

# SUBSTANCE ABUSE DISORDER ROI SAVINGS

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# EXECUTIVE SUMMARY

Substance Use Disorder (SUD) presents significant challenges, including low treatment completion rates and a high risk of relapse even after successful treatment. One of the key drivers of SUD and relapse is loneliness, which traditional approaches often fail to address. This lack of continuous support can lead to a cycle of recovery and relapse, burdening both individuals and healthcare systems.

Sober Sidekick is an innovative app and social network specifically designed to address these challenges by providing continuous, accessible support for individuals with SUD. By facilitating 24/7 interaction within a supportive community, Sober Sidekick bridges the gaps in traditional treatment models. Its features—such as 24/7 Alcoholics Anonymous (AA) Zoom meetings, direct messaging, professional assistance, motivational content, and a sobriety counter—are all aimed at sustaining long-term recovery.

By fostering a sense of connection and accountability, and addressing the loneliness that often underpins SUD, Sober Sidekick not only empowers users to maintain sobriety but also has the potential to reduce healthcare costs by decreasing relapse rates and enhancing treatment adherence.

Charm Economics, an independent health economics evaluation organization with an expertise in digital health technologies and medical devices, has evaluated the potential cost savings from Sober Sidekick for SUD. Charm's analysis suggests that Sober Sidekick creates savings by reducing the utilization of healthcare services through a reduction in relapses. For individuals with SUD that experience one peer-to-peer interaction on the app, Sober Sidekick's estimated savings are \$7,959 per user per year. Sober Sidekick offers an opportunity for individuals with SUD to receive community support to maintain sobriety. Increased peer-to-peer interactions can reduce the rate of relapse and provide reductions in healthcare costs.

## ABOUT SOBER SIDEKICK

Sober Sidekick is an app and social network that helps users maintain their sobriety by connecting them with a community of people who can empathize with where they are. The app was created with a firm belief that members have the power to help each other. At the core of Sober Sidekick is the idea that the more support members give to other members, the more members receive in return. Even though all posts are anonymous, members' voices have strength. With something as simple as congratulating another person on a milestone in their sobriety, every member can have an impact on someone else's journey.

The app, available for download on Android and iOS devices, provides several features for users to connect with others in the sober community and receive support when needed. It offers 24/7 AA virtual meetings for users to join others in recovery. Users can communicate with health professionals when needed and support others through messaging. Direct messaging allows members to make sober friends and find accountability partners to stay on track with their sobriety goals. To further increase motivation, members receive daily motivational messages and can track their sobriety with a sobriety counter.

## CHARM ECONOMICS' FINANCIAL ANALYSIS

Charm Economics, an independent health economics evaluation organization with an expertise in digital health technologies and medical devices, has evaluated Sober Sidekick. Charm's analysis suggests that Sober Sidekick creates savings by reducing the utilization of healthcare services through a reduction in relapses.

## OBJECTIVE

The objective of this analysis was to quantify potential savings to the total cost of patient care that Sober Sidekick provides to users. This return-on-investment (ROI) is estimated using a combination of peer-reviewed health services literature, government data sources and Sober Sidekick user data to model the impacts of peer-to-peer interactions within the app.

# Sober Sidekick Improves Outcomes for Users Recovering from Substance Abuse Disorder

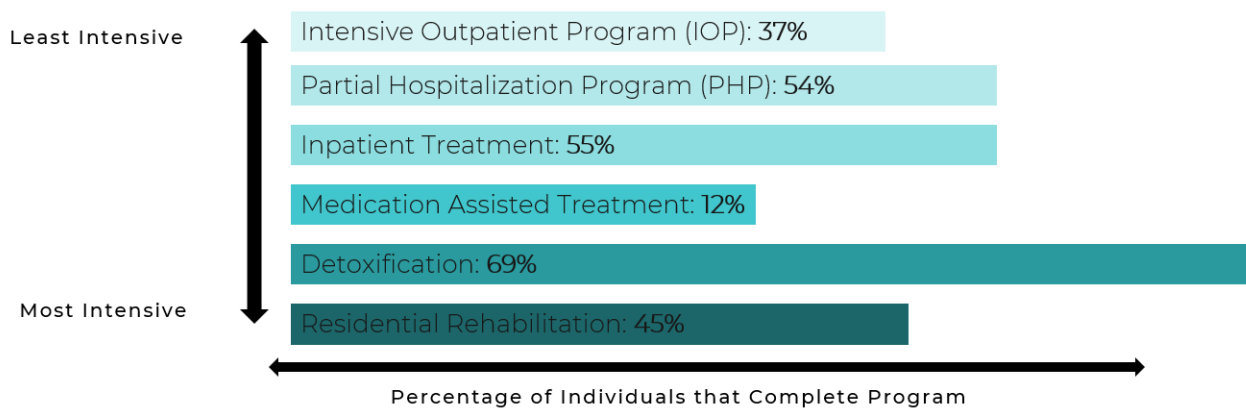
Substance Abuse Disorder (SUD) is a condition characterized by uncontrolled use of a substance despite harmful consequences.<sup>1</sup> Multiple types of treatment are used to treat SUD, including medication to control cravings, and psychotherapy to understand behaviors.<sup>2</sup> While these options can be successful in treating the condition, SUD is complex and individuals with the condition often go through cycles of addiction, treatment and relapse. Other forms of treatment, such as peer-support, may be implemented to disrupt this cycle and prevent relapse from occurring.

## The Economic Cost of Substance Abuse Disorder

Sober Sidekick has the potential to decrease the total costs of individuals with substance abuse disorder. As of 2021, there are 46.3 million individuals that experience substance abuse disorder in the U.S.<sup>3</sup> Though the number of individuals with SUD is significant, the number is likely larger due to unawareness of the condition and lack of diagnosis. **The total annual cost of SUD is \$87,242 per patient.**<sup>4</sup> The total cost of SUD is made up of tangible and intangible components. Tangible costs of substance abuse disorder are attributed to productivity loss, criminal justice, traffic collisions, health, social services, fires, and research prevention.<sup>5</sup> Intangible costs are attributed to quality of life lost, death, traffic collisions, and crime victims.<sup>6</sup>

Productivity loss is a consequence of substance abuse disorder with its own associated costs. Productivity loss is a measure of the resources lost for an individual due to substance abuse disorder. Individuals with SUD may experience productivity loss due to either being under the influence of a substance or having an increased focus on obtaining the substance. **In the U.S., the total annual productivity loss due to SUD is \$10,384 per patient.**<sup>7</sup> Costs due to crime and costs due to health such as medical treatment, diminished productivity, premature death, absenteeism, and SUD treatment contribute to productivity loss for individuals with substance abuse disorder.<sup>8</sup>

## Efficacy of Treatment for Substance Abuse Disorder



Individuals who undergo treatment for SUD have different treatment options. The treatment options vary in level of intensity and patient completion percentages. Treatment options for individuals with substance abuse disorder include an Intensive Outpatient Program (IOP), Patient Hospitalization Program (PHP), inpatient treatment, medication assisted treatment, detoxification and residential rehabilitation.<sup>9</sup> On average, only 45% of individuals are likely to complete their treatment.<sup>10</sup> Even upon the completion of treatment, 40–60% of individuals with substance abuse disorder relapse after the end of the treatment program.<sup>11</sup>

## Method

### *Pathway to Savings: Reduced Utilization of Relapse Services*

The primary pathway analyzed by which Sober Sidekick creates savings is reduction in relapse. A relapse is when an individual returns to using drugs or alcohol after a period of sobriety.<sup>12</sup> A relapse may result in an individual utilizing a medical service. A lack of relapse indicates that individuals are maintaining their sobriety, thus reducing their utilization of medical services required for detoxification such as outpatient services, residential services, hospital inpatient services, and other services used by individuals who relapse.

## Results: Rates of Relapse for Substance

Peer-to-peer interactions have a profound effect on reducing the number of relapses for users of Sober Sidekick with SUD. Health services research indicates that programs utilizing peer-support result in a 59% reduction in relapses.<sup>13</sup> Sober Sidekick user data shows that as the number of peer-to-peer interactions increases, the rate of self-reported relapse decreases. **One peer-to-peer interaction on Sober Sidekick leads to a 48.2% reduction in the rate of self-reported relapse.**<sup>14</sup>

Number of Peer-to-Peer Interactions	Rate of Reported Relapse	Reduction Due to Sober Sidekick
0	19.9%	0
1	10.3%	48.2%
2	9.06%	54.5%
3	7.73%	61.2%
4	7.95%	60.1%
5	7.97%	59.9%
7	6.99%	64.9%
9	6.95%	65.1%

Reduction in relapses found in the literature: **59%**



For the model, individuals with SUD experience an average of 1.48 relapses a year without Sober Sidekick with an average cost of treatment of \$11,187.<sup>15,16</sup> With one peer-to-peer interaction, Sober Sidekick can reduce the rate of self-reported relapse by 48.2%, creating savings of \$7,959 per actively engaged Sober Sidekick user per year. For 1,000 actively engaged users, Sober Sidekick can save \$7,958,807 in healthcare costs related to maintain sobriety.

The calculated savings apply to commercial insurance beneficiaries and cost savings vary by payor. The model accounts for the reduction in relapses that result from one peer-to-peer interaction on Sober Sidekick. Increased savings can be achieved by an increase in peer-to-peer interactions which is supported by Sober Sidekick user data illustrating increasing reduction rates with increased member peer-to-peer interactions.

		Total Cost Savings Per Actively Engaged User Per Year		
Number of Peer-to-Peer Interactions	Percent Reduction in Relapses	Medicaid	Medicare	Commercial
0	0%	\$0	\$0	\$0
1	48.2%	\$4,442	\$6,170	\$7,959
2	54.5%	\$5,023	\$6,976	\$8,999
3	61.2%	\$5,640	\$7,834	\$10,105
4	60.1%	\$5,539	\$7,693	\$9,924
5	59.9%	\$5,520	\$7,667	\$9,891
7	64.9%	\$5,981	\$8,307	\$10,716
9	65.1%	\$6,000	\$8,333	\$10,749

## Additional Benefits

Beyond cost savings from a reduction in relapses, Sober Sidekick provides several other benefits that are not quantified in this study. These areas include, but are not limited to, improved productivity, reduced absenteeism and presenteeism, and improved quality of life for individuals with SUD.

## Conclusion

Sober Sidekick offers significant improvements in patient outcomes and cost reduction for individuals with substance abuse disorder. Through the reduction of self-reported relapse, Sober Sidekick demonstrates potential annual savings of \$7,959 in cost savings per actively engaged user. Sober Sidekick is transforming the way individuals with SUD maintain their sobriety. By creating a platform that builds a sense of community, Sober Sidekick reminds users that sobriety takes a village and is not a path that needs to be taken alone. For individuals with SUD, Sober Sidekick can save tens of thousands of dollars in healthcare services related to treating relapses over the course of their lifetime.

# REFERENCES

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