Analysis of Current Pharmacy Deserts in Illinois
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BACKGROUND

- Decreased reimbursement rates and a lack of Pharmacy Benefit Manager practice regulations only adds further financial burden to existing local pharmacies
- During the COVID-19 pandemic, health disparities have been spotlighted as certain populations living in medically underserved areas have not received necessary medical care

Definition for Pharmacy Desert

- Urban: Low-income community that either has low vehicle access and is more than half a mile from a pharmacy or is more than a mile from a pharmacy regardless of vehicle access
- Rural: Populations greater >500 that are at least 10 miles from a pharmacy or hospital

OBJECTIVES

- Identify current pharmacy deserts in the state of Illinois
- Assessing for the co-occurrence of health disparities such as chronic diseases and underuse of prescription medications in areas with low pharmacy access.

METHODS

Study Design
- Retrospective, longitudinal

Data Sources
- Health Resources & Service Administration (HRSA)
- U.S. Census Bureau
- Center for Disease Control & Prevention (CDC)
- Illinois Department of Public Health

Demographic data
- Geographic Information System (GIS) Mapping used to identify pharmacy deserts

Data Analysis
- Simple regression analysis to assess trend of closures for time frame
- Excel algorithms to compute statistics to determine percentages

RESULTS

- A total of 838 pharmacies have closed in Illinois from 2009-2021
- Average of 70 pharmacies closures per year
- 73% of counties in Illinois fit the definition of pharmacy desert

Areas classified as pharmacy deserts also have below state average (55.2%) COVID-19 vaccination rates (as of Nov. 2021)
- As low as 27.4% in some areas

CONCLUSION

- Pharmacy closures continue to increase, and pharmacy deserts are present in low socioeconomic status communities and in counties with high rates of residents living below the poverty level
- The lack of medication access for these areas may be associated to above average mortality rates to treatable chronic diseases (i.e., cardiovascular disease, diabetes, high cholesterol)
- Increased burden on hospitals due to lack of consistent medical care

FUTURE AREA FOR PHARMACISTS

- Pharmacy deserts hold unlimited potential for pharmacist involvement
- Utilization of full scope of practice
- Changes to the governmental definition of qualified healthcare provider to include pharmacists are needed to allow sustainable billing models for pharmacist-delivered care.
- Regulation of Pharmacy Benefit Manager practices are needed to ensure fair medication pricing to consumers and reimbursement to pharmacies