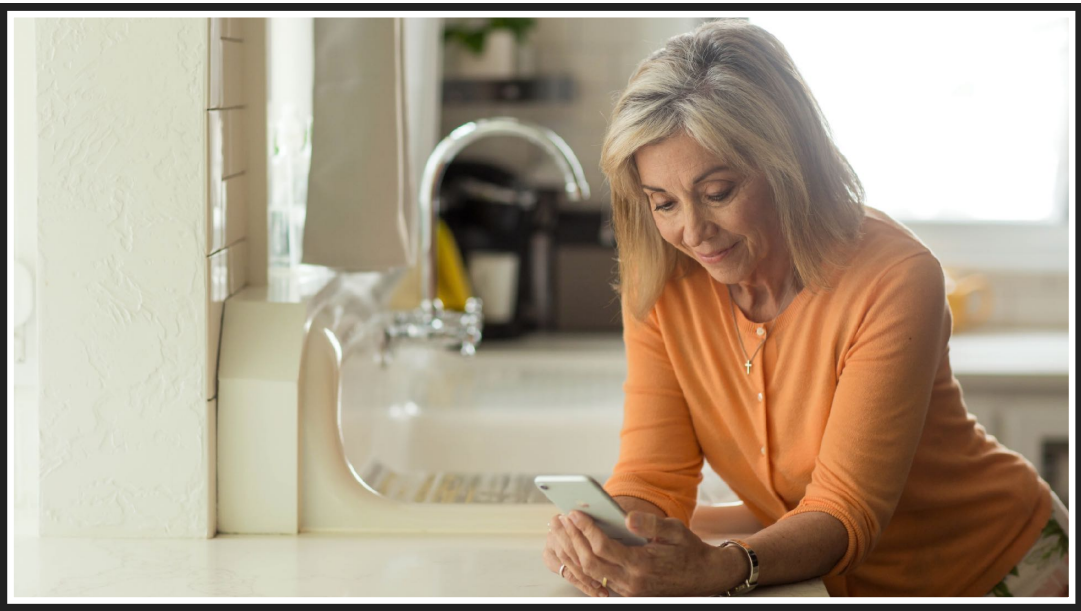

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BUSINESS PROJECT

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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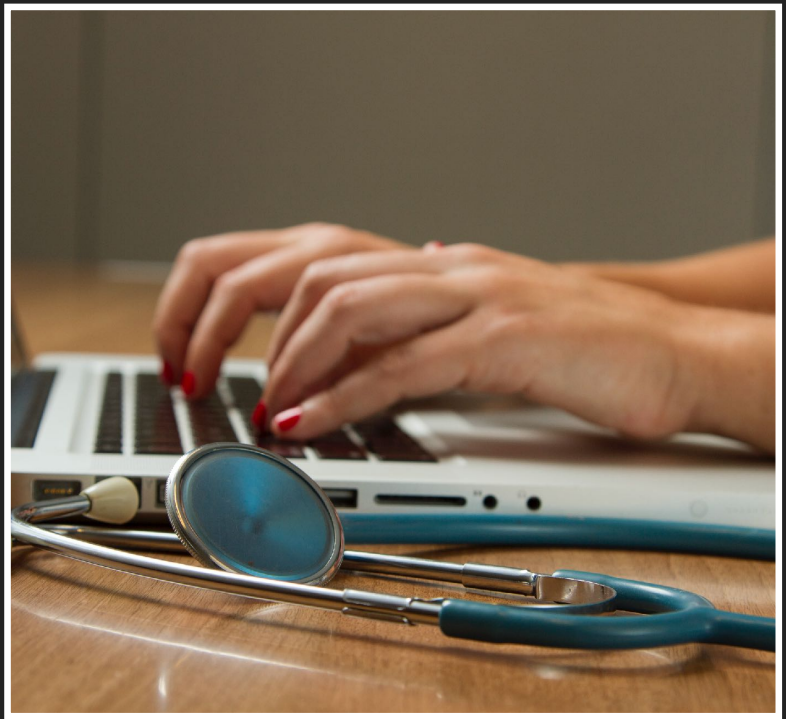
INTRODUCTION

Solution Path

- Exploratory data analysis to see how many Medicare patients over the age of 75 in urban areas used telehealth services during 2021 to inform a decision about investing in the technology.
- Classification model to identify what is the likelihood patients are interested in telehealth.
- Clustering for customer segmentation.



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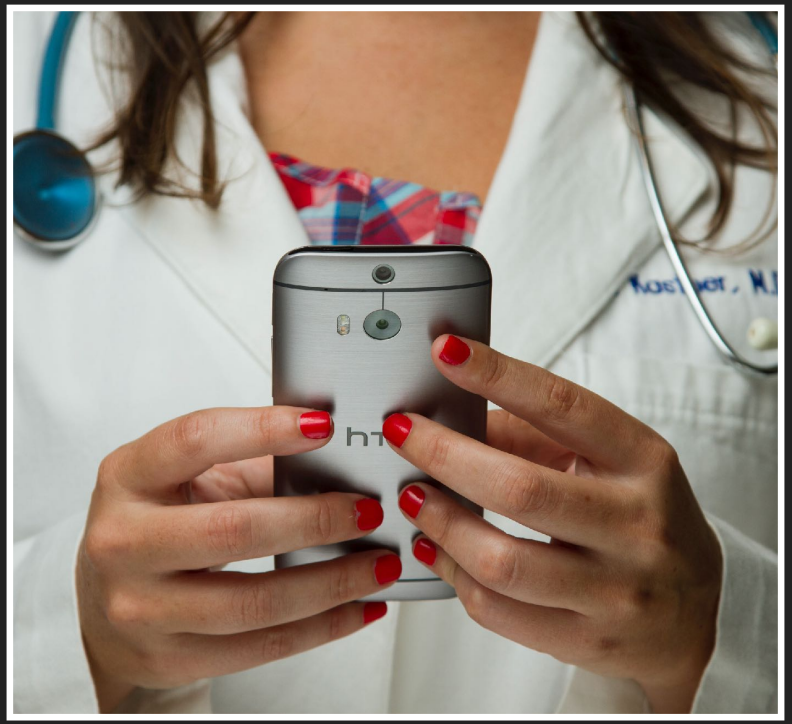
INTRODUCTION

