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Impact of a High-Touch Medication Therapy Management Program on Total Cost of Care

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Objective

• To evaluate the economic impact of comprehensive medication reviews (CMRs) as part of a Medication Therapy Management (MTM) program during the 2019 calendar year.

Background

- According to the Journal of Community Hospital Internal Medicine Perspectives, preventable medication errors impact more than 7 million patients and cost almost \$21 billion annually across all care settings¹.
- To assist a 15,000-member life Medicare plan with improving the quality of care delivered to their beneficiaries, a pharmacist-led MTM program was developed and implemented.
- o Members were eligible for the MTM program if they met the following criteria:
- » Minimum of 3 chronic diseases from the following: Alzheimer's disease, arthritis or osteoporosis, chronic heart failure, diabetes, and chronic obstructive pulmonary disease
- » Minimum of 8 covered Part D Drugs
- » Incurred one-fourth of specified annual cost threshold (\$4,044) in previous three months
- Through the MTM program, pharmacists engaged with members telephonically to complete a CMR to identify and close various gaps in care.

Methods

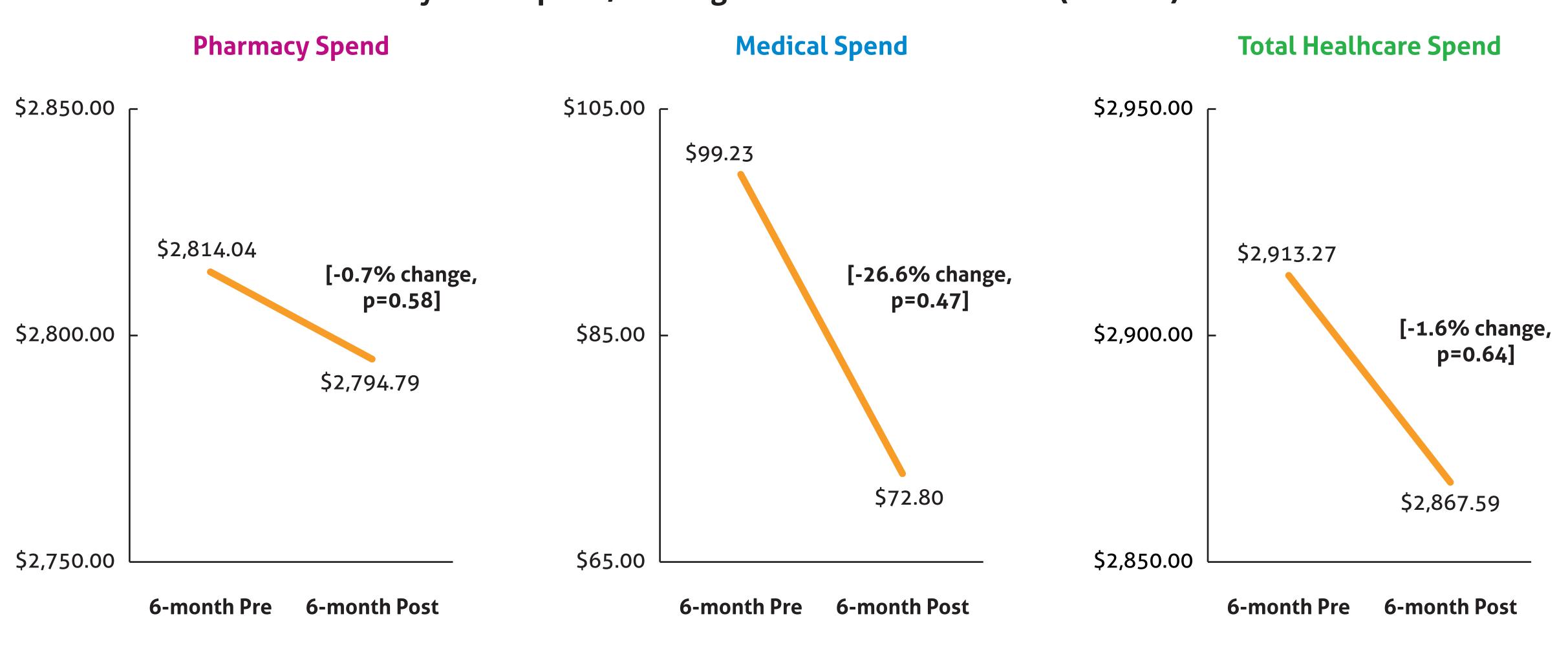
- A 6-month and 12-month cross-sectional analysis was completed to compare pre and post medical, pharmacy, and total healthcare utilization and spend of Medicare members enrolled in an MTM program using the CMR completion date as the index date.
- Claims data were extracted for the identified members.
- Exclusion Criteria:
- No medical claims
- o Claims with a date of service that spanned less than 300 days
- o Medical spend 3 standard deviations (STD) above the mean
- o Diagnosis codes that did not meet the MTM criteria
- o Less than 2 pharmacy claims and 2 medical claims
- 159 distinct members were included in the 6-month analysis.
- 157 distinct members were included in the 12-month analysis.

