rxss®
Rx Savings Solutions

The Critical Link: Medication Affordability, Adherence, Outcomes and Medical Cost Avoidance

Patient cost-sharing is a key determining factor in medication adherence rates. As patients' share of prescription drug costs continues to rise, so does the likelihood of prescription abandonment at the pharmacy counter.[i]

The result? Poor therapeutic outcomes, disease progression, and an estimated billions in avoidable healthcare costs.[ii]

10% ↑ cost-sharing

2%-6% ↓ prescription use

One *JAMA*-published study showed that, for every 10% increase in cost-sharing, prescription drug use and spending decreases by 2%-6%, depending on drug class and condition of the patient.[iii]

$10 ↑ patient out-of-pocket cost

23% ↓ consumption

33% ↑ mortality

A National Bureau of Economic Research study suggests a modest $10 jump in out-of-pocket cost for chronic condition medication produces a 23% drop in consumption and 33% increase in mortality.[iv]

Across available literature, we see reported impacts of medication adherence (or lack thereof) on healthcare utilization and total cost of care. The correlation is pronounced among patients with congestive heart failure, lipid disorders, diabetes, hypertension and schizophrenia, where sticking to a consistent medication routine is so crucial to disease management.[v] [vi]

Adherence Defined

U.S. Food and Drug Administration (FDA):

"Medication adherence, or taking medications correctly, is generally defined as **the extent to which patients take medication as prescribed by their doctors.** This involves factors such as getting prescriptions filled, remembering to take medication on time, and understanding the directions."

American Medical Association (AMA):

"A patient is considered adherent if they take 80% of their prescribed medicine(s). If patients take less than 80% of their prescribed medication(s), they are considered nonadherent."

Diabetes and Adherence

+$15 in OOP = -11% adherence

Higher patient out-of-pocket costs for Type 2 diabetes medications have a negative impact on adherence. For every $15 increase in monthly out-of-pocket costs, diabetes medication adherence decreased by 11%.[x]

↑ total cost of care

↓ adherence

One particular study looking at patients within Medicare's low income subsidy (LIS) program found that, among patients with only one chronic condition, such as diabetes, those with the lowest adherence experienced annual Medicare costs that were $3,152 higher than their counterparts within the highest adherence category.[vii]

Another study showed that when Medicare Part D plan sponsors simply moved branded drugs from a higher to lower-cost tier (tier 2 to tier 1), adherence increased among beneficiaries.[viii]

1% ↑ Medicare Rx fills

.2% ↓ Medicare spending

The Congressional Budget Office (CBO) formally acknowledged this association between drug utilization and medical costs when they declared that for every 1% increase in the number of Medicare prescriptions filled, there is a 0.20% reduction in Medicare's spending on other types of medical care, such as hospitalizations and emergency department visits.[ix]

$100B-$300B

It has been suggested that by simply addressing medication nonadherence, an estimated $100-$300 billion in total healthcare cost reduction becomes possible.[xi]

A Solution for Affordability

Since 2012, Rx Savings Solutions (RxSS) has provided a clinical and cost transparency solution to public and private health plans, employers, and the members they cover. Patented software ingests pharmacy claims and maps individual prescriptions to any available, clinically appropriate lower-cost option covered within a plan's formulary, or to available cash and fulfillment alternatives. Members are proactively notified of every savings opportunity via their preferred communications channel.

$128 average savings per fill for RxSS members[xii]

$1,317 annualized savings per conversion[xiii]

RxSS data analysis mirrors the findings of numerous public health studies on the critical link between medication cost and adherence. Using RxSS to convert to lower-cost options, members have shown:

- Improvements in percentage of days covered (PDC)
- Reductions in adherence gaps
- Frequency of recurring refills

Improvement in PDC by drug category for members who used RxSS to switch to lower-cost alternatives:

3.09% Oral antidiabetics

0.38% Statins

1.43% Renin-angiotensin-system

Resumptions in Therapy

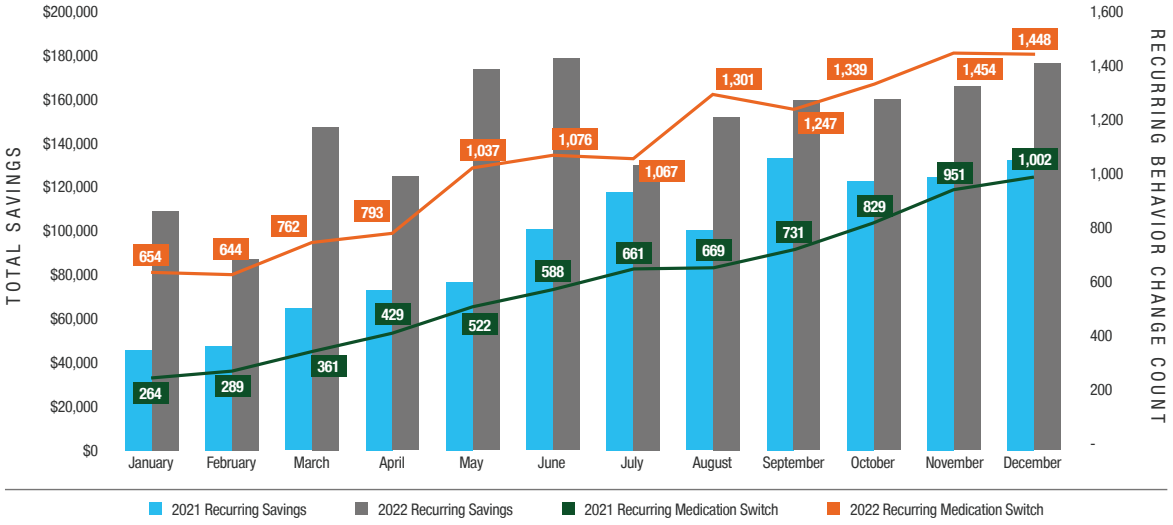
Examples of resumptions in therapy thanks to members switching to RxSS-suggested lower-cost clinical alternatives (oral antidiabetics, antidepressants), randomly selected from one employer-sponsored health plan.

NON-ADHERENCE			
Date	Day Supply	Member Cost	Plan Cost
Brand Antidiabetic 100 mg			
7/18	30	$115	$340
8/13	30	$115	$340
9/15	30	$115	$340
38-DAY GAP IN CARE			
Generic Antidiabetic 25 mg			
11/21	30	$45	$130
12/26	30	$45	$130

NON-ADHERENCE			
Date	Day Supply	Member Cost	Plan Cost
Generic Antidepressant A 50 mg			
4/1	30	$100	$0
28-DAY GAP IN CARE			
Generic Antidepressant B 40 mg			
5/29	30	$0	$2
6/25	30	$0	$2
7/21	30	$0	$2
8/25	30	$0	$2

Tracking Adherence with Recurring Fills

RxSS members have shown that once more affordable prescriptions are found and converted to, medication adherence improves and persists, as evidenced by a study of recurring fills within a 120,000-life health plan population.



94% Would Change to Alternatives

According to a well-known health data interoperability firm's annual survey, more than nine in 10 patients that skipped a medication due to cost would have been willing to take a lower-cost alternative if their prescriber had suggested one.[xiv] **RxSS notifies every member who has a lower-cost alternative available and works directly with their prescribers to get clinical alternatives approved and prescribed with an 86% success rate.**

Convenience = 2x Adherence

Patients using the mail-order channel for diabetes medications were more than twice as likely to be adherent when compared with patients filling their prescriptions at retail pharmacies.[xv] **In 2022 alone, RxSS converted 17.6% of engaged members from retail to mail-order or home delivery.**

What's the Impact for Your Population?

What would happen if your members had access to a third-party prescription drug cost transparency and decision-support tool that uncovers more affordable options? They would be more likely to remain adherent to their medications, which translates to future medical cost avoidance (i.e., decreased ER visits, hospitalizations, complex tests, procedures and treatments).

RxSS data, coupled with medication non-adherence data from the *British Medical Journal*, reveals potential total **cost of care avoidance for a typical 100,000-life plan in two common and costly categories:**

- **Cardiovascular – $414K to $2.4M**
- **Respiratory – $400K to $18M**

[i] NIH, National Library of Medicine, National Center for Biotechnology Information, Adherence and health care costs

[ii] NIH, National Library of Medicine, National Center for Biotechnology Information, How Patient Cost-Sharing Trends Affect Adherence and Outcomes

[iii] NIH, National Library of Medicine, National Center for Biotechnology Information, Prescription drug cost sharing: associations with medication and medical utilization and spending and health

[iv] National Bureau of Economic Research – The Health Costs of Cost-sharing, February 2021

[v] NIH, National Library of Medicine, National Center for Biotechnology Information, Prescription drug cost sharing: associations with medication and medical utilization and spending and health

[vi] NIH, National Library of Medicine, National Center for Biotechnology Information, Impact of medication adherence on hospitalization risk and healthcare cost

[vii] Value in Health – Association Between Medication Adherence and Healthcare Costs Among Patients Receiving the Low-Income Subsidy; Vol. 23, Issue 9, September 2020, pp. 1210-1217

[viii] Journal of Managed Care + Specialty Pharmacy; Vol. 20, Issue 1 – Moving Branded Statins to Lowest Copay Tier Improves Patient Adherence

[ix] Congressional Budget Office – Offsetting Effects of Prescription Drug Use on Medicare's Spending for Medical Services

[x] American Diabetes Association, Diabetes Care – Determinants of Adherence to Diabetes Medications: Findings from a Large Pharmacy Claims Database

[xi] U.S. Pharmacist – Medication Adherence: The Elephant in the Room; January 2018

[xii] Combined member-plan savings vs. member's original prescription, all conversions 2015-2022

[xiii] Combined member-plan savings for conversion facilitated by RxSS upon member request, all conversions 2015-2022

[xiv] Surescripts – Prescription Price Transparency and the Patient Experience, February 2020

[xv] American Diabetes Association, Diabetes Care – Determinants of Adherence to Diabetes Medications: Findings from a Large Pharmacy Claims Database