

Using Claims and Electronic Health Record Databases to Investigate Disparities in Women's Preventative Healthcare Utilization

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ABSTRACT

Disparities in women's healthcare access exist throughout the United States, but those relating to preventative healthcare services like routine gynecologic exams, cervical cancer screenings and mammograms are not well-documented. We are using health record and claims data to explore disparities in utilization of these services based on the social characteristics of the ZIP codes where patients live.

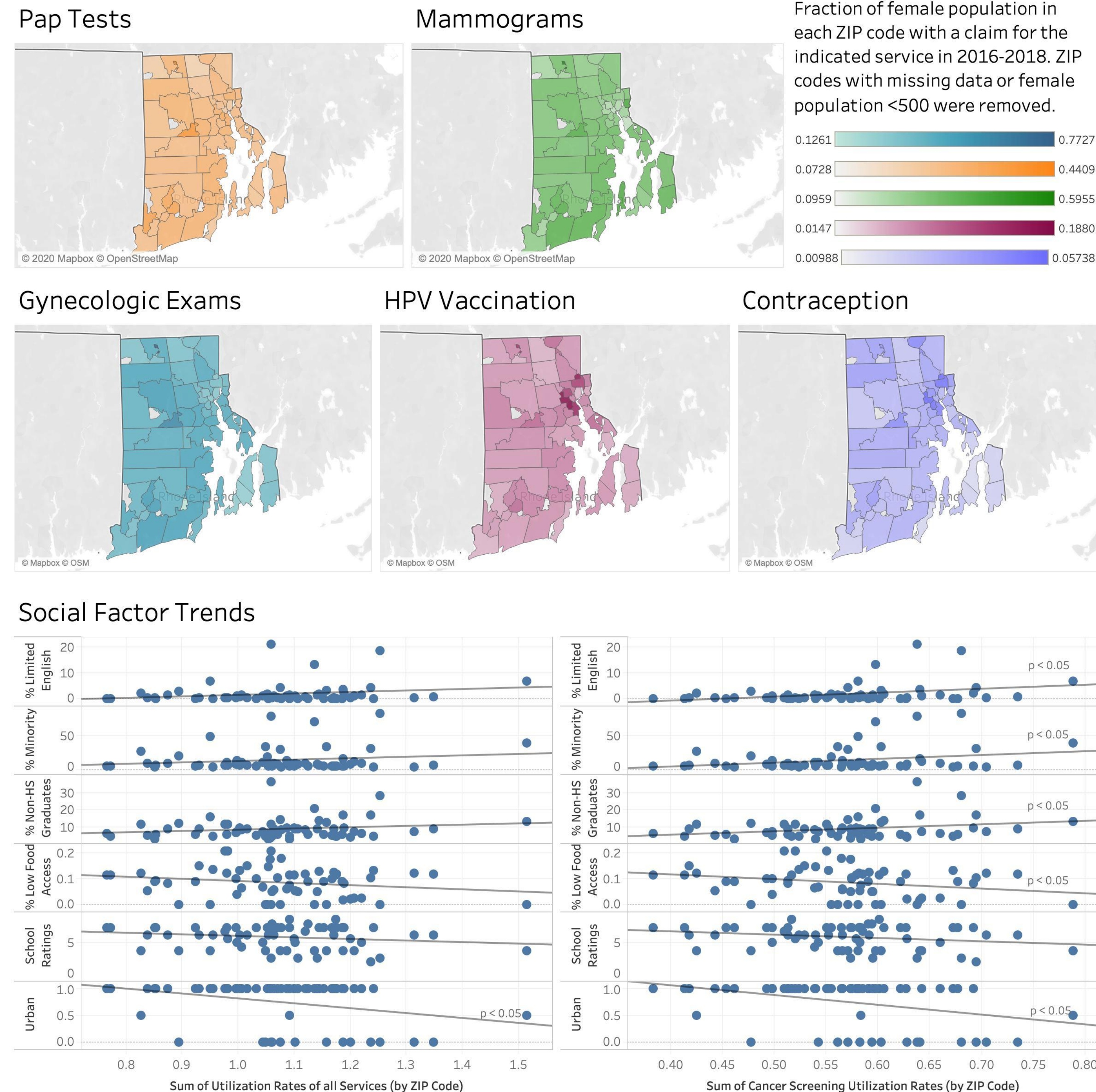
INTRODUCTION

- Disparities in health and healthcare exist everywhere, due to a variety of factors including racism and bias and negative social determinants of health.¹
- Little work has been done to evaluate disparities in women's preventative healthcare services and find the factors that contribute to them.
- RI maintains extensive healthcare databases, including the HealthFacts RI All-Payer Claims Database (APCD)³ and the Rhode Island Quality Institute (RIQI) CurrentCare Health Information Exchange (HIE)⁴, which contain the information necessary to analyze rates of preventative service utilization among women across the state.
- Combining these healthcare data with social factor data has the potential to uncover the strongest drivers of preventative care underutilization.

METHODS

- The APCD was accessed in the URSA Stronghold secure computer environment at Brown and was queried for the relevant ICD-10-CM and CPT codes using MySQL. An RIQI dataset constructed using similar inclusion criteria will soon be available.
- Julia programs separated entries by service type and generated counts of each service by ZIP code.
- Social factor data (50 variables in total) was obtained from CDC Social Vulnerability Index, Food Access Research Atlas, Towncharts, Greatschools, and HUD Low Transportation Cost Index.

RESULTS



DISCUSSION

- Based on the maps and models, the lower-income and more diverse urban areas of Providence had lower rates of utilization.
 - However, patterns of density appear to differ among the different services. Vaccination and contraception rates were high in the Providence area.
- Certain social factors had significant correlations with combined utilization rates of all services, but most did not.
 - Additional models that considered only cancer screening rates yielded a number of significant correlations with population demographics, education, and food access.
- Future directions:
 - Expand to include HIE data when available.
 - Include additional healthcare services and all social factors.
 - Explore insurance type as a potential driver of differences in utilization patterns.

CONCLUSIONS

The APCD and HIE include extensive data about the women who utilize healthcare in RI. There is potential to use these databases to better understand the drivers of preventative healthcare utilization among RI women.

References

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