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BUSINESS PROJECT

EXPANDING TELEMEDICINE TO OFFSET COST OF MISSED APPOINTMENTS

Sandra Paredes

INTRODUCTION

Motivation

‣ Midtown New York primary care practice has mostly older patients living with chronic diseases who have limited mobility on public transportation.

‣ Missed appointments cost the practice **$200 on average** per unused hour [1].

Business Opportunity

‣ Medicare expanded telehealth coverage [2] during COVID and accelerated its adoption [3].

‣ Telehealth would address patients' transportation issues.

‣ **How might we offset costs with telemedicine?**

Goal

‣ Assess patients' interest in telehealth to explore if investing in telehealth services would offset cost of missed appointments.

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METHODOLOGY

Data

▸ Medicare Current Beneficiary Survey, Winter 2021 [3]

▸ Subset: Northeast and West (n=4,305)

▸ Responses: Telehealth use, forgone care, technology at home

Solution Path

▸ Exploratory data analysis to determine factors that contribute to using telehealth among Medicare beneficiaries.

▸ Classification model to identify what is the likelihood patients are interested in telehealth.

▸ Clustering for customer segmentation.

Impact Hypothesis

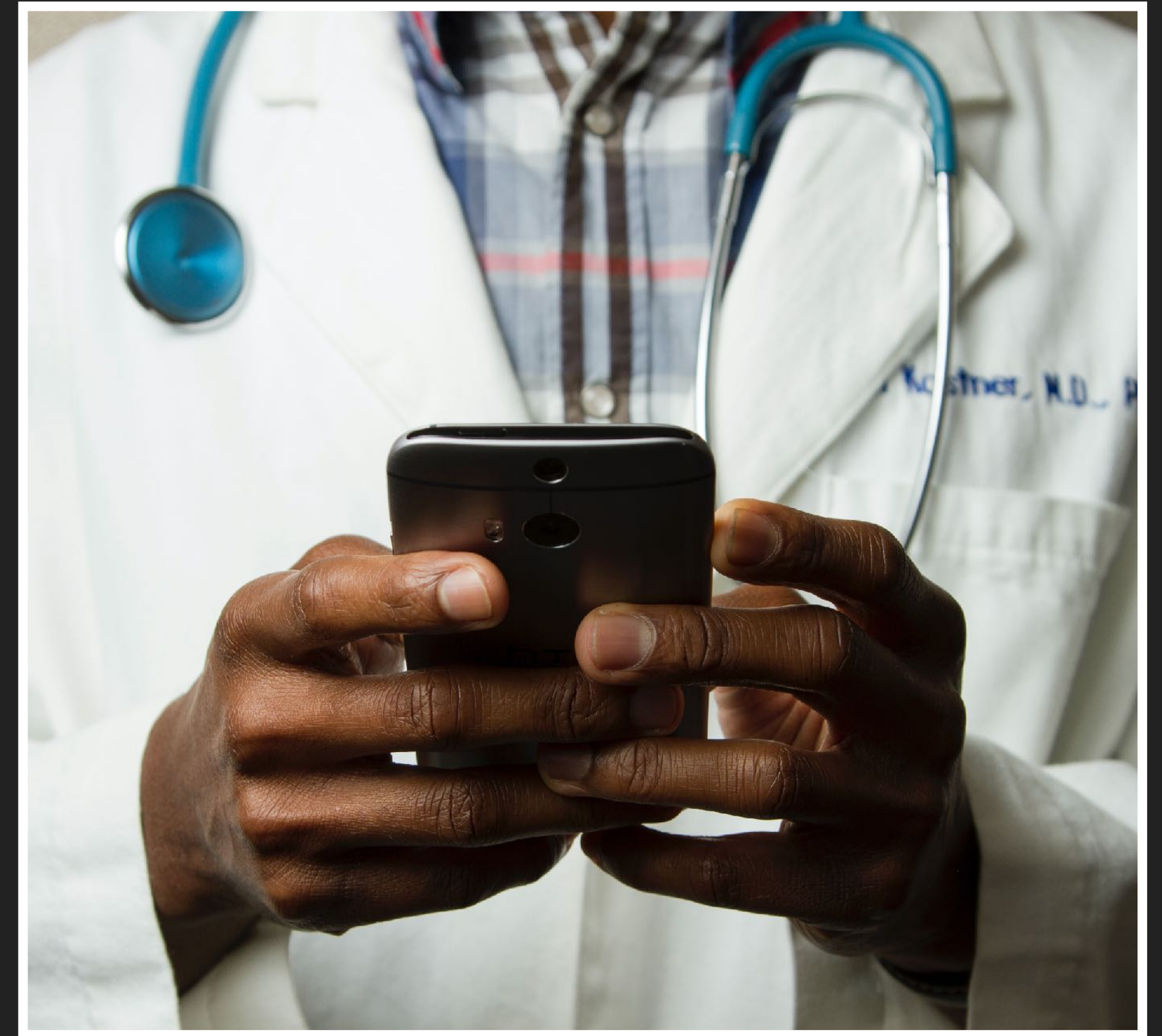▸ Offering telehealth services would **reduce costs** the medical practice incurs due to missed appointments.

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METHODOLOGY

Success Metrics

‣ 15 % cost reduction from missed appointments

‣ 10% increase in appointment retainment

‣ 15% increase in patient overall health due to continuity of care

Risks

‣ Telehealth services have **hidden costs** that do not offset the income lost to no-shows.

‣ The Medicare data does **not represent** the patient population of the client practice and is not generalizable.

Assumptions

‣ Patients with one or more **chronic conditions** are less likely to get around alone on public transportation.

‣ Physicians can **assess patients** via telemedicine as well as in-person visits.

Photo by National Cancer Institute on Unsplash

RESULTS

▶ Something high

▶

RESULTS

- Something low

CONCLUSIONS

Insights

▶ ...

▶ ...

Recommendations

▶ ...

▶ ...

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FUTURE WORK

▶ ...

▶ ...

▶ ...

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APPENDIX

▸ Summary, data, and slides are available at github.com/slp22/business-project

Photo by Joshua Hoehne on Unsplash

SOURCES

1. Missed appointment costs: https://www.hcinnovationgroup.com/clinical-it/article/13008175/missed-appointments-cost-the-us-healthcare-system-150b-each-year

2. Medicare telehealth expansion: https://www.medicare.gov/coverage/telehealth

3. Telehealth adoption: https://c8y.doxcdn.com/image/upload/v1/Press Blog/Research Reports/2020-state-telemedicine-report.pdf

4. Data set: https://mcbs.norc.org/us/en/mcbs.html

Photo by Georg Arthur Pflueger on Unsplash