benefit was implemented for adults and children in two phases starting September 1, 2010, and included assessment; outpatient treatment (e.g., individual and group counseling); residential treatment; medication assisted therapy (MAT); residential

³ Robert Wood Johnson Foundation, Policy Brief: Substance Abuse Treatment Benefits and Costs: http://www.saprp.org/knowledgeassets/knowledge_brief.cfm?KAID=1

⁴ 2010-11 General Appropriations Act, S.B. 1, 81st Legislature, Regular Session (Article IX, Contingency and Other Provisions, Section 17.15): http://www.lbb.state.tx.us/Documents/GAA/General_Appropriations_Act_2010-11.pdf

⁵ Ibid.

⁶ 2016-17 General Appropriations Act, House Bill 1, 84th Legislature, Regular Session, 2015 (Article II, HHSC, Rider 44).

⁷ LBB 2015 Government Effectiveness and Efficiency SUD Review: http://www.lbb.state.tx.us/Documents/Publications/GEER/Government_Effectiveness_and_Efficiency_Report_2015.pdf

detoxification; and ambulatory detoxification.⁸ To evaluate the costs, treatment trends, and outcomes of SUD benefits for adults ages 21 and older, HHSC used multiple sources, including Medicaid fee-for-service (FFS) claims data; Medicaid managed care encounter data; pharmacy claims and encounter data; Healthcare Effectiveness Data and Information Set (HEDIS) performance measures; and HHSC's Intellectual and Developmental Disabilities and Behavioral Health (IDD-BH) Services Substance Abuse Prevention and Treatment (SAPT) grant provider data.⁹ HHSC's analysis covered fiscal years 2013-2015.

To the extent possible, HHSC replicated the analysis conducted by the LBB, including the number of adult Medicaid clients identified with a primary, secondary, or tertiary SUD diagnosis; adult clients with a SUD diagnosis who received Medicaid SUD treatment; and overall health care costs of adult clients with a SUD diagnosis who received Medicaid SUD treatment compared to those adult clients with a SUD diagnosis who did not receive Medicaid SUD treatment.

⁸ Residential treatment, residential detoxification, and ambulatory detoxification became available on January 1, 2011.

⁹As of September 2016, the Department of State Health Services (DSHS) Mental Health and Substance Abuse Division, including oversight of SAPT grants, transferred to HHSC under the Intellectual and Developmental Disabilities and Behavioral Health Services in the Medical and Social Services (MSS) Division.

2. Background

As a result of state legislative direction, HHSC implemented a comprehensive SUD benefit for adults and children. The benefit was implemented in phases starting September 1, 2010, and the benefit was fully implemented by January 1, 2011.¹⁰ Medicaid SUD benefits available to adults and children include:

- Assessment
- Outpatient treatment (e.g., individual and group counseling)
- MAT
- Residential treatment
- Residential detoxification
- Ambulatory detoxification

Medicaid SUD services must be provided by a chemical dependency treatment facility licensed and regulated by the state, with the exception of MAT services. MAT services may be provided by a licensed Chemical Dependency Treatment Facility (CDTF) or a physician.

Prior to 2009, outpatient SUD treatment was available in Medicaid for individuals under the age of 21, however residential treatment, residential detoxification, ambulatory detoxification, and MAT services were not recognized as Medicaid payable benefits.

In 2015, the LBB completed its cost effectiveness analysis on Medicaid SUD benefits for adults. Its findings were incorporated into the 2015 Government Effectiveness and Efficiency Report (GEER) SUD review, and due to data limitations that prevented definitive findings, recommendations included requiring HHSC to evaluate the impact of the SUD benefit on overall Medicaid spending and client outcomes.¹¹ Following the GEER SUD review, the 84th Legislature directed HHSC to develop a methodology to evaluate the impact on overall Medicaid spending and

¹⁰ Residential treatment, residential detoxification, and ambulatory detoxification became available in Medicaid fee-for-service January 1, 2011.

¹¹http://www.lbb.state.tx.us/Documents/Publications/GEER/Government_Effectiveness_and_Efficiency_Report_2015.pdf

client outcomes of SUD treatment services,¹² including submission of a status report if the evaluation was incomplete.¹³ The 85th Legislature directed HHSC to submit a final report on its evaluation findings by December 1, 2017.¹⁴

HHSC developed a methodology based on elements outlined in the LBB GEER SUD review and submitted a status report to the LBB and the Office of the Governor in January 2016. This report, as required by Rider 29,¹⁵ provides findings based on HHSC's evaluation of overall Medicaid spending and client outcomes of SUD treatment services provided to adults ages 21 and older with Medicaid.

Scope of the Problem

The National Institute on Drug Abuse describes drug addiction as "a chronic, relapsing brain disease that is characterized by compulsive drug seeking and use, despite harmful consequences."¹⁶ The Substance Abuse and Mental Health Services Administration (SAMHSA) asserts that mental and substance use disorders "occur when the recurrent use of alcohol and/or drugs causes clinically and functionally significant impairment, such as health problems, disability, and failure to meet major responsibilities at work, school, or home."¹⁷ These disorders are costly due to an increase in health care costs, lost productivity, and crime. SAMHSA also asserts

¹² H.B. 1, GAA, 84th Legislature, Regular Session, Article II, HHSC Rider 44: http://www.lbb.state.tx.us/Documents/GAA/General_Appropriations_Act_2016-2017.pdf

¹³ <https://hhs.texas.gov/sites/default/files//rider44-evaluation-methodology-for-substance-use-disorder-cost-effectiveness.pdf>

¹⁴ S.B. 1, GAA, 85th Legislature, Regular Session, Article II, HHSC Rider 29: http://www.lbb.state.tx.us/Documents/Appropriations_Bills/85/Conference_Bills/SB1_Conference_Bill.pdf

¹⁵ Ibid.

¹⁶ "National Institute on Drug Abuse: The Science of Drug Abuse and Addiction," September, 2014 <https://www.drugabuse.gov/publications/media-guide/science-drug-abuse-addiction-basics>

¹⁷ "Substance Abuse and Mental Health Services Administration (SAMHSA): Substance Use Disorders" February 27, 2017 <https://www.samhsa.gov/disorders>

that "substance use alone is estimated to cost Americans more than \$600 billion each year."¹⁸

According to results of the 2015 National Survey on Drug Use and Health, "approximately 20.8 million people (5.9 percent) aged 12 or older had a SUD in the past year, and an estimated 21.7 million people (one in 12 people, or 8.1 percent) aged 12 or older needed SUD treatment (i.e., treatment for problems related to the use of alcohol or illicit drugs, including opiates).¹⁹

Texas-specific information can be found in the 2013-2014 state estimates from the National Survey on Drug Use and Health. The survey findings estimated that 8.03 percent, or more than 1.5 million, of Texans ages 18 and over had alcohol or illicit drug dependency. Of the estimated number of Texans with alcohol or illicit drug dependency or use, 42.42 percent, or 651,571 were below 200 percent of the federal poverty level.²⁰ Furthermore, in a state-by-state analysis of total health care costs relating to opioid abuse, Texas ranked second (\$1.96 million).²¹ Texas had one of the highest distributions of opioid dependence diagnoses compared to other substance use and dependence diagnoses from 2007-2014.²²

