



# Real-World Health Care Cost of Substance Abuse for Patients Receiving Face-to-Face Therapy vs. Without Therapy

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# Background

- Substance use disorders (SUD) are heterogeneous conditions characterized by recurrent maladaptive use of a psychoactive substance associated with significant distress and disability
- Face-to-face (FTF) therapy, either individually or in group settings, is one of the many treatment options available for SUD
- This study aimed to quantify the costs of SUD and assess differences between patients who received FTF therapy and those that did not

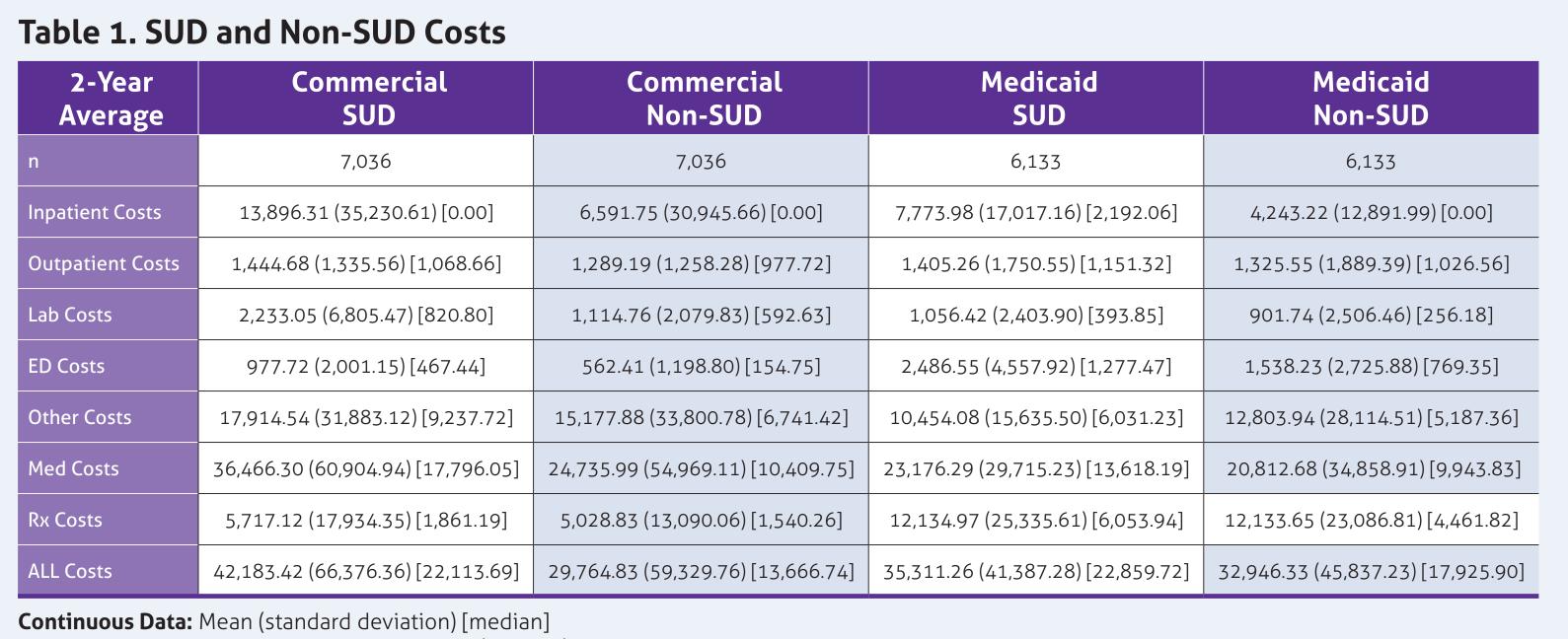
# Methods

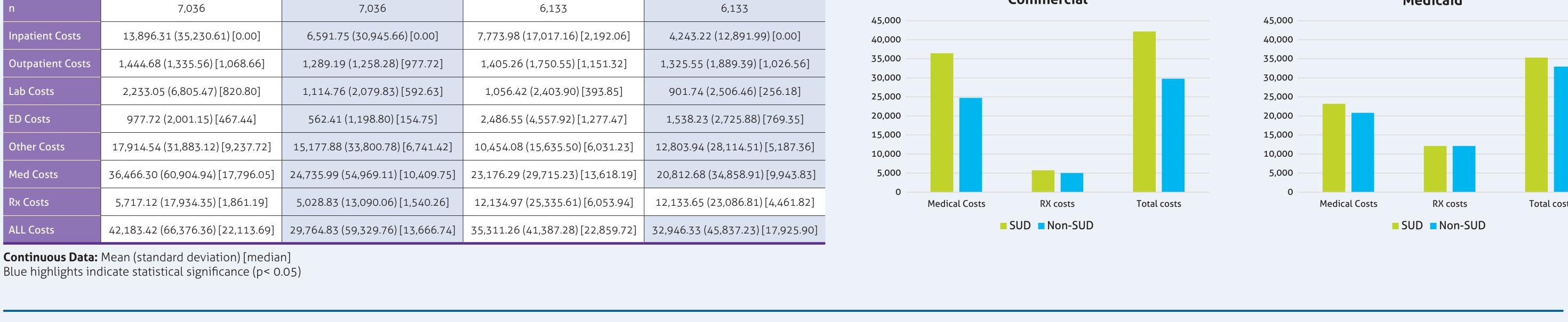
- This retrospective study analyzed 1/1/2011-7/31/2016 for Medicaid and commercially-insured patients continuously enrolled for 6 months pre- and 2 years post-index date
- The index date was the first medical claim with a diagnosis of mental health disorder. Qualifying patients were ≥18 years old with ≥2 paid medical claims
- Each patient was categorized based on substance use (SUD or non-SUD)
- SUD patients were categorized therapy were excluded
- matched according to propensity generated with means provided for

- medical and pharmacy claims data from
- according to receipt of therapy (FTF or non-FTF) and those on buprenorphine
- In each category, patients were scores and descriptive statistics were continuous variables

# Results

- A total of 14,072 commercially insured and 12,266 Medicaid patients met the inclusion criteria
- Mean 2 year total costs were \$42,183 (SUD) and \$29,764 (non-SUD) (p<0.001) for commercial patients and \$35,311 (SUD) and \$32,946 (non-SUD) (p=0.003) for Medicaid patients (Table 1, Figure 1)
- Total costs were \$43,325 (FTF) and \$40,501 (non-FTF) (p=0.1696) for commercial patients and \$42,944 (FTF) and \$36,591 (non-FTF) (p<0.001) for Medicaid patients (Table 2, Figure 2)
- Of the patients receiving FTF therapy, 44% and 22% of the commercially insured and Medicaid patients respectively received at least 12 sessions





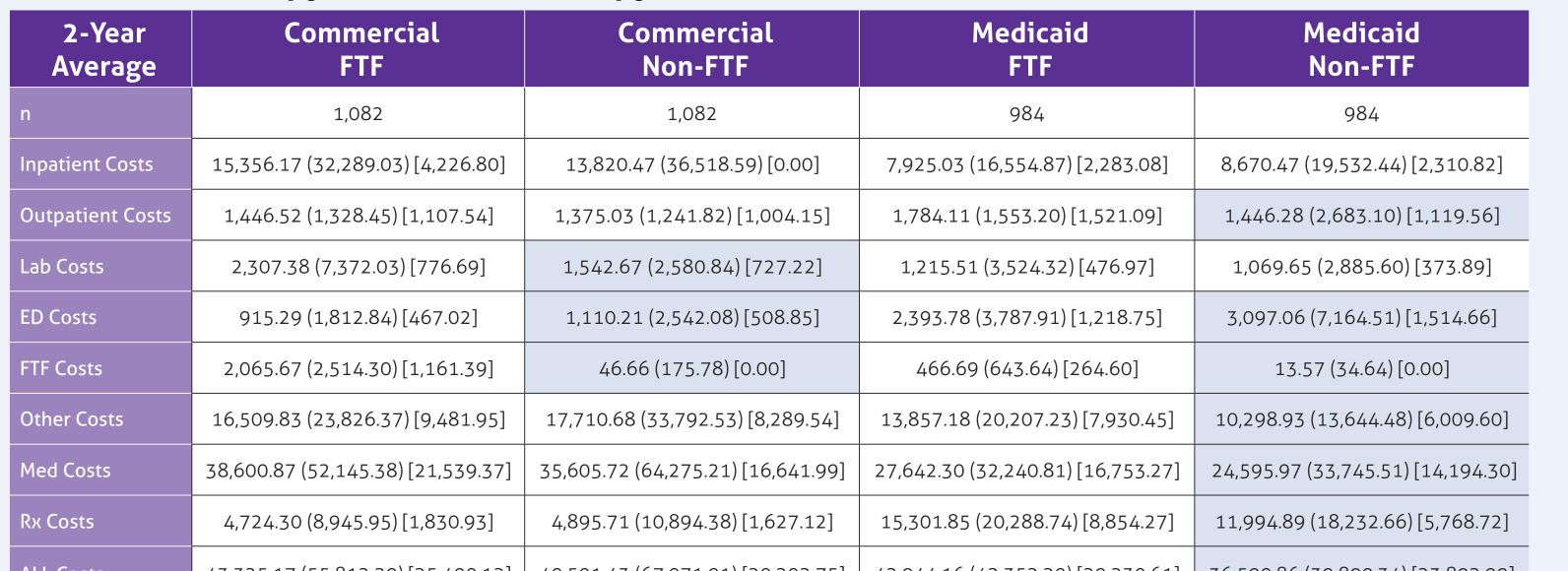
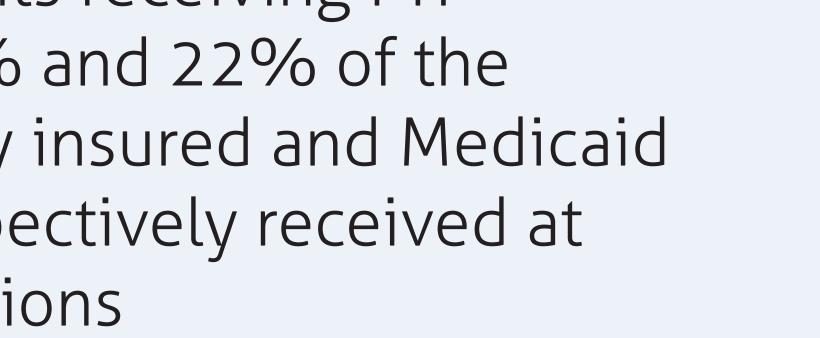


Table 2. FTF Therapy and Non-FTF Therapy Costs

Blue highlights indicate statistical significance (p< 0.05)



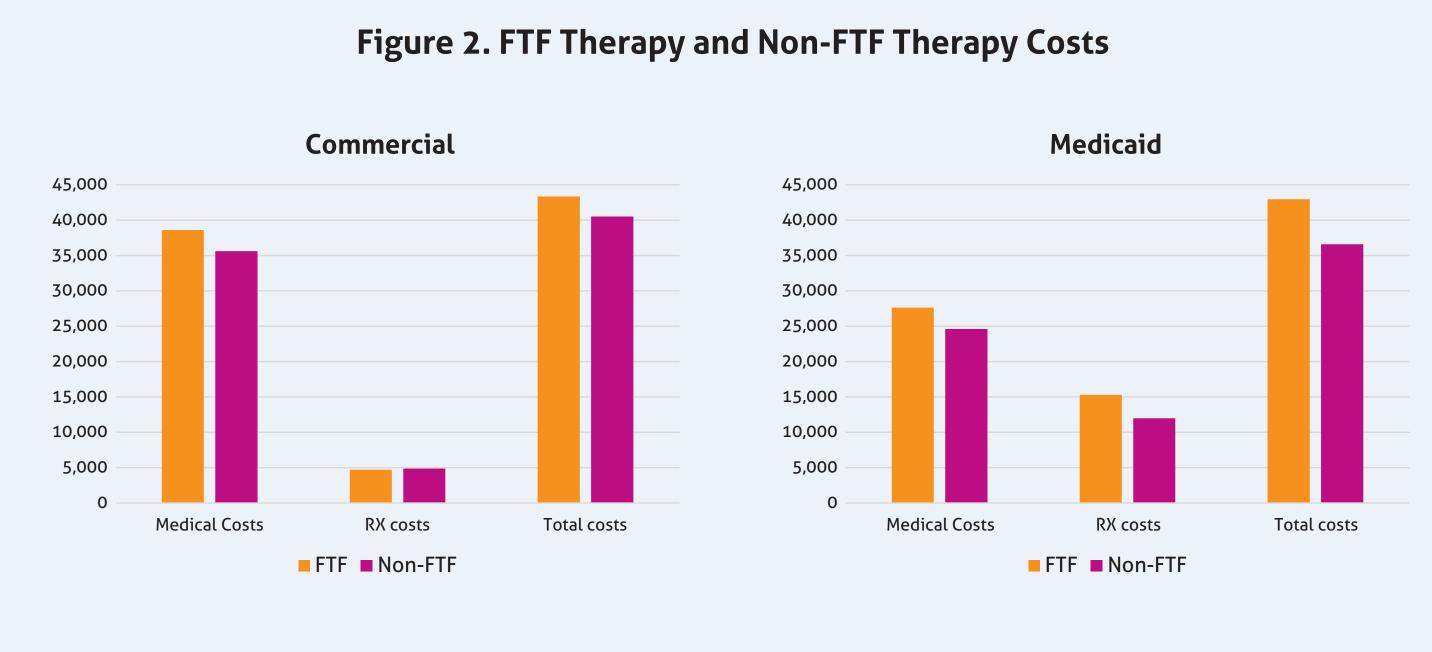


Figure 1. SUD and Non-SUD Costs

Table 3. SUD and Non-SUD Healthcare Resource Use						
2-Year Average	Commercial SUD	Commercial Non-SUD	Medicaid SUD	Medicaid Non-SUD		
Inpatient Visits	0.96 (2.38) [0.54]	0.37 (1.84) [0.00]	1.62 (2.67) [0.83]	0.75 (1.71) [0.00]		
ALOS (days)	2.85 (4.92) [1.50]	1.33 (4.14) [0.00]	5.05 (8.08) [3.55]	3.54 (10.27) [2.18]		
Outpatient Visits	20.12 (18.45) [15.00]	17.97 (15.07) [14.00]	21.04 (16.21) [18.00]	19.49 (15.25) [16.00]		
Lab Visits	10.04 (12.12) [6.67]	7.06 (8.07) [4.97]	6.44 (5.79) [5.00]	5.79 (5.92) [4.55]		
ED Visits	1.83 (3.33) [0.96]	0.99 (1.87) [0.59]	8.40 (12.05) [5.15]	5.45 (8.00) [3.36]		
Rx Per Patients	16.39 (12.85) [13.20]	13.70 (10.38) [11.20]	23.08 (16.45) [21.99]	20.53 (16.38) [19.36]		

	2.85 (4.92) [1.50]	1.33 (4.14) [0.00]	5.05 (8.08) [3.55]	3.54 (10.27) [2.18]	ALOS (days)	3.46 (5.58) [1.85]	2.74 (4.91) [1.37]	5.58 (8.29) [3.7
	20.12 (18.45) [15.00]	17.97 (15.07) [14.00]	21.04 (16.21) [18.00]	19.49 (15.25) [16.00]	Outpatient Visits	20.01 (17.01) [16.00]	19.22 (17.00) [15.00]	27.68 (18.37) [25
	10.04 (12.12) [6.67]	7.06 (8.07) [4.97]	6.44 (5.79) [5.00]	5.79 (5.92) [4.55]	Lab Visits	10.24 (11.78) [6.94]	8.80 (10.34) [6.00]	7.39 (6.47) [5.8
	1.83 (3.33) [0.96]	0.99 (1.87) [0.59]	8.40 (12.05) [5.15]	5.45 (8.00) [3.36]	ED Visits	1.83 (3.14) [1.07]	1.97 (3.68) [1.07]	8.33 (12.06) [4.8
	16.39 (12.85) [13.20]	13.70 (10.38) [11.20]	23.08 (16.45) [21.99]	20.53 (16.38) [19.36]	Rx Per Patients	16.86 (12.92) [13.87]	16.19 (12.08) [13.40]	26.66 (18.59) [25
ength	n (standard deviation) [media of Stay e statistical significance (p< 0	-			ALOS: Average Length	n (standard deviation) [medial of Stay e statistical significance (p< 0.	-	