Impact Hypothesis

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

Success Metrics

- 15 % cost reduction from missed appointments
- 10% increase in appointment retainment
- 15% increase in patient overall health due to continuity of care



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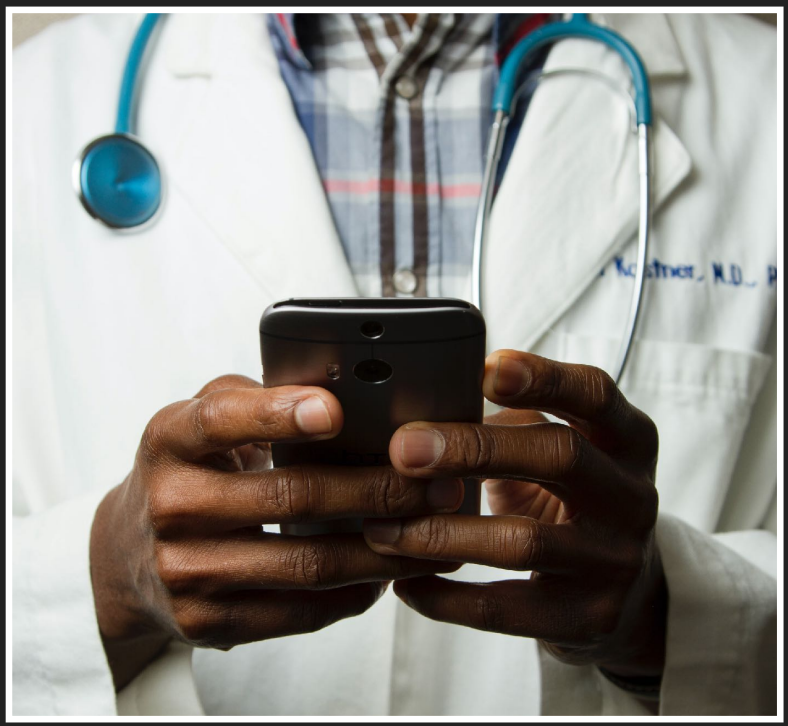
INTRODUCTION

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.



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METHODOLOGY

Data

- Medicare Current Beneficiary Survey, Winter 2021 [3]
- Subset: Northeast and West (n=4,305)

Responses

- Telehealth use
- Technology at home
- Forgone medical care and reasons why

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PRELIMINARY RESULTS

- Something high
- Tableau

Figure 1.

PRELIMINARY RESULTS

- Something low
-

Figure 2.

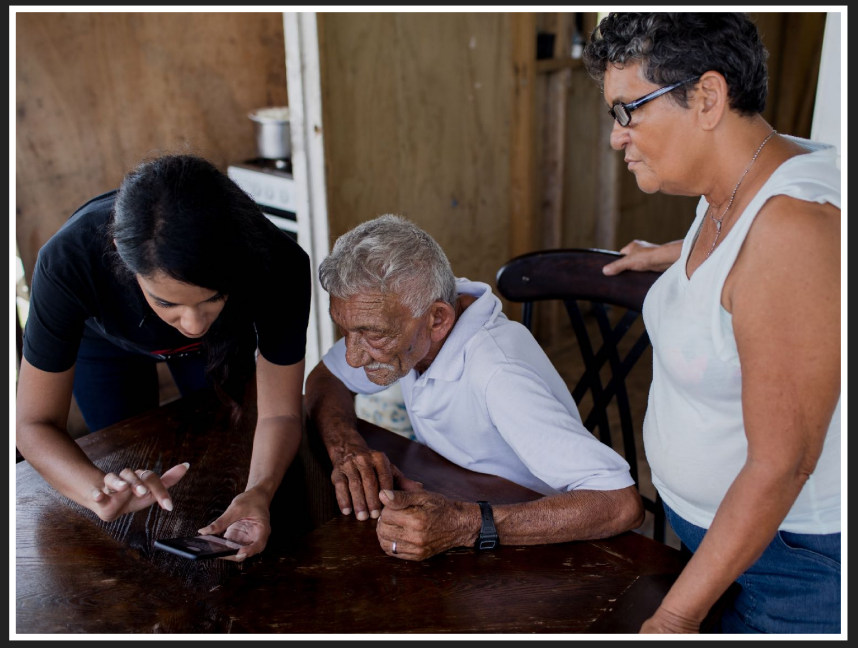
CONCLUSIONS

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
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