¹⁸ "Substance Abuse and Mental Health Services Administration: Prevention of Substance Abuse and Mental Illness," August 9, 2016 <https://www.samhsa.gov/prevention>

¹⁹ 2015 National Survey on Drug Use and Health: <https://nsduhweb.rti.org/respweb/homepage.cfm##>

²⁰ 2013 National Survey on Drug Use and Health Estimates of Substance Use and Mental Disorders

²¹ https://drugfree.org/wp-content/uploads/2015/04/Matrix_OpioidAbuse_040415.pdf

²² Opioid Dependence Leads to 'Tsunami' of Medical Services: <https://khn.org/news/opioid-dependence-leads-to-tsunami-of-medical-services-study-finds/>

Medicaid Prior to SUD Benefit

Prior to the implementation of a Medicaid SUD benefit in 2010 and 2011, fewer than 25 percent of the 47,663 Texas Medicaid clients with a SUD diagnosis received treatment.²³ Access to SUD treatment services was limited to:

- Value-added services provided through some Medicaid health plans²⁴
- SAPT grant services managed by HHSC's IDD-BH Services.²⁵
- Participants in NorthSTAR, a former Medicaid managed care model that delivered mental health and chemical dependency services to eligible residents in Dallas, Ellis, Collin, Hunt, Navarro, Rockwall and Kaufman counties²⁶
- Hospital-based detoxification options

Individuals eligible for Medicaid now receive SUD benefits through three delivery systems:

- Medicaid managed care: Most adults in managed care get state plan²⁷ services through the STAR+PLUS program, primarily serving aged and disabled populations; and the STAR program, primarily serving children and

²³ <https://hhs.texas.gov/sites/default/files//rider44-evaluation-methodology-for-substance-use-disorder-cost-effectiveness.pdf>

²⁴ Value-added services are extra services provided by Medicaid health plans beyond those available through Medicaid. Value-added services must promote healthy lifestyles, improve health outcomes for managed care members, be no cost to the state, and be approved by HHSC.

²⁵ <https://www.dshs.texas.gov/mhsa/blockgrant/> As of September 2016, the Department of State Health Service's Mental Health and Substance Abuse Division transferred to HHSC. The SAPT grants are now overseen by HHSC's Intellectual and Developmental Disabilities and Behavioral Health Services in the Medical and Social Services (MSS) Division.

²⁶ NorthSTAR concluded December 31, 2016, and existing Medicaid health plans became responsible for delivering behavioral health services in these counties.

²⁷ <https://hhs.texas.gov/services/health/medicaid-chip/about-medicaid-chip/state-plan>. The State Plan describes the nature and scope of the Texas Medicaid program.

pregnant women.²⁸ Medicaid health plans are responsible for arranging for the delivery and reimbursement of covered services.

- Medicaid FFS: The state's claims administrator manages Medicaid benefits for individuals in FFS.²⁹
- SAPT grants: SAPT grants are used for prevention, treatment, recovery support, and other services to supplement Medicaid, Medicare, and private insurance services.³⁰ Individuals in Medicaid may access SAPT for services not covered by Medicaid.

HHSC began offering SUD treatment services using existing appropriations in 2010. Assessments, outpatient treatment, MAT, residential treatment, residential detoxification, and ambulatory detoxification became available to Medicaid managed care adult members starting September 1, 2010, and residential treatment, residential detoxification, and ambulatory detoxification became available to Medicaid FFS clients starting January 1, 2011.

Evaluation Methodology

Approach

As outlined in the *Evaluation Methodology Report for Cost Effectiveness of Substance Use Disorder*³¹ published January 2016, HHSC modeled its analysis on the LBB's 2015 review. The population is limited to adults ages 21 and older for fiscal years 2013-2015. Using Medicaid FFS data,³² Medicaid managed care

²⁸ Texas Medicaid and CHIP in Perspective:

<https://hhs.texas.gov/sites/default/files//documents/laws-regulations/reports-presentations/2017/medicaid-chip-perspective-11th-edition/11th-edition-chapter1.pdf>

²⁹ Texas Medicaid Provider Procedures Manual (TMPPM):

http://www.tmhp.com/Manuals_PDF/TMPPM/TMPPM_Living_Manual_Current/1_02_Texas_Medicaid_Reimbursement.pdf

³⁰<https://www.samhsa.gov/grants/block-grants>

³¹ <https://hhs.texas.gov/sites/default/files//rider44-evaluation-methodology-for-substance-use-disorder-cost-effectiveness.pdf>

³² <http://www.nashp.org/wp-content/uploads/2016/03/Claims-Brief.pdf>: In Medicaid FFS, providers submit claims to receive payment. These claims provide information on the individual services a Medicaid beneficiary receives.

encounter data,³³ and pharmacy claims and encounter data as its primary sources, HHSC identified and evaluated the following:

- Number of adult Medicaid clients identified with a primary, secondary, or tertiary SUD diagnosis on a Medicaid claim or encounter.
- Number of adult clients with a SUD diagnosis listed on a Medicaid claim or encounter who also received Medicaid SUD treatment services.
- Number of adult clients with a SUD diagnosis listed on a Medicaid claim or encounter who received opioid prescriptions and who later showed Medicaid SUD treatment services.
- An examination of vendor drug data for evidence of SUD treatment services via review of specific SUD-related medications.
- Overall SUD treatment services penetration rates in Medicaid.
- Overall Medicaid health care costs of adult clients with a SUD diagnosis who received Medicaid SUD treatment compared to adult clients with a SUD diagnosis who did not receive Medicaid SUD treatment.

HHSC also examined the Texas SAPT grant provider database and complete analyses of possible SUD-related outcomes that could be employed or matched. SAPT grants are funds awarded to states to plan, implement, and evaluate activities to prevent and treat substance use.³⁴ Texas SAPT grant funds are available to provide services for individuals, including Medicaid clients, for “wrap around services” not available in Medicaid (e.g., childcare while receiving treatment) or costs for stays that exceed the Medicaid benefit (e.g., more than 35 days of residential treatment).

In addition, HHSC examined potentially preventable events and the following HEDIS performance measures:

³³ <http://www.nashp.org/wp-content/uploads/2016/03/Claims-Brief.pdf>: In Medicaid managed care (capitated system), the Medicaid program does not pay providers directly for services to beneficiaries. Instead, the Medicaid agency pays health plans a monthly capitation payment for each beneficiary enrolled in each health plan. The Medicaid health plans then pay providers for services delivered to Medicaid enrollees. In this type of payment system the health plan is responsible for providing the Medicaid agency with encounter data, which is comparable to claims data, that details the specific services provided to an enrollee by a provider.

³⁴ <https://www.dshs.texas.gov/mhsa/blockgrant/>

- Initiation and Engagement of Alcohol and Other Drug Dependence Treatment (IET): This measure assesses the percentage of individuals who initiate treatment through an inpatient alcohol and other drug (AOD) admission, outpatient visit, intensive outpatient encounter, or partial hospitalization within 14 days of diagnosis.³⁵
- Engagement of AOD treatment: This measure assesses the percentage of members who initiated treatment within 14 days of diagnosis, and who had two or more additional services with a diagnosis of AOD within 30 days of the initiation visit.³⁶
- Identification of Alcohol and other Drug Services (IAD): This measure summarizes the number and percentage of members with an AOD claim who received any service; inpatient, intensive outpatient or partial hospitalization; and outpatient or emergency department.³⁷

Moreover, in 2015, HHSC participated in a Centers for Medicare and Medicaid Services (CMS) multi-state SUD High Intensity Learning Collaborative.³⁸ This collaborative provided Texas an opportunity to work with national experts in the field of SUD treatment to identify best practices for improving utilization, matching related data sources, determining best program metrics, and improving data

³⁵ Agency for Healthcare Research and Quality (AHRQ): <https://www.qualitymeasures.ahrq.gov/summaries/summary/48854/initiation-of-alcohol-and-other-drug-aod-treatment-percentage-of-patients-who-initiate-treatment-through-an-inpatient-aod-admission-outpatient-visit-intensive-outpatient-service-or-partial-hospitalization-within-14-days-of-the-diagnosis?q=IET>

³⁶ AHRQ: <https://www.qualitymeasures.ahrq.gov/summaries/summary/48854/initiation-of-alcohol-and-other-drug-aod-treatment-percentage-of-patients-who-initiate-treatment-through-an-inpatient-aod-admission-outpatient-visit-intensive-outpatient-service-or-partial-hospitalization-within-14-days-of-the-diagnosis>

³⁷ AHRQ: <https://www.qualitymeasures.ahrq.gov/summaries/summary/49825/identification-of-alcohol-and-other-drug-services-summary-of-the-number-and-percentage-of-members-with-an-alcohol-and-other-drug-aod-claim-who-received-the-following-chemical-dependency-services-during-the-measurement-year-any-service-inpatient-intensive-outpa?q=IAD>

³⁸ Medicaid High Intensity Learning Collaborative: <https://www.medicaid.gov/state-resource-center/innovation-accelerator-program/program-areas/reducing-substance-use-disorders/high-intensity-learning/index.html>

collection and outcomes measures. Information learned during the collaborative was applied to data collection for this report, to the extent possible.

Data Limitations

Because the 2015 LBB review and HHSC use the same primary data sources for evaluation of the SUD benefit, there are specific data limitations as follows:

- HHSC data systems are not structured to track clients across time.
- Differences in the HHSC claims and encounter systems, including HHSC's vendor drug data system, make client-level data matching challenging.³⁹ Client level information is affected by scrubbing and reassembling multiple data sets from different systems, together with the fact that clients may have data in FFS and managed care.
- Health plans have the flexibility to employ different claims processing requirements, and managed care encounter data is not always consistent.

These challenges make it difficult to track people who routinely cycle on and off of Medicaid. As a result, HHSC cannot identify those who paid for SUD treatment services out of pocket or who had private insurance. In spite of these challenges, HHSC has identified key findings.

³⁹ Vendor drug claims do not include diagnosis; to identify a SUD diagnosis, HHSC matched vendor drug claims to medical claims.

3. Findings

Demographics

HHSC identified populations by eligibility category,⁴⁰ age, gender, and race/ethnicity. The demographic data represent the fiscal year in which an individual received SUD treatment services. Overall, findings show:

- The majority of individuals receiving SUD treatment services between fiscal years 2013 and 2015 were aged, blind, and disabled.
- In fiscal year 2015, 66 percent of the SUD treated population were between the ages of 21 and 42.
- For fiscal years 2013 to 2015, women had higher rates of SUD treatment services between the ages of 21 and 42; whereas men had higher rates of SUD treatment services between the ages of 43 and 64.
- The majority of individuals receiving SUD treatment services between fiscal years 2013 and 2015 were women, and more than half of women receiving treatment in each year were of childbearing age (21 to 45).
- The majority of the treated population are Caucasian, followed by Hispanic.

HHSC also examined whether individuals getting SUD treatment had Medicaid, or Medicaid and Medicare. The data show that approximately 90 percent of individuals receiving SUD treatment in 2015 had Medicaid only, and 10 percent had Medicare and Medicaid.⁴¹

To provide context:

- Medicaid clients ages 21 to 64 comprise 18 percent of the Medicaid population.

⁴⁰ Medicaid eligibility categories include: Aged, blind, and disabled (ABD); pregnant women, and Temporary Assistance for Needy Families (TANF) households (receive a monthly cash benefit and Medicaid).

⁴¹ The STAR managed care program does not serve individuals with Medicare; however, the STAR+PLUS managed care program includes Medicaid and Medicare clients.

- As of fiscal year 2015, about 14 percent of individuals (children and adults) receiving Texas Medicaid services were eligible because of a disability,⁴² and the aged or disability-related category accounts for more than half of Medicaid program spending.⁴³
- Non-disability-related adults (parents and pregnant women) account for seven percent of the Medicaid population and nine percent of expenditures.⁴⁴
- The majority of all Texas Medicaid clients are female (55 percent).⁴⁵
- For fiscal year 2015, Hispanics represented 51 percent of the Medicaid population.

Detailed demographic tables can be found in Appendix A.

Adults with SUD Receiving Treatment

The 2015 LBB review found that an estimated 2.2 percent of adult Medicaid clients with an identified SUD received Medicaid-funded SUD treatment in fiscal years 2011 and 2012. HHSC findings indicate that the number of clients with an identified SUD diagnosis (primary, secondary, or tertiary) is increasing annually, as are corresponding treatment rates. The increase in the number of unique clients with medical or pharmacy SUD treatment and the percent of individuals receiving SUD treatment is shown in Table 1.

Table 1. Number and Percent of Individuals with SUD Receiving Treatment

Fiscal Year	Total Unique Clients Treated (Medical or Pharmacy)	Percent Receiving SUD Treatment
2013	5,088	8.57%

⁴² Texas Medicaid and CHIP in Perspective (Pink Book), Chapter 4: <https://hhs.texas.gov/sites/default/files//documents/laws-regulations/reports-presentations/2017/medicaid-chip-perspective-11th-edition/11th-edition-chapter4.pdf>

⁴³ Texas Medicaid and CHIP in Perspective (Pink Book), Chapter 14: <https://hhs.texas.gov/sites/default/files//documents/laws-regulations/reports-presentations/2017/medicaid-chip-perspective-11th-edition/11th-edition-chapter14.pdf>

⁴⁴ Ibid.

⁴⁵ Ibid.

