

EXECUTIVE SUMMARY: OPISAFE STUDY IN COLORADO MEDICAID

Conducted by RxAssurance under contract with the Colorado Department of Healthcare Policy and Financing (HCPF)

PURPOSE: This study evaluated whether adoption of the **OpiSafe software system** by providers improves patient outcomes and reduces costs among Colorado Medicaid patients prescribed opioids.

METHODS:

- **Design:** Retrospective claims analysis (2016–2022) of Medicaid fee-for-service providers and patients receiving opioids
- **Cohort:** 864 providers and 9,996 opioid patients in the primary cost analysis; 639 providers and 10,940 newly initiated opioid patients in the secondary outcomes analysis
- **Data:** Hospital, emergency department, long-term care, outpatient, pharmacy, and ambulance claims
- **Analysis:** Comparative cohort and pre/post designs; t-tests with corrections for multiple comparisons, significance set at $p < 0.05$

KEY FINDINGS:

- **Direct Cost Savings:**
 - Average annual savings of **\$2,269 per patient** among providers who regularly used OpiSafe
 - These 864 providers generated **\$3M in annual savings for Medicaid** in this population
- **Cost Drivers:** Major reduction in inpatient claim costs, and significant reduction in outpatient and prescription claim costs (all statistically significant)
- **Clinical Outcomes:** Provider adoption of OpiSafe led to improved patient safety:
 - **78% reduction** in progression from new opioid use to chronic use
 - **89% reduction** in opioid-related side effects (coded on medical/pharmacy claims)
 - **93% reduction** in progression from new opioid use to opioid use disorder (OUD)

BUSINESS IMPACT FOR INSURERS:

- **Cost Containment:** Scalable reductions in direct medical spend per opioid patient
- **Risk Management:** Fewer progressions to chronic opioid use and OUD significantly lower long-term claims exposure
- **Member Health:** Improved safety, fewer complications, and better care coordination for at-risk populations

CONCLUSION: This Colorado Medicaid study demonstrated that OpiSafe adoption not only **lowers opioid-related risks** but also generates **meaningful, quantifiable savings** in healthcare costs. For insurers, these findings highlight a clear path to reduce claims volatility, improve patient outcomes, and achieve sustainable value in opioid management strategies.



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Table 1. Cost of Care Differences (Total and by Subcategory) for All Opioid Patients, by Provider Use of OpiSafe System

Cost Measure	Non-User (385 Providers, 2,270 Patients)	Regular User (479 Providers, 7,726 Patients)	Difference* (Savings)
Total Cost of Care (avg. per patient)	\$5,491.92	\$3,222.25	-\$2,269.67
Annualized Claim Cost (all patients)	\$5,635,900.96	\$2,643,989.77	-\$2,991,911.19
Monthly Claim Cost (all patients)	\$469,658.41	\$220,332.48	-\$249,325.93
--- Prescriptions ---			
Avg. Cost (per patient)	\$282.74	\$142.23	-\$140.51
Annualized Claim Cost (all patients)	\$103,201.18	\$51,913.44	-\$51,287.73
--- Inpatient Stays (Hospital/ED/LTC) ---			
Avg. Cost (per patient)	\$69,284.12	\$36,448.76	-\$32,835.36
Annualized Claim Cost (all patients)	\$5,210,235.27	\$2,434,816.58	-\$2,775,418.69
--- Outpatient Visits ---			
Avg. Cost (per patient)	\$1,068.99	\$538.56	-\$530.43
Annualized Claim Cost (all patients)	\$322,464.51	\$157,259.75	-\$165,204.76

Source: Retrospective cohort design (Primary Analysis).

*All differences statistically significant at $p < 0.05$, t-test with Bonferroni correction.

Table 2. Rates of Key Outcomes for New Opioid Patients, Before vs. After Provider Adoption of OpiSafe System

Outcome	Before Adoption	6+ Months After Adoption	Difference* (Rate Decrease)
Patients with New Opioid Prescription (N)	4,836	6,104	—
Progression to Chronic Opioid Use			
Cases (N)	41	11	—
Rate (%)	0.85%	0.18%	Absolute: -0.67% Relative: -78.8%
Opioid-Related Side Effects			
Cases (N)	72	10	—
Rate (%)	1.49%	0.16%	Absolute: -1.49% Relative: -89.0%
Progression to Opioid Use Disorder (OUD)			
Cases (N)	395	32	—
Rate (%)	8.17%	0.52%	Absolute: -7.64% Relative: -93.6%

Source: Pre/Post Adoption Design (Secondary Analysis).

*All differences statistically significant at $p < 0.05$, paired t-test.

