

# **Evaluation Methodology Report for Cost Effectiveness of Substance Use Disorder**

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**House Bill 1  
General Appropriations Act  
Article II, Health and Human Services  
Commission, Rider 44**

**84<sup>th</sup> Legislature  
Regular Session, 2015**

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**TABLE OF CONTENTS**

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EXECUTIVE SUMMARY ..... 1

INTRODUCTION ..... 3

PROPOSED EVALUATION METHODOLOGY ..... 5

CONCLUSION..... 7

## EXECUTIVE SUMMARY

The General Appropriations Act, H.B. 1, 84<sup>th</sup> Legislature, Regular Session, 2015 (Article II, Health and Human Services Commission, Rider 44), directs HHSC to “...*evaluate the impact on overall Medicaid spending and client outcomes of substance use disorder treatment services provided under Medicaid to persons who are at least 21 years of age.*” A progress report on the evaluation methodology is to be submitted to the Legislative Budget Board (LBB) and the Office of the Governor by December 1, 2015, and a report on the evaluation findings, if complete, or a status report if the evaluation is incomplete, is due to the LBB and the Office of the Governor by December 1, 2016. Following is the progress report on the evaluation and its methodology.

A review in the 2009 LBB Government Effectiveness and Efficiency Report (GEER) found that an individual with a substance use disorder (SUD) has twice the health costs as a person without a SUD, and that future health care costs tend to decline with treatment. Therefore, the 2009 GEER recommended legislative action to create a comprehensive SUD benefit for adults in Medicaid. Medically necessary SUD treatment already was available in the Texas Medicaid program to individuals under age 21.

Beginning September 1, 2010, HHSC implemented SUD treatment benefits for adults over age 21, per direction from the General Appropriations Act, S.B. 1, 81<sup>st</sup> Legislature, Regular Session, 2009 (Article II, Health and Human Services Commission; Article IX, Section 17.15).

The 2009 legislation creating the adult SUD benefit required LBB staff to conduct a cost effectiveness analysis to determine if the amount spent on SUD treatment for adults increased overall Medicaid spending for those clients. If so, the legislation directed HHSC to stop offering treatment services through the Medicaid SUD benefit to adult clients.

The LBB analysis was included in the LBB’s 2015 GEER SUD review. It noted that due to data limitations, a complete analysis could not be conducted and recommended the legislature direct HHSC to do a thorough analysis. That GEER recommendation was incorporated into the General Appropriations Act, H.B. 1, 84<sup>th</sup> Legislature, Regular Session, 2015 (Article II, Health and Human Services Commission, Rider 44).

To the extent possible, HHSC will replicate the analyses 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, adult clients with a SUD diagnosis who did not receive Medicaid SUD treatment, 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, as well as utilization trends. HHSC’s analyses will contain more recent years of Medicaid SUD data, and will also include outcome data contained in health plan-reported Healthcare Effectiveness Data and Information Set (HEDIS) and National Committee for Quality Assurance (NCQA) measures. In addition, relevant vendor drug data — as well as data from the Department of State Health Services (DSHS) contractors for the Substance Abuse Treatment and Prevention Grant, who may

also provide SUD treatment to Medicaid clients — will be examined and evaluated for data matching with Medicaid SUD data.

## INTRODUCTION

### *What is a Substance Use Disorder?*

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."<sup>1</sup> The Substance Abuse and Mental Health Administration (SAMHSA) states 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."<sup>2</sup>

SAMHSA reports that "substance use alone is estimated to cost Americans more than \$600 billion each year." According to SAMHSA, as of 2014, an estimated 22.5 million Americans aged 12 and older self-reported needing treatment for alcohol or illicit drug use.<sup>3</sup>

The Diagnostic Statistical Manual (DSM), Fifth Edition, made changes to how substance use disorders are classified. Substance abuse and substance dependence are no longer separated; rather, SUDs are defined as mild, moderate, or severe, based on the number of diagnostic criteria that are met.

### *Past Texas State of Government Effectiveness and Efficiency Reports (GEER)*

The LBB produced GEER recommendations related to substance use disorder treatment for adults in 2009, 2011, and 2015. At the time the 2009 GEER was written, fewer than 25 percent of the 47,663 adult Texas Medicaid clients with a SUD diagnosis received any treatment in fiscal year 2006, and access to treatment was limited to value-added services offered by Medicaid managed care organizations, Substance Abuse Treatment and Prevention grant services, the NorthSTAR program in the Dallas area only, and hospital-based detoxification. The 2009 report recommended HHSC:

- 1) Provide comprehensive substance abuse treatment coverage to adult clients in Medicaid, and
- 2) Conduct an evaluation of the cost-effectiveness of providing comprehensive SUD treatment to adults and discontinue coverage if the services are found to be ineffective and result in the overall spending increases.

HHSC began offering substance use disorder treatment services using existing appropriations on September 1, 2010, per legislative direction from the General Appropriations Act, S.B. 1, 81<sup>st</sup> Legislature, Regular Session, 2009 (Article IX Section 17.15). HHSC defines adults as

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<sup>1</sup> "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>

<sup>2</sup> "Substance Abuse and Mental Health Services Administration (SAMHSA): Substance Use Disorders" October 27, 2015 <http://www.samhsa.gov/disorders/substance-use>

<sup>3</sup> "Substance Abuse and Mental Health Services Administration (SAMHSA): Prevention of Substance Abuse and Mental Illness," October 30, 2015 <http://www.samhsa.gov/prevention>

individuals ages 21 and older. The bill further specified that the services could not continue if the LBB determined that the treatment costs for adult Medicaid SUD resulted in overall increases in Medicaid spending, and directed HHSC to analyze and provide data related to the provision of SUD treatment services to the LBB.

The adult SUD services, as implemented, include:

- Assessment (once per episode of care)
- Outpatient treatment/counseling (26 hours of individual counseling per calendar year; 135 hours of group counseling per calendar year)
- Medication assisted therapy (one dose per day, includes medications such as methadone and buprenorphine for opioid addiction)
- Residential treatment (up to 35 days per episode of care, with a maximum of 2 episodes of care per rolling 6-month period, and 4 episodes of care per rolling year.)
- Residential detoxification (up to 21 days)
- Ambulatory detoxification (up to 21 days)

All services were available through Medicaid managed care plans effective September 1, 2010. However, in traditional, fee-for-service Medicaid and the legacy Primary Care Case Management program, residential treatment and detoxification services (ambulatory and residential) were not effective until January 1, 2011. Only Chemical Dependency Treatment Facilities (CDTFs) licensed by DSHS can be reimbursed by Medicaid for SUD services (in traditional fee-for-service, as well as managed care), with the exception of physician provider types for medication-assisted therapy (e.g., methadone for opiate addiction).

The 2011 GEER recommendation outlined the structure of the cost-effectiveness analysis the LBB staff intended to provide by the 2013 83<sup>rd</sup> regular session, including an analysis of the amount spent on Medicaid-funded SUD services and a comparison of utilization and spending between treated and non-treated groups with Medicaid.

The 2015 GEER, based on an analysis of SUD services provided from fiscal years 2011 and 2012, found that 189,506 adults with Medicaid had a SUD diagnosis on a claim or encounter. However, only 2.2 percent of these clients, or 4,141 clients, received SUD treatment through Medicaid. The GEER recommendation included data that the total average monthly per-client spending for adults with an identified SUD decreased from \$900 before treatment to \$818 after SUD treatment.

## **PROPOSED EVALUATION METHODOLOGY**

The 2015 GEER recommendation concluded a complete analysis of the overall costs for SUD treatment of adults receiving Medicaid was not possible, due to a number of factors, including:

- Complete data for adult clients receiving Medicaid SUD services were only available for the first two fiscal years of program implementation, 2011 and 2012.
- Not all adult SUD treatment services were available at the initial implementation.
- The Medicaid data system is not structured to track clients across time, and differences in the claims/encounter and Vendor Drug data systems make client-level data matching difficult and potentially unreliable.
- There was no severity adjustment by diagnosis and other client characteristics that could affect comparability between the treated and untreated groups.
- Reliability of client level data is potentially impacted by the cleaning and assembly of the different data systems, as well as the fact that clients may have data in both FFS and MCO systems. There are also reliability issues with financial variables in the MCO encounter data systems, and issues of non-uniform coding.

For the proposed evaluation, HHSC will address similar aspects of the January 2015 GEER SUD review. However, the primary data sources for that review remain the same, so some of the data limitations remain. Primary sources for diagnosis and expenditure data include:

- Fee-for-service claims data, and
- Managed care encounter data (based on claims submitted to a health plan).

Not every provider consistently submits a claim, so claims and encounters may not fully represent the amount of services being provided.

### ***Plan for Data Analysis***

A complete analysis will be conducted using data for fiscal years 2013-15. The 2015 GEER SUD review noted fiscal year 2011 included months before the SUD benefit was fully implemented. The HHSC analysis will allow more years of data to be analyzed to determine emerging utilization and cost trends.

The inability to track clients over time is a recognized data limitation because clients cycle on and off Medicaid. HHSC could not document if the client had no services, paid for services out of pocket, received locally-funded services, or had private insurance when not enrolled in Medicaid.

Similar to the analysis in the 2015 GEER SUD review, HHSC will provide information on the following to facilitate review of baseline and trend data:

- Number of adult Medicaid clients with an identified 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 a Medicaid-funded adult SUD treatment service.

- Number of clients with a SUD diagnosis listed on a Medicaid claim or encounter who received opioid prescriptions, and later showed SUD treatment.
- An examination of vendor drug data for evidence of SUD treatment via a review of certain related SUD medications.
- Overall program penetration / utilization rate.
- Comparison of overall Medicaid costs between adult clients with a SUD who received no Medicaid SUD treatment, and adult clients with a SUD who received Medicaid SUD treatment.

In addition, HHSC will explore and attempt to incorporate relevant outcome data. There are limitations to what HHSC can analyze, because Medicaid does not require providers to report outcome measures. However, Managed Care Organizations collect HEDIS and NCQA performance measures such as the following:

- *Initiation of Alcohol and Other Drug Dependence Treatment (IET)*. 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 hospitalization within 14 days of the diagnosis.<sup>4</sup>
- *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.<sup>5</sup>
- *Identification of Alcohol and other Drug Services (IAD)*. This measure summarizes of the number and percentage of members with an AOD claim who received the following chemical dependency services during the measurement year: any service, inpatient, intensive outpatient or partial hospitalization, and outpatient or emergency department.<sup>6</sup>
- Additionally, HHSC will coordinate with the DSHS to review the SAPT (Substance Abuse Treatment and Prevention grant providers' database, including analyses of any possible SUD-related outcome metrics that may be employed, matched, etc.

Moreover, HHSC will further explore best practices in Medicaid SUD treatment. HHSC is currently participating in a Centers for Medicare & Medicaid Services (CMS), multi-state SUD High Intensity Learning Collaborative. This collaborative initiative provides Texas with helpful information from experts in the field of SUD treatment, as well as best practices from other states regarding ways to improve utilization, match related data sources, determine the best program metrics, improve data collection and outcomes measures, and more.

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<sup>4</sup> <http://www.qualitymeasures.ahrq.gov/content.aspx?id=48683>

<sup>5</sup> <http://www.qualitymeasures.ahrq.gov/content.aspx?id=48684>

<sup>6</sup> <http://www.qualitymeasures.ahrq.gov/content.aspx?id=48735>

## **CONCLUSION**

The methodology for the Report on Program Spending and Client Outcomes for Adults Receiving Medicaid SUD Treatment Services required by Rider 44 will replicate the research used in the 2015 GEER recommendations. However, the HHSC report will update the time period evaluated to fiscal years 2013-2015. The report will provide more current data since the 2015 GEER review by necessity used information from fiscal years 2010-2012, which included four months before the SUD benefits were fully implemented. The updated data set will be analyzed to determine emerging utilization and cost trends.

In addition to the key indicators to be assessed, the HHSC report will incorporate data MCOs gather for nationally required quality reports and best practices obtained from participating in a CMS learning collaborative with other states.

The study is scheduled to be complete by the December 1, 2016 deadline.