Fiscal Year	Total Unique Clients Treated (Medical or Pharmacy)	Percent Receiving SUD Treatment
2014	5,353	8.94%
2015	5,967	9.08%

Nationally, the receipt of SUD treatment was low across all populations, at 4.4 percent, for individuals with current Medicaid coverage.⁴⁶

HHSC made a notable discovery in its analysis of the treatment rate. Prior LBB GEER reports included the nicotine dependency diagnosis in the range of diagnosis codes considered a substance use disorder. Upon further analysis, HHSC found approximately 57 percent of the population identified with a SUD diagnosis had only a nicotine dependency diagnosis. HHSC’s Medicaid SUD policy specifically excludes SUD treatment for a sole diagnosis of nicotine dependency. Therefore, HHSC excluded these populations in the total diagnosed SUD population, whether treated or untreated for the purpose of this analysis.

See Appendix B and Appendix C for detailed information.

Costs for Treated and Untreated Clients

For this report, Medicaid costs refers to the amount paid or spent on Medicaid-covered medical or pharmacy services in a fiscal year.

HHSC analysis related to costs for individuals with a SUD diagnosis include pharmacy and medical benefits in the total treatment costs. HHSC examined total costs for treated and non-treated clients diagnosed with a SUD and SUD-only treatment costs. Table 2 shows the average annual costs for treated clients are trending down over time, and that when SUD treatment costs are excluded, the treated population has lower average total medical and pharmacy costs than the non-treated population.

⁴⁶ Mark, T., et al, (2015) National Estimates of Behavioral Health Conditions and Their Treatment Among Adults Newly Insured Under the Affordable Care Act: <http://ps.psychiatryonline.org/doi/full/10.1176/appi.ps.201400078>

Table 2. Average Annual Medical and Pharmacy Cost per Treated and Non-treated Client

Fiscal Year	Cost Per Treated Client - SUD Cost Included	Cost Per Treated Client - SUD Cost Excluded	Cost Per Non-treated Client
2013	\$12,844.51	\$11,258.00	\$12,168.45
2014	\$12,529.58	\$10,878.52	\$11,794.77
2015	\$12,003.90	\$10,373.77	\$13,075.56

See Appendix D for detailed information.

Average Monthly Costs per Client

In 2015, the average monthly cost per client was higher for untreated adults identified with a SUD diagnosis compared to treated adults with a SUD diagnosis. Total average monthly cost for untreated adults with a diagnosed SUD was \$1,559 for services, including pharmacy. For those with an identified SUD diagnosis that received treatment (medical and/or pharmacy), the total average monthly cost was \$1,410.

See Appendix E for additional information.

Quality Measures

Medicaid Managed Care

Texas Medicaid does not require individual providers or the health plans to report Medicaid outcome data related to SUD treatment, including treatment completion rates, jail diversion, stable housing, or employment. Current systems, including health plan systems, are not configured to capture this data, and changes to capture this information would require contract changes, systems changes and/or new systems, and resources to collect, analyze, and report the data.

Medicaid health plans, however, do report SUD-related quality measures to HHSC. Title 42 Code of Federal Regulations (CFR) Part 438, Subpart E requires HHSC to

conduct an independent, external quality review of Medicaid health plans by contracting with an external quality review organization (EQRO). HHSC contracts with the Institute for Child Health Policy as its EQRO. For this report, the EQRO used Medicaid managed care encounter data to run the measure data for HEDIS IET, Engagement of AOD Treatment, and IAD measures, the details of which are reflected in Appendix F.

- Findings related to IET measures for STAR and STAR+PLUS members increased slightly;
- Findings related to AOD measures for STAR and STAR+PLUS members also increased slightly; and
- Findings related to the IAD measure for STAR and STAR+PLUS members indicate that between 2013 and 2015, IADs generally decreased.

HHSC also tracks potentially preventable events for Medicaid managed care members including potentially preventable emergency department visits (PPVs), potentially preventable admissions (PPAs), and potentially preventable readmissions (PPRs), the details of which are reflected in Appendix G.

- Findings indicate that PPVs decreased for STAR and increased for STAR+PLUS;
- Findings indicate that PPAs for SUD-related diagnosis related groups (DRGs) decreased slightly for STAR and fluctuated for STAR+PLUS;
- Findings indicate that PPRs decreased for STAR and increased for STAR+PLUS.

HHSC's Intellectual and Developmental Disabilities and Behavioral Health Services

The Texas Uniform Managed Care Contract, applicable to STAR and STAR+PLUS, requires that the Medicaid health plans consider providers who meet the Medicaid enrollment requirements and have a contract with HHSC to receive funding for treatment under the Federal SAPT block grant, a significant traditional provider (STP) for contracting purposes. STPs are providers who provide care to Medicaid patients at a significant level (as defined by HHSC), agree to accept the standard provider reimbursement rate of the managed care organization (MCO), meet MCO credentialing requirements, and comply with the terms and conditions of the MCO's standard provider agreement. Typically, MCOs must include STPs in their provider

networks for at least three years; however, SAPT providers are not limited to three years.

SAPT providers are required by their HHSC contracts to bill Medicaid first if the client is enrolled in Medicaid. However, the block grant can pick up expenses such as certain wrap around services that are not covered by the Texas Medicaid program, including life skills training and childcare for women who need to bring their children with them during treatment. The block grant also may cover treatment costs for stays that exceed the Medicaid benefit (e.g., more than 35 days of residential treatment).

SAPT grantees use a system called the Clinical Management for Behavioral Health Services (CMBHS), which is a web-based clinical record-keeping system for state-contracted community mental health and substance abuse service providers. In addition to collecting an electronic health record, CMBHS also serves as a clinical tool that includes diagnostic and treatment plan capabilities. Providers utilizing this system also collect outcome measures, including the following at admission and discharge:

- Treatment completion
- Homelessness
- Arrests
- Employment
- Abstinence
- Alcoholics Anonymous or Narcotics Anonymous participation

Medicaid clients showing both a SUD diagnosis and Medicaid treatment (a claim or encounter) were matched to the CMBHS data for SAPT grantees. In fiscal years 2013-2015, an average of 53 percent of the clients with a SUD diagnosis on a Medicaid encounter or claim were treated by a SAPT grantee. For services rendered to these Medicaid clients, Table 3 shows the outcomes by severity. More severe clients have three or more indicators, including intravenous drug use, more than 10 years of drug use, multiple drugs used, daily drug use, and clinician's rating of severity at admission. Less severe clients have 2 or less of these indicators. It should be noted that this outcome data does not reflect all Medicaid-treated populations; it only includes those who were treated through a SAPT grantee.

Table 3: Outcomes by Client Severity for Medicaid clients Served by a SAPT Provider

	Less severe (Admission)	Less severe (Discharge)	More severe (Admission)	More severe (Discharge)
Treatment Completion	Not applicable	68%	Not applicable	49%
Homeless	7%	4%	21%	13%
Arrested	7%	3%	8%	6%
Employed	23%	32%	10%	15%
Abstinent	45%	76%	16%	49%
AA or NA meeting	20%	63%	25%	66%

4. Conclusion

In response to legislative direction, HHSC evaluated overall Medicaid spending and client outcomes of SUD treatment services provided to persons who are at least 21 years old for fiscal years 2013 through 2015.

Demographic data show the treated population is primarily female, and approximately half are aged, blind, or disabled.

Medicaid claims and encounter data demonstrate growth in the number of people diagnosed with a SUD and treated between 2013 and 2015. In 2013, 5,008 people (8.57 percent treatment rate) were identified as having a SUD and receiving a SUD treatment (medical or pharmacy), and by 2015, the number of people identified and treated for SUD increased to 5,967 (9.08 percent treatment rate).

Average annual treatment costs for clients with a SUD are rising as the treated population increases. The per-client average treatment costs were \$1,586.51 (including pharmacy) in 2013 and \$1,630.13 by 2015. However, when SUD treatment costs are excluded, the treated population has lower average annual medical and pharmacy costs, and those costs appear to be decreasing. Average costs were \$11,258 for fiscal year 2013 compared to \$10,373 in fiscal year 2015. In comparison, the untreated population had annual average medical and pharmacy costs of \$12,168 in fiscal year 2013 and \$13,075 in fiscal year 2015.

Data from SAPT grantees indicate that 68 percent of Medicaid clients with less severe SUD conditions seen by these providers completed treatment, and 49 percent of those with more severe SUD conditions completed treatment. Both clients with less severe and more severe SUD conditions showed notable drops in homelessness and arrests. At discharge, SAPT data also showed a 49 percent abstinence rate among more severe treated Medicaid SUD clients and a 76 percent abstinence rate among less severe treated Medicaid SUD clients. Participation rates in Alcoholics Anonymous or Narcotics Anonymous also rose significantly.

An analysis of opioid prescriptions among fiscal year 2015 SUD-treated clients indicated 69 percent had a non-SUD treatment opiate claim in the last 3 years. (Appendix H) The most commonly prescribed non-SUD treatment opiate was Hydrocodone/Acetaminophen.

HHSC will continue to work with its partners, including the Medicaid health plans, to improve client initiation of treatment and follow-up visit rates.

List of Acronyms

Acronym	Full Name
AOD	Alcohol and Other Drug
CMBHS	Clinical Management for Behavioral Health Services
DRG	Diagnosis Related Group
DSHS	Department of State Health Services
EQRO	External Quality Review Organization
FFS	Fee for Service
FY	Fiscal Year
GEER	Government Effectiveness and Efficiency Report
HEDIS	Healthcare Effectiveness Data and Information Set
HHSC	Health and Human Services Commission
IAD	Identification of Alcohol and other Drug Services
IDD-BH	Intellectual and Developmental Disabilities and Behavioral Health Services in the Medical and Social Services Division of HHSC
IET	Initiation and Engagement of Alcohol and Other Drug Dependence Treatment
LBB	Legislative Budget Board

Acronym	Full Name
MAT	Medication Assisted Therapy
MCO	Managed Care Organization
PPA	Potentially preventable admission
PPR	Potentially preventable readmission
PPV	Potentially preventable emergency department visit
SAMHSA	Substance Abuse and Mental Health Services Administration
SAPT	Substance Abuse Prevention and Treatment
STP	Significant Traditional Provider
SUD	Substance Use Disorder

Appendix A. Demographics

Table 4: SUD Treatment by Eligibility Category

Eligibility Category	Total			Female			Male		
	2013	2014	2015	2013	2014	2015	2013	2014	2015
Aged, Blind and Disabled (ABD)	52%	51%	47%	35%	34%	32%	85%	86%	84%
Pregnant Women	16%	17%	18%	23%	25%	26%	0%	0%	0%
Temporary Assistance for Needy Families (TANF)	33%	32%	35%	41%	41%	42%	15%	14%	16%

Table 5: SUD Treated Population Age

Age Group	Total			Female			Male		
	2013	2014	2015	2013	2014	2015	2013	2014	2015
21-31	37%	37%	38%	47%	46%	47%	18%	18%	20%
32-42	27%	28%	28%	30%	31%	31%	22%	22%	21%
43 - 53	20%	20%	18%	16%	15%	14%	29%	29%	26%
53-64	14%	14%	15%	7%	8%	8%	26%	27%	29%
65+	2%	2%	2%	0%	1%	1%	4%	4%	4%

Table 6: SUD Treated Population by Gender

Gender	2013	2014	2015	2013	2014	2015
	Female	3,308	3,497	4,039	65%	65%
Male	1,772	1,850	1,925	35%	35%	32%
Unknown	8	6	3	0%	0%	0%
Total Unique clients	5,088	5,353	5,967			
Women of Childbearing age (age 21-45)	2,643	2,795	3,241	52%	52%	54%

Table 7: SUD Treated Population by Race/Ethnicity

Race/Ethnicity	Total			Female			Male		
	2013	2014	2015	2013	2014	2015	2013	2014	2015
1-Caucasian	42%	39%	38%	47%	44%	42%	34%	31%	29%
2-African American	14%	12%	12%	13%	11%	11%	16%	15%	14%
3-Hispanic	31%	33%	37%	31%	35%	38%	30%	31%	35%
6-Unknown	12%	14%	14%	8%	10%	10%	19%	24%	22%

Table 8: SUD Treated Population by Dual (Medicaid and Medicare) Eligible and Medicaid Only

	Total			Female			Male		
	2013	2014	2015	2013	2014	2015	2013	2014	2015
Non-Dual (Medicaid only)	91%	90%	90%	94%	94%	93%	85%	85%	84%
Dually Eligible (Medicaid and Medicare)	9%	10%	10%	6%	6%	7%	15%	15%	16%

Notes for all demographic tables in Appendix A:

1. Data represent the fiscal year in which the client received therapy.
2. Data represent the unique number of clients with the demographic characteristic.
3. If a client falls under more than one category within a fiscal year, they are counted under each category.
4. Eligibility demographic information: 8 Month Eligibility database, HHSC.

Appendix B. Fiscal Year 2013-2015 Adult SUD Diagnosis, Treatment, and Treatment Rate Data

Table 9: Number Diagnosed and Treated and Treatment Rates

Client Types	2013	2014	2015
Clients with SUD Diagnosis (with or without treatment)	59,339	59,909	65,690
Clients with Medical Treatment	3,477	3,890	4,529
Clients with Pharmacy Treatment	1,766	1,596	1,589
Clients with Pharmacy Treatment and No Medical Treatment	1,611	1,463	1,438
Total Unique Clients with Treatment (Medical or Pharmacy)	5,088	5,353	5,967
Treatment Rate for Clients with SUD Diagnosis (per 100)	8.57	8.94	9.08

Notes:

1. If an adult Medicaid client age 21 and older had a claim or encounter with an identified primary, secondary, or tertiary SUD diagnosis, then the client was included in the column identifying "Clients with a SUD Diagnosis." This column includes treated and untreated individuals. It excludes a nicotine dependency diagnosis, because the Medicaid program excludes coverage of SUD treatment in a chemical dependency treatment facility for solely nicotine dependency. Prior GEER SUD reviews included the nicotine dependency diagnosis in the range of SUD diagnoses.⁴⁷

⁴⁷ HHSC determined that prior LBB reviews included nicotine dependency diagnoses in the range of diagnosis codes considered a SUD. Upon further analysis, it was determined that approximately 57 percent of the population identified with a SUD diagnosis had solely a nicotine dependency diagnosis.

2. Individuals were included in the "Clients with Medical Treatment" column if they had a claim or managed care encounter with procedure codes specific to the SUD treatment benefit, as identified in the TMPPM, billed by a CDTF or a physician (for medication assisted treatment only).
3. To identify individuals with a prescribed medication treatment for a SUD, HHSC distinguished clients with a claim or encounter for specific national drug codes associated with prescriptions used primarily for SUD treatment, such as buprenorphine and naltrexone, as well as prescriptions that treat alcohol addiction, such as disulfiram and acamprosate calcium. (Methadone as a SUD treatment legally can be dispensed through an opioid treatment program only, so any methadone prescription dispensed through the pharmacy benefit was considered solely for pain.) Because pharmacy data does not include client diagnosis information, HHSC cross-referenced these claims to medical claims or encounters. Clients with a medical claim or encounter showing a primary, secondary, or tertiary diagnosis for a SUD were considered treated with a prescription medication through their pharmacy benefit. If the client had a pharmacy claim related to SUD treatment, and SUD treatment through their medical benefits, HHSC did not count them twice. Only those clients who showed pharmacy treatment but no medical treatment (i.e., no SUD treatment codes) were added to the count of treated clients.

Appendix C. Client Summary Including Tobacco Dependence Diagnosis

HHSC identified that the LBB GEER SUD review included the nicotine dependency diagnosis in the range of diagnosis codes considered a substance use disorder. Upon further analysis, it was determined that approximately 57 percent of the population identified with a SUD diagnosis had solely a nicotine dependency diagnosis. Following is the client summary with client counts and costs when tobacco dependence is included as a diagnosis.

Table 10: Number Diagnosed and Treated and Treatment Rates (Including Tobacco Dependence Diagnosis)

Client Types	2013	2014	2015
Clients with SUD Diagnosis (with or without treatment)	132,151	138,879	154,188
Clients with Medical Treatment	3,482	3,894	4,539
Clients with Pharmacy Treatment	2,001	1,793	1,824
Clients with Pharmacy Treatment and No Medical Treatment	1,846	1,660	1,673
Total Unique Clients with Treatment (Medical or Pharmacy)	5,328	5,554	6,212
Treatment Rate for Clients with SUD Diagnosis (per 100)	4.03	4.00	4.03

Table 11: Total Costs for Treated Clients Including Tobacco Dependence Diagnosis

Fiscal Year	Total Costs for Treated Clients				Average Costs per Treated Client		
	Treated Clients	Medical Costs	Pharmacy Costs	Total Costs	Total Cost	Medical Cost	Pharmacy Cost
2013	5,328	\$50,146,657.37	\$18,301,701.47	\$68,448,358.84	\$12,846.91	\$9,411.91	\$3,435.00
2014	5,554	\$51,736,728.90	\$17,824,841.21	\$69,561,570.11	\$12,524.59	\$9,315.22	\$3,209.37
2015	6,212	\$54,419,159.31	\$20,359,847.11	\$74,779,006.42	\$12,037.83	\$8,760.33	\$3,277.50

Table 12: Total and Average Treatment Costs Including Tobacco Dependence Diagnosis

Fiscal Year	Treatment Costs				Average Treatment Costs per Treated Client		
	Treated Clients	Medical Treatment Costs (SUD benefit claims)	Pharmacy Treatment Costs (for treatment drugs)	Total Treatment Costs	Total Treatment Cost	Medical Treatment Cost	Pharmacy Treatment Cost
2013	5,328	\$4,622,358.52	\$3,874,617.46	\$8,496,975.98	\$1,594.78	\$867.56	\$727.22
2014	5,554	\$5,827,969.02	\$3,395,662.87	\$9,223,631.89	\$1,660.72	\$1,049.33	\$611.39
2015	6,212	\$6,687,523.58	\$3,527,715.23	\$10,215,238.81	\$1,644.44	\$1,076.55	\$567.89

Table 13: Total and Average Non-Treatment Costs Including Tobacco Dependence Diagnosis

Fiscal Year	Non-Treatment Costs				Average Non-Treatment Costs per Treated Client		
	Treated Clients	Medical Costs	Pharmacy Costs	Total Costs	Total Cost	Medical Cost	Pharmacy Cost
2013	5,328	\$45,524,298.85	\$14,727,084.01	\$59,95,382.86	\$11,252.14	\$8,544.35	\$2,707.79
2014	5,554	\$45,908,759.88	\$14,429,178.34	\$60,337,938.22	\$10,863.87	\$8,265.89	\$2,597.98
2015	6,212	\$47,731,635.73	\$16,832,131.88	\$64,563,767.61	\$10,393.39	\$7,683.78	\$2,709.62

Table 14: Total and Average Cost for Non-Treated Clients

Fiscal Year	Total Costs for Non-Treated Clients				Average Costs per Non-Treated Client		
	Non-Treated Clients	Medical Costs	Pharmacy Costs	Total Costs	Total Cost	Medical Cost	Pharmacy Cost
2013	126,823	\$987,479,675.66	\$297,579,964.97	\$1,285,059,640.63	\$10,132.70	\$7,786.28	\$2,346.42
2014	133,325	\$997,233,254.88	\$309,267,479.85	\$1,306,500,734.73	\$9,799.37	\$7,479.72	\$2,319.65
2015	147,976	\$1,194,174,990.67	\$371,676,540.64	\$1,565,851,531.31	\$10,581.79	\$8,070.06	\$2,511.74

Notes:

1. Total costs for treated clients includes treatment costs, plus additional medical and pharmacy costs for the treated population for the fiscal year.
2. Non-treatment costs are all medical and pharmacy costs for the treated population, excluding SUD treatment.
3. This summary excludes costs for individuals with solely a nicotine dependence diagnosis.
4. The clients treated with a pharmacy treatment include those treated with SUD treatment prescriptions for both opiate abuse (e.g., naltrexone or buprenorphine) and alcohol abuse (disulfiram or acamprosate calcium).

Appendix D. Fiscal Year 2013-2015 Cost for Treated and Non-treated SUD Clients⁴⁸

Table 15: Total Costs for Treated Clients

Fiscal Year	Total Costs for Treated Clients				Average Costs per Treated Client		
	Treated Clients	Medical Costs	Pharmacy Costs	Total Costs	Total Cost	Medical Cost	Pharmacy Cost
2013	5,088	\$48,289,672.57	\$17,063,197.69	\$65,352,870.26	\$12,844.51	\$9,490.89	\$3,353.62
2014	5,353	\$50,238,260.04	\$16,832,571.32	\$67,070,831.36	\$12,529.58	\$9,385.07	\$3,144.51
2015	5,967	\$52,621,370.47	\$19,005,888.89	\$71,627,259.36	\$12,003.90	\$8,818.73	\$3,185.17

⁴⁸ Data Sources: Ad Hoc Query Platform Claim and EncBest Picture Universes, TMHP, Vendor Drug FFS Claims and MCO Encounters, HHSC, 8 Month Eligibility database, HHSC. Prepared by: Data Analytics, MCD, HHSC, July 2017

Table 16: Total and Average Treatment Costs

Fiscal Year	Treatment Costs			Average Treatment Costs per Treated Client			
	Treated Clients	Medical Treatment Costs (SUD benefit claims)	Pharmacy Treatment Costs (for treatment drugs)	Total Treatment Costs	Total Treatment Cost	Medical Treatment Cost	Pharmacy Treatment Cost
2013	5,088	\$4,621,805.82	\$3,450,358.44	\$8,072,164.26	\$1,586.51	\$908.37	\$678.14
2014	5,353	\$5,821,633.62	\$3,016,496.55	\$8,838,130.17	\$1,651.06	\$1,087.55	\$563.52
2015	5,967	\$6,686,528.42	\$3,040,434.97	\$9,726,963.39	\$1,630.13	\$1,120.58	\$509.54

Table 17: Total and Average Non-Treatment Costs

Fiscal Year	Non-Treatment Costs				Average Non-Treatment Costs per Treated Client		
	Treated Clients	Medical Costs	Pharmacy Costs	Total Costs	Total Cost	Medical Cost	Pharmacy Cost
2013	5,088	\$43,667,866.75	\$13,612,839.25	\$57,280,706.00	\$11,258.00	\$8,582.52	\$2,675.48
2014	5,353	\$44,416,626.42	\$13,816,074.77	\$58,232,701.19	\$10,878.52	\$8,297.52	\$2,581.00
2015	5,967	\$45,934,842.05	\$15,965,453.92	\$61,900,295.97	\$10,373.77	\$7,698.15	\$2,675.62

Table 18: Total and Average Cost for Non-Treated Clients

Fiscal Year	Total Costs for Non-Treated Clients				Average Costs per Non-Treated Client		
	Non-Treated Clients	Medical Costs	Pharmacy Costs	Total Costs	Total Cost	Medical Cost	Pharmacy Cost
2013	54,251	\$523,115,165.87	\$137,035,403.68	\$660,150,569.55	\$12,168.45	\$9,642.50	\$2,525.95
2014	54,556	\$509,817,743.12	\$133,657,757.57	\$643,475,500.69	\$11,794.77	\$9,344.85	\$2,449.92
2015	59,723	\$613,651,570.33	\$167,260,242.43	\$780,911,812.76	\$13,075.56	\$10,274.96	\$2,800.60

Notes:

1. Total costs for treated clients includes treatment costs, plus additional medical and pharmacy costs for the treated population for the fiscal year.
2. Non-treatment costs are all medical and pharmacy costs for the treated population, excluding SUD treatment.
3. This summary excludes costs for individuals with solely a nicotine dependence diagnosis.
4. The clients treated with a pharmacy treatment include those treated with SUD treatment prescriptions for both opiate abuse (e.g., naltrexone or buprenorphine) and alcohol abuse (disulfiram or acamprosate calcium).

Appendix E. Fiscal Year 2015 Summary of Average Monthly Per Client Costs

Table 19: Average Monthly Costs Including Pharmacy

	Average Monthly Per Client Costs (Non-SUD Services)	Average Monthly Per Client Costs (SUD Treatment)	Total Average Monthly Per Client Costs
Untreated Adults	\$1,559.03	NA	\$1,559.03
Treated Adults	\$1,218.82	\$191.52	\$1,410.35

Table 20: Average Monthly Costs Excluding Pharmacy⁴⁹

	Average Monthly Per Client Costs (Non-SUD Services)	Average Monthly Per Client Costs (SUD Treatment)	Total Average Monthly Per Client Costs
Untreated Adults	\$1,225.11	NA	\$1,225.11
Treated Adults	\$904.46	\$131.66	\$1,036.12

⁴⁹ Data comparable to the 2015 GEER SUD review, which excluded pharmacy.

Appendix F. Health Plan Performance Measures

Initiation of Alcohol and Other Drug Dependence Treatment

This measure assesses the percentage of members who initiate treatment through an inpatient alcohol and other drug (AOD) admission, outpatient visit, intensive outpatient encounter, or partial hospitalization⁵⁰ within 14 days of the diagnosis. Members age 18 and older are included here, consistent with the measure parameters.

Table 21: Health Plan Measure: IET

Plan	2013	2014	2015
STAR	36.83%	37.22%	38.05%
STAR+PLUS	34.49%	34.74%	36.38%

Engagement of Alcohol and Other Drug Treatment

The measure assesses the percentage of members who initiated treatment and who had two or more additional services with a diagnosis of AOD within 30 days of the initiation visit. Members 18 and older are included here.

Table 22: Health Plan Measure: AOD

Plan	2013	2014	2015
STAR	7.18%	6.71%	9.09%
STAR+PLUS	4.21%	4.35%	4.56%

Identification of Alcohol and other Drug Services

This measure identifies members with an AOD claim who received the following chemical dependency services during the measurement year: any service; inpatient, intensive outpatient or partial hospitalization;⁵¹ and outpatient or

⁵⁰ Partial hospitalization for SUD treatment is not a benefit of Texas Medicaid, but may be offered by an MCO on a case-by-case basis

⁵¹ See footnote #1.

emergency department services. Any services for members 18 and older are included here. Numbers represent the percent per member years.⁵²

Table 23: Health Plan Measure: IAD (STAR)

STAR	2013	2014	2015
18-24	3.73%	3.6%	3.58%
25-34	7.28%	6.52%	6.63%
35-64	9.86%	9.44%	7.2%
65+	1.70%	2.99%	0%

Table 24: Health Plan Measure: IAD (STAR+PLUS)

STAR+PLUS	2013	2014	2015
18-24	8.42%	7.02%	6.91%
25-34	14.68%	11.91%	11.05%
35-64	16.17%	15.06%	17.10%
65+	1.03%	1.33%	1.94%

⁵² Member years of enrollment are calculated as the cumulative member months divided by 12 months. A member month is one member being enrolled for one month. For example, an individual who is a member of a plan for a full year generates 12 member months and a family of five enrolled for six months generates (5 X 6) 30 member months.

Appendix G. Potentially Preventable Events

Potentially Preventable Emergency Department Visits

Emergency treatment for a condition that could have been treated or prevented by a physician or other health care provider in a nonemergency setting. Members age 19 and older are included. The SUD-related Enhanced Ambulatory Patient Groupings include:

- Opioid abuse and dependence
- Alcohol abuse and dependence
- Cocaine abuse and dependence
- Other drug abuse and dependence

Table 25: Health Plan Measure: STAR Potentially PPVs

	2013	2014	2015
Events	1,209	1,123	1,003
Cost	\$536,303	\$480,983	\$431,949

Table 26: Health Plan Measure: STAR+PLUS Potentially PPVs

	2013	2014	2015
Events	2,435	3,239	4,385
Cost	\$1,426,477	\$1,685,289	\$2,319,083

Potentially Preventable Admissions

A hospital admission or a long-term care facility stay that might have been reasonably prevented with adequate access to ambulatory care or health care coordination. Members 19 and older are included here. The SUD-related diagnosis related groups (DRGs) include:

- Opioid abuse and dependence
- Alcohol abuse and dependence
- Alcohol and drug dependence with rehabilitation or rehabilitation/detoxification therapy
- Cocaine abuse and dependence

- Other drug abuse and dependence
- Drug and alcohol abuse or dependence, left against medical advice

Table 27: Health Plan Measure: STAR PPAs for SUD-related DRGS

	2013	2014	2015
Events	71	65	47
Cost	\$266,191	\$200,292	\$185,436

Table 28: Health Plan Measure: STAR+PLUS PPAs for SUD-related DRGS

	2013	2014	2015
Events	231	240	234
Cost	\$764,354	\$861,183	\$789,831

Potentially Preventable Readmissions

A return hospitalization within a set time period that might have resulted from problems in care during a previous hospital stay or from deficiencies in post-hospital discharge follow-up. Members age 19 and older are included here. SUD-related DRGs include:

- Opioid abuse and dependence
- Alcohol abuse and dependence
- Alcohol and drug dependence rehabilitation or rehabilitation/detoxification therapy
- Cocaine abuse and dependence
- Other drug abuse and dependence

Table 29: MCO Measure: STAR Potentially Preventable Readmissions

	2013	2014	2015
Events	62	60	56
Cost	\$260,224	\$190,744	\$217,551

Table 30: MCO Measure: STAR+PLUS Potentially Preventable Readmissions

	2013	2014	2015
Events	158	148	178
Cost	\$839,984	\$758,958	\$956,318

Appendix H. Opiate Drug Claims for Fiscal Years 2013-2015: Clients with SUD Treatment in Fiscal Year 2015⁵³

The unique clients treated in fiscal year 2015 with an opiate drug claim in the past three years are as follows:

- Unique clients with either medical or pharmacy SUD treatment in fiscal year 2015: 5,967
- Number of unique clients in fiscal year 2015 with SUD treatment (medical or pharmacy) having a non-SUD treatment opiate claim at some point in the last 3 years: 4,090
- Percentage of fiscal year 2015 treated clients having a non-SUD treatment opiate claim in the last 3 years: 69%

Table 31: Fiscal Year 2015 Clients with SUD Treatment by Number of Clients with Non-Treatment Opiate Claims from FYs 2013-2015⁵⁴

FY	Number of Clients with Non-Treatment Opiate Claims	Number of Non-Treatment Opiate claims	Clients with Non-Treatment Opiate Claims	Percent of Non-Treatment Opiate Claims by Year	Average Claims per Client per Year
2013	2,343	18,519	39%	37%	7.90
2014	2,621	17,205	44%	35%	6.56
2015	2,886	14,071	48%	28%	4.88

⁵³ Data Sources: Vendor Drug FFS Claims and MCO Encounters, HHSC. Prepared by: Data Analytics, MCD, HHSC, July 2017. Filename: Non-Treatment Opiates for fiscal year 2015 Treated Clients.xlsx

⁵⁴ Data is for clients with SUD treatment in fiscal year 2015 only. HHSC's Data Analytics staff looked at the SUD treated clients in 2015, and looked back at fiscal years 2013-2015 for a history of non-SUD treatment opiate claims for these treated clients.

Table 32: Top Non-Treatment Opiates prescribed by Generic Drug Name

DRUG NAME	Claims	Clients	Percent of all opiate claims	Percent of clients with opiate drug claim
HYDROCODONE / ACETAMINOPHEN	28,041	3,140	56%	77%
TRAMADOL HCL	10,479	2,226	21%	54%
ACETAMINOPHEN WITH CODEINE	4,126	1,717	8%	42%
OXYCODONE HCL	1,347	122	3%	3%
METHADONE HCL	1,292	158	3%	4%
MORPHINE SULFATE	912	107	2%	3%
FENTANYL	609	84	1%	2%
HYDROMORPHONE HCL	575	86	1%	2%
BUPRENORPHINE	548	133	1%	3%
TRAMADOL HCL/ACETAMINOPHEN	518	284	1%	7%
HYDROCODONE / IBUPROFEN	492	189	1%	5%
OXYCODONE HCL / ACETAMINOPHEN	437	119	1%	3%
OXYMORPHONE HCL	166	20	0%	0%
BUTORPHANOL TARTRATE	73	5	0%	0%
PENTAZOCINE HCL / NALOXONE HCL	69	38	0%	1%
BUTALBITAL / ACETAMINOPHEN / CAFFEINE / CODEINE	58	23	0%	1%
CODEINE / BUTALBITAL / ASA / CAFFEINE	23	9	0%	0%
NALBUPHINE HCL	13	1	0%	0%
OPIUM / BELLADONNA ALKALOIDS	7	1	0%	0%

DRUG NAME	Claims	Clients	Percent of all opiate claims	Percent of clients with opiate drug claim
TAPENTADOL HCL	6	4	0%	0%
MORPHINE SULFATE / NALTREXONE	2	1	0%	0%
DIHYDROCODEINE BITARTRATE / ACETAMINOPHN /CAFFEINE	1	1	0%	0%
MEPERIDINE HCL	1	1	0%	0%
Total	49795	4,090		

Table 33: Number of Non-Treatment Opiate Claims by the Number of Days' Supply

Number of Days' Supply	Claims	Clients	Percentage of Claims
1	451	341	1%
2	2,590	1,324	5%
3	4,221	1,865	8%
4	2,302	1,264	5%
5	4,076	1,852	8%
6	607	413	1%
7	1,983	1,018	4%
8	1,070	585	2%
9	84	58	0%
10	2,250	979	5%
11	88	62	0%
12	328	176	1%
13	212	132	0%

Number of Days' Supply	Claims	Clients	Percentage of Claims
14	405	209	1%
15	3,795	942	8%
16	143	67	0%
17	174	57	0%
18	60	34	0%
19	30	22	0%
20	1,653	513	3%
21	73	46	0%
22	435	174	1%
23	460	159	1%
24	79	33	0%
25	728	219	1%
26	82	25	0%
27	86	49	0%
28	783	178	2%
29	46	21	0%
30	20,231	1,713	41%
31	107	36	0%
33	78	24	0%
34	71	34	0%
35	2	2	0%
45	4	2	0%
50	1	1	0%

Number of Days' Supply	Claims	Clients	Percentage of Claims
60	4	4	0%
90	3	3	0%
TOTAL	49,795		

Notes:

1. Clients are those who received SUD medical or drug treatment in fiscal year 2015.
2. Drug claims represent any non-treatment opiate these clients received during fiscal years 2013-2015.
3. Claims are the unique count by client, prescriber, National Drug Code, fill date, prescription number, and pharmacy
4. Unless otherwise stated, data represent all three years combined.