Impact of Digital Engagement on Medication Fill Rates in Cardiometabolic and Neurology Populations: A Real-World Analysis

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INTRODUCTION

- Medication non-adherence is a major barrier to achieving optimal clinical outcomes across chronic disease states.
- According to the CDC, 20-30% of prescriptions are never filled and nearly 50% of patients are non-adherent to long-term therapies. Non-adherence is associated with increased hospitalizations, disease progression, and higher healthcare utilization and costs.
- Digital health interventions have emerged as a strategy to address both logistical and behavioral barriers to medication use. These platforms aim to improve patient engagement and education, facilitate communication between patients and healthcare teams, provide real-time support during therapy initiation, and reduce barriers to medication access
- Redi Health is a digital patient engagement platform designed to improve medication access, initiation, and adherence by connecting patients, pharmacies, providers, and patient assistance programs.
- Redi Health utilizes medication reminders and adherence tracking, and coordination between healthcare stakeholders to streamline therapy initiation.

OBJECTIVES

- Evaluate the impact of Redi Health on medication fill rates in cardiometabolic and neurology populations
- Compare medication fill rates between patients invited to use Redi Health and those receiving standard care
- Assess the consistency of intervention effect over time using month-to-month comparisons
- Quantify the magnitude of effect using absolute differences and relative measures (RR, OR)

METHODS

- Retrospective observational analysis of real-world data collected pharmacy fill data from Redi-Health participating pharmacies.
- Evaluation conducted over a 6-month period using monthly aggregated data.
- Study designed to assess differences in medication fill rates between intervention and control groups.
- Data collected as monthly fill rates for each group
- Each month treated as a paired observation between intervention and control.
- Total of 6 paired observations per population.

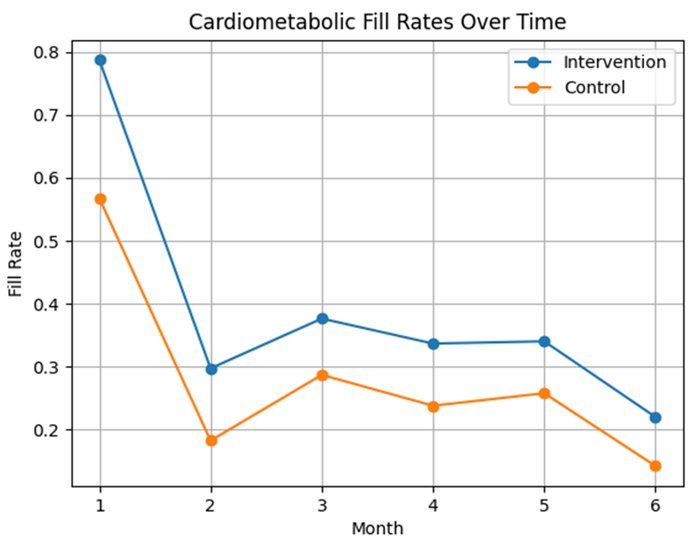
Cardiology Characteristics	Demographics Intervention	Control
Mean Age (years)	~58.9	~58.9
Female (%)	60%	60%
Male (%)	40%	40%
Commercial Insurance (%)	61%	60%
Government (%)	39%	40%
NBRx (%)	71%	70%
Established (%)	34%	33%

METHODS (continued)

Neurology Characteristics	Demographics Intervention	Control
Mean Age (years)	~48.4	~49
Female (%)	13%	14%
Male (%)	87%	86%
Commercial Insurance (%)	66%	66%
Government (%)	34%	34%
NBRx (%)	66%	67%
Established (%)	34%	33%

RESULTS (Cardiology)

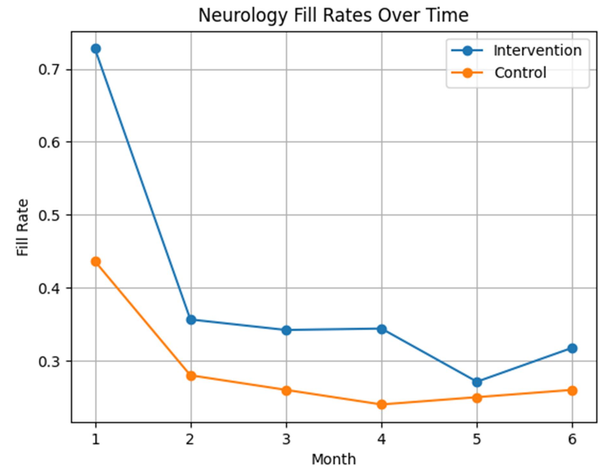
- Mean fill rate: Intervention 39.3% vs Control 27.9%
- Absolute improvement: +11.4%
- Monthly differences: +7.8% to +21.9%
- Paired t-test: p = 0.0034
- OR = 1.67
- Chi-square: p < 0.0001



RESULTS (Neurology)

- Mean fill rate: 39.3% vs 28.8%
- Absolute improvement: +10.6%
- Monthly differences: +2.1% to +29.1%
- Paired t-test: p = 0.0421
- Odds Ratio: 1.60
- Chi-square: p < 0.0001

RESULTS (Neurology)



LIMITATIONS

- Analysis based on aggregated monthly data rather than patient-level data
- Potential uncontrolled disease states
- Short duration of study
- Observational study
- Participation in Redi Health is voluntary but patients who never engaged in Redi were still included in the data analysis.

CONCLUSION

- Engagement with Redi Health was associated with higher medication fill rates in both cardiometabolic and neurology populations
- The intervention effect was observed in every month evaluated, demonstrating consistent improvement over time
- Paired analyses accounting for temporal variability demonstrated statistically significant differences between groups
- Patients engaged with Redi Health were approximately 35–40% more likely to fill medications, representing a clinically meaningful improvement in medication initiation
- Findings support the potential role of digital health platforms in reducing barriers to therapy initiation and improving medication adherence

REFERENCES

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Disclosures

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