

## Care Deserts: Pharmacies

### The Problem

Pharmacies are the unsung hero of hands-on healthcare services. On average, Americans see their pharmacist more often than a primary care physician. However, pharmacies are disappearing from the US. In particular, ‘mom and pop’ pharmacies are dwindling in numbers, increasing pharmacy access disparity in both rural and urban areas.

Pharmacies are not evenly distributed across the United States, with regions of the country where the density of pharmacies is lower than recommended for optimal service to the community. In fact, there are 177 counties with no pharmacies at all. (1) A lower density of pharmacies also leads to greater distances to be covered to reach one, an additional barrier to those with low transportation resources. The cause of these deserts is multifactorial and at least in part commercial: unlike hospitals, whose location and creation is regulated by overall plans, pharmacies remain outlets for large corporations and thus follow market regulations for their location i.e. places where customer traffic is maximized. (2) Ease of access to pharmacies benefits individual Americans and the population as a whole.

### Significance to Public Health:

Barriers to pharmacy access are detrimental to the public health posture of a community in more ways than one. A dearth of pharmacies creates a challenge for prescription filling by patients, which with nearly 70% of Americans on at least one prescription drug, is most of us. (3) The treatment for many chronic diseases, such as diabetes, chronic-obstructive pulmonary disease (COPD) and heart failure, relies on a regimen of daily medications. Disruption of this daily regimen is likely to cause exacerbation of symptoms, increased avoidable hospitalization, or worse. Lack of medication compliance, worsened by lack of community pharmacies, is a key driver in hospital readmissions across all measures of the Medicare Hospital Readmissions Program (HRRP). (4)

Any barriers that contribute to gaps in daily supply will therefore:

- Increase morbidity
- Increase mortality
- Decrease quality of life
- Decrease life expectancy
- Increase hospitalization and the subsequent costs related to excessive healthcare utilization
- Increase readmissions within 30 days of discharge

Not only is this a burden on the individual American, untreated and under-treated chronic diseases are also some of the costliest diseases to the American taxpayer as a whole. According to the CDC, diabetes alone accounts for nearly \$327 billion annually in productivity loss and direct costs in 2021. (5) Similarly, COPD imposes direct costs of \$49.9 billion annually. (6)

Pharmacies also provide more than just prescription drug services. They are a key component of primary care in the United States, with studies showing that patients see community pharmacists 12 times more often than their primary care physicians. (7) Beyond those services, pharmacies are often a vital resource for:



- Patient education and information, especially regarding their medications.
- Prevention of adverse drug events after discharge, which is the most common of adverse events post-hospitalization. (4)
- Over-the-counter treatments.
- Family planning resources such as contraceptives and emergency birth control.
- Community vaccination efforts.

Of course, pharmacies have played a crucial role in the community during the COVID-19 pandemic. Pharmacies serve as principal testing centers as well as vaccine administration centers throughout the country (7) with 43% of community pharmacies serving as testing centers for COVID-19 (8) and 33.9% of all total vaccine doses administered in the U.S. coming through retail pharmacies. (9) This contribution to COVID-19 mitigation efforts shows the potential disastrous effect pharmacy deserts could have in our ongoing battle towards ending the pandemic and towards managing our overall public health posture.

### Next Steps:

Recognizing pharmacy deserts is the first step towards interventions by a number of health decision makers such as:

- Legislators interested in identifying barriers to care in their constituency.
- Legislators who want to craft tