Assessing the impact of a virtual maternity care program on total cost of care in a U.S. Medicaid-insured population

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Objectives

To evaluate the cost impact of Pomelo Care's 24/7 virtual maternal-newborn care program on population-level total cost of care in a Medicaid population.

Methods

This retrospective study included patients if they:

A were enrolled in a specific Medicaid plan contracted with Pomelo Care, B delivered a liveborn infant in Q1 2023 or Q1 2024, C had linkable mom-baby medical claims.

Mom-baby claims were bundled into episodes. Prenatal and postpartum claims with a pregnancy-or postpartum/ newborn-related ICD10 code respectively were included. All delivery and NICU claims were included. Select prespecified claim lines were excluded (e.g., ambulance costs). Episodes were globally excluded if prespecified clinician-identified confounding conditions were present (e.g., malignant cancer, paralysis). To assess the impact of the program, and to account for seasonality and data cutoff, Q1 2024 costs were compared to Q1 2023 costs, with 80 days of claims runout applied to both. Separately, the year-over-year growth rate in average episode cost ('trend') was computed from 2021 to 2022. The trend was then applied to Q1 2023 costs to extrapolate expected Q1 2024 episode costs without Pomelo Care. Return on investment (ROI) was computed relative to Pomelo's fees. IRB waiver of informed consent was obtained.

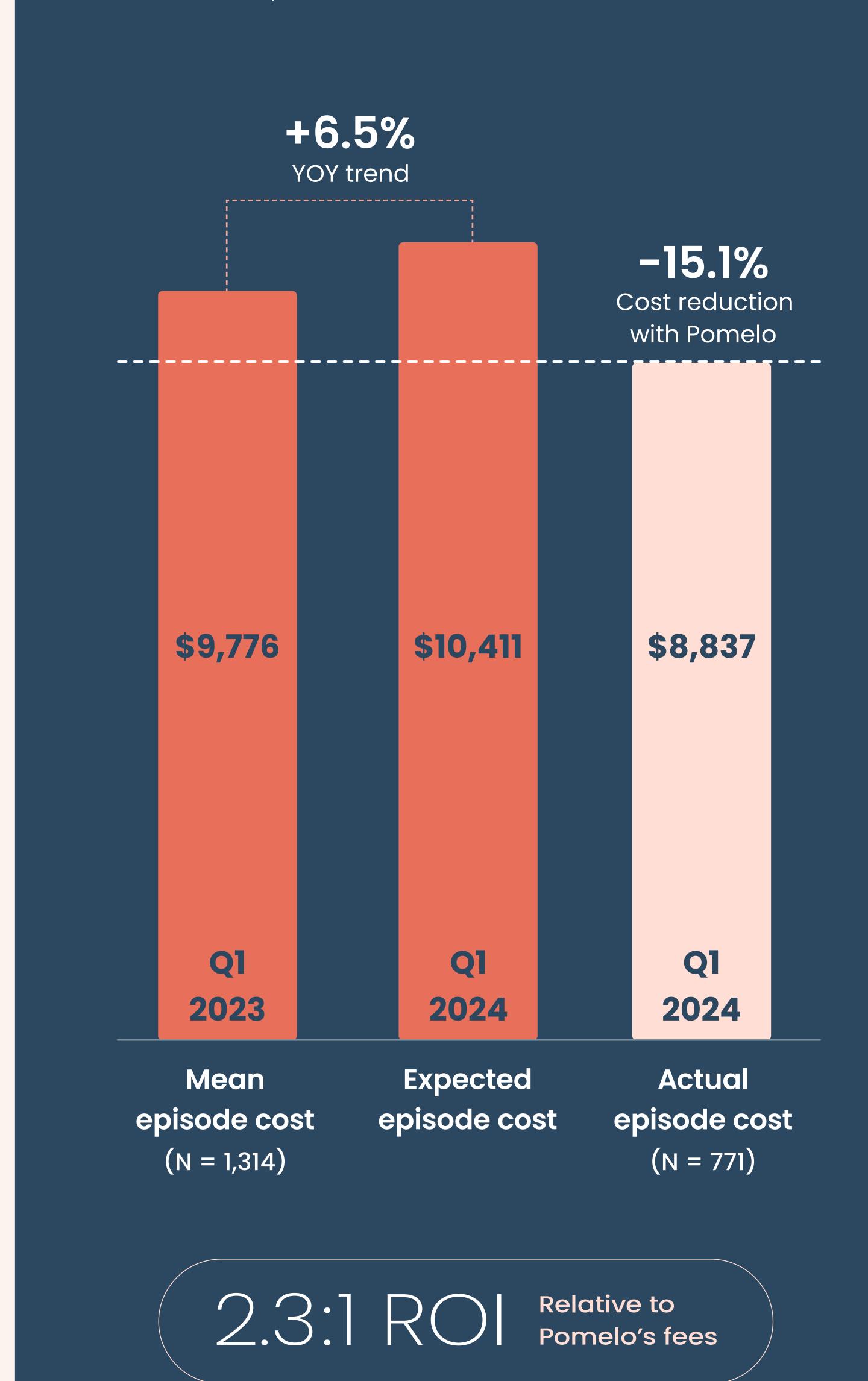
Conclusions

The results demonstrate that engagement in Pomelo Care's virtual maternity program is associated with a ROI-positive reduction in total cost of care in a Medicaid population.

Additionally, the findings suggest that telemedicine can be a cost-effective mechanism to augment perinatal care. Future studies could benefit from employing a matched cohort design or randomized trials to further validate these findings.

Results

Mean episode cost for Q1 2023 was \$9,776 (N=1,314). Year-over-year trend was 6.5%, yielding an expected Q1 2024 episode cost of \$10,411. Actual Q1 2024 episode cost was \$8,837 (N=771), representing a cost reduction of 15.1%, and a 2.3:1 ROI relative to Pomelo's fees.





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