Demographic Characteristics of Study Sample

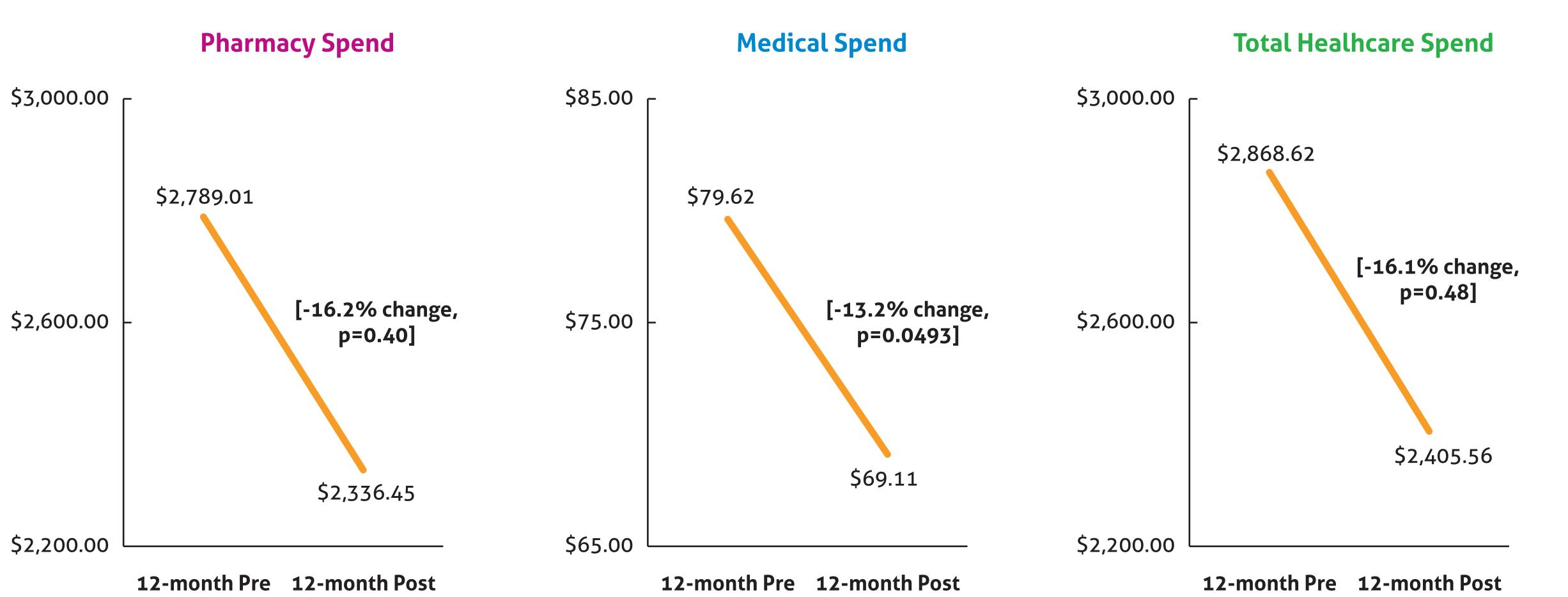
Demographic Characteristic	6-Month Sample (n=159)	12-Month Sample (n=157)
%Female (n)	61.2% (101)	61.2% (101)
Mean – Age (STD)	77.9 (6.9)	77.9 (6.9)
Mean – Elixhauser Comorbidity Index (STD)	2.7 (1.7)	3.3 (1.9)
Mean – Chronic Disease Score (STD)	6.6 (1.9)	7.4 (2.0)

Pharmacist-Led comprehensive medication reviews **reduce healthcare expenditures** by decreasing inpatient visits, ER utilization, and length of hospital stays.

6-Month Cross-Sectional Analysis on Spend, Per Eligible Member Per Month (PEMPM)



12-Month Cross-Sectional Analysis on Spend, PEMPM



Discussion

6-Month Analysis

- There was a 0.7% (\$19.25PEMPM) reduction in pharmacy spend and 1.6%(\$45.68 PEMPM) reduction in overall healthcare spend.
- Additionally, there was a 26.6% (\$26.43 PEMPM) reduction in medical spend driven by an 11.1% reduction in utilization of inpatient visits per thousand members per month (decreased from 18.9 to 16.8 when comparing the pre and post periods respectively) and a 34.5% reduction in utilization of ER visits per thousand members per month (30.4 to 19.9).
- The length of hospital stay decreased from 8 days during the pre intervention period to 5.5 days during the post intervention period.

12-Month Analysis

- There was a 16.2% (\$452.56 PEMPM) reduction in pharmacy spend driven by a 7.2% reduction in overall utilization, 5.5% decrease in the average number of unique medications per member, and a 1.4% increase in generic utilization.
- Additionally, there was a 13.2% (\$10.51 PEMPM) statistically significant reduction in medical spend driven by an 8.6% reduction in utilization of inpatient visits per thousand members per month (18.6 to 17.0) and a 7.4% reduction in utilization of ER visits per thousand members per month (36.1 to 33.4).
- The length of hospital stay decreased from 8 days during the pre intervention period to 5.5 days during the post intervention period.
- Lastly, there was a 16.1% (\$463.06 PEMPM) reduction in overall healthcare spend, driven primarily by a decrease in pharmacy expenditure.

Conclusion

• CMRs and active clinical engagement are both important tools that can reduce the total cost of care by impacting acute inpatient visits, ER visits, length of hospital stay, and pharmacy utilization.

Limitations

- Unable to capture cash paid claims
- Pharmacy spend depicted represents the gross spend and does not reflect rebates
- Did not apply any additional exclusion logic (e.g., exclusion of members receiving dialysis treatment, cancer patients, etc.)

Disclosures

This research was conducted by Magellan Rx Management, an affiliate of Magellan Health, without external funding.

References

1. da Silva, B. A., & Krishnamurthy, M. (2016). The alarming reality of medication error: a patient case and review of Pennsylvania and National data. Journal of community hospital internal medicine perspectives, 6(4), 31758. https://doi.org/10.3402/jchimp. v6.31758