Metric	Commercial SUD	Commercial Non-SUD	Medicaid SUD	Medicaid Non-SUD
n	7,036	7,036	6,133	6,133
Female	3,072 (44%)	3,072 (44%)	4,768 (78%)	4,768 (78%)
Male	3,964 (56%)	3,964 (56%)	1,365 (22%)	1,365 (22%)
Average Age	41.78 (14.16) [42]	41.78 (14.16) [42]	39.07 (11.95) [38]	39.07 (11.95) [38]
Average CCI	0.36 (0.94) [0]	0.37 (1.00) [0]	1.61 (2.14) [1]	1.59 (2.10) [1]
MDD	3,961 (56%)	3,961 (56%)	4,000 (65%)	4,000 (65%)

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2-Year Average	Commercial FTF	Commercial Non-FTF	Medicaid FTF	Medicaid Non-FTF
Inpatient Visits	1.09 (1.70) [0.63]	0.86 (1.50) [0.53]	1.61 (2.44) [0.81]	1.78 (3.11) [0.83]
ALOS (days)	3.46 (5.58) [1.85]	2.74 (4.91) [1.37]	5.58 (8.29) [3.73]	5.23 (11.58) [3.74]
Outpatient Visits	20.01 (17.01) [16.00]	19.22 (17.00) [15.00]	27.68 (18.37) [25.00]	20.87 (15.02) [18.00]
Lab Visits	10.24 (11.78) [6.94]	8.80 (10.34) [6.00]	7.39 (6.47) [5.83]	6.09 (5.12) [4.85]
ED Visits	1.83 (3.14) [1.07]	1.97 (3.68) [1.07]	8.33 (12.06) [4.83]	9.42 (14.35) [5.62]
Rx Per Patients	16.86 (12.92) [13.87]	16.19 (12.08) [13.40]	26.66 (18.59) [25.54]	24.08 (16.83) [23.95]
Continuous Data: Mea	nn (standard deviation) [mediar	n]		

Table 4. FTF Therapy and Non-FTF Therapy Healthcare Resource Use

## Table 6. FTF and Non-FTF Demographics

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Metric	Commercial FTF	Commercial Non-FTF	Medicaid FTF	Medicaid Non-FTF	
n	1,802	1,802	984	984	
Female	832 (46%)	832 (46%)	809 (82.2%)	809 (82.2%)	
Male	970 (54%)	970 (54%)	175 (17.8%)	175 (17.8%)	
Average Age	42.25 (13.84) [45]	42.25 (13.84) [45]	39.89 (11.66) [40]	39.89 (11.66) [40]	
Average CCI	0.30 (0.87) [0]	0.29 (0.81) [0]	1.84 (2.36) [1]	1.79 (2.23) [1]	
MDD	1,268 (70%)	1,268 (70%)	766 (78%)	766 (78%)	

# Conclusion

- For both commercially insured and Medicaid patients, healthcare resource utilization (HCRU) and costs are higher for patients with mental health disorders and SUD than those without SUD
- In the commercially-insured population, patients diagnosed with SUD and receiving FTF therapy have similar overall HCRU and costs to patients not receiving FTF therapy
- In the Medicaid population, patients diagnosed with SUD and receiving FTF therapy have higher costs than patients not receiving FTF therapy. Possible capitation payments are not captured in this analysis
- Less than half of the patients with commercial insurance coverage and less than a third of the patients with Medicaid coverage receiving FTF therapy had received the recommended 12 minimum sessions.<sup>1</sup> Consequently, FTF therapy is not bending the cost curve
- Options to help ensure adequate therapy could be of clinical benefit to patients and financial benefit to payers

1. Center for Substance Abuse Treatment. Substance Abuse: Clinical Issues in Intensive Outpatient Treatment. Rockville (MD): Substance Abuse and Mental Health Services Administration (US); 2006. (Treatment Improvement Protocol (TIP) Series, No. 47.) Chapter 3. Intensive Outpatient Treatment and the Continuum of Care.Available from: https://www.ncbi.nlm.nih.gov/ books/NBK64088/

 Quantify the clinical and economic burden of SUD and assess differences between patients who received FTF therapy and those who did not receive FTF therapy

# Disclosures

 This research was conducted by Magellan Rx Management, Scottsdale, AZ, with external funding from Pear Therapeutics