Digital Health Strategies for Florida's Emerging Chronic Disease Burden

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INTRODUCTION

- Cardiovascular disease (CVD) and chronic obstructive pulmonary disease (COPD) remain among the leading causes of mortality worldwide
- In the United States, Florida faces a high burden due to its large older population (4.5M adults aged 65+).
- Provider access is uneven: over one-third of counties have ≤10 physicians per 10,000 residents.

Study Objective:

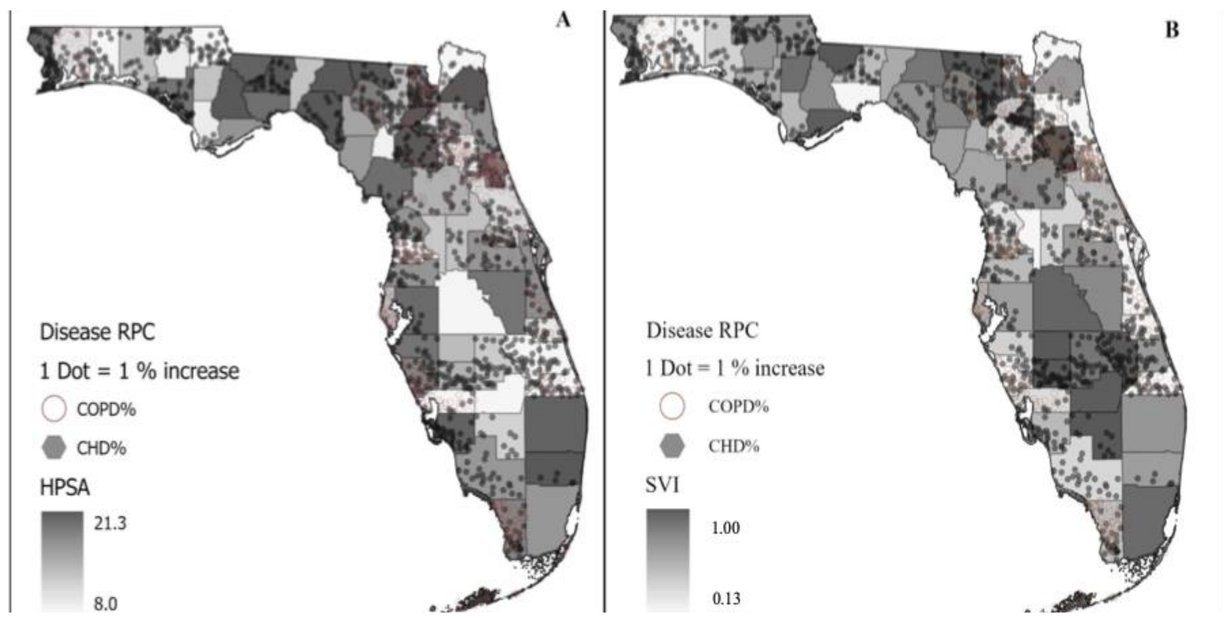
- To project county-level demand for cardiovascular disease (CVD) and chronic obstructive pulmonary disease (COPD) care among Florida adults aged ≥65 for 2025–2040, generating annual forecasts to identify high-burden counties and inform service capacity, workforce, and resource planning.

METHOD

- **Data:** Florida Agency for Health Care Administration county-level hospitalizations (2000–2024), Health Professional Shortage Area (HPSA) scores, the Social Vulnerability Index (SVI) and Bureau of Economic and Business Research (BEBR) projected population estimates (2001 to 2040).
- **Forecasts:** Holt–Winters projections of county CVD and COPD rates (2025–2040).
- **Dashboard Development:** Built an interactive Tableau dashboard to visualize forecasts by county, diagnosis, and demographic group, with features for filtering, comparison, and report export.

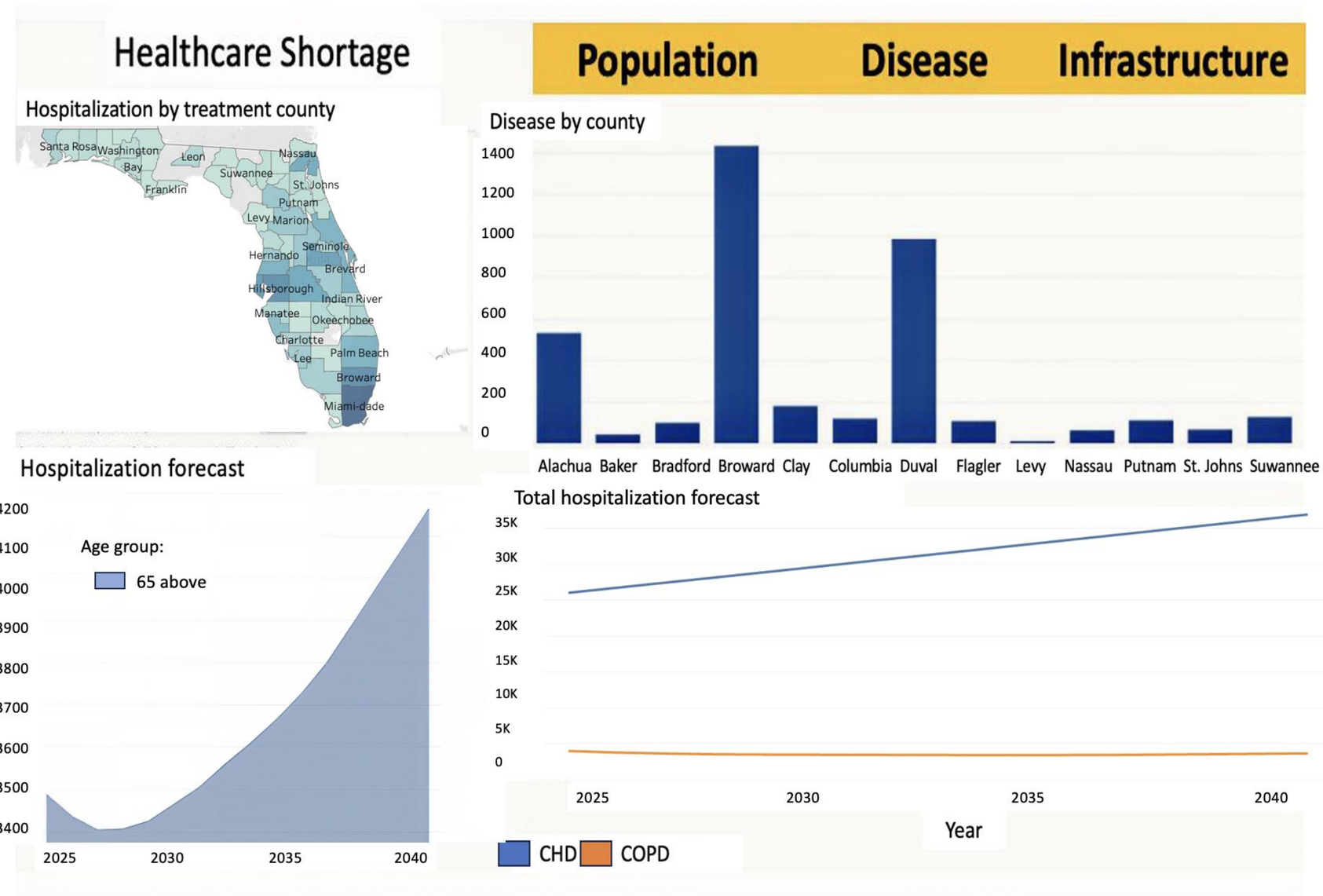
RESULTS

- **Condition-specific planning:** CVD rates are projected to increase by 8.13%, while COPD rates are projected to decrease by 13.47%.
- **Targeting opportunity:** 48 counties are projected to increase in CVD, and 22 counties to increase in COPD. North Florida emerges as a key hotspot for rising chronic disease demand.
- **Growing service demand:** The older adult population is projected to grow 31.26% from 5.3M (2025) to 6.6M (2040).
- **Equity hotspots:** Highest projected burden clusters in counties with high SVI, high HPSA, and larger racial/ethnic minority populations.



DISCUSSION

- Prioritize high SVI and HPSA counties for workforce development, including loan-repayment incentives and rural residency training programs.



Practice Implications

- Expand community-based care models, such as Federally Qualified Health Centers, mobile clinics, and community health worker (CHW) programs to strengthen prevention, screening, and chronic disease management.
- Implement culturally tailored interventions through partnerships with faith organizations, community leaders, and local groups to improve engagement and cardiovascular risk awareness.
- Integrate digital health strategies (e.g., telehealth and remote monitoring) alongside community support services, including digital literacy training and CHW-assisted technology use.
- Establish an equity monitoring framework tracking provider availability, telehealth utilization, preventive screening rates, and hospitalization outcomes by county, race/ethnicity, and SVI level.

CONCLUSION

Florida's aging population and county-level disparities are projected to increase demand for chronic disease care. A data driven approach that combines workforce expansion, community-based care, culturally tailored interventions, and equity focused monitoring can help policymakers identify high risk regions, allocate resources proactively, and reduce health disparities across Florida.

REFERENCES

Available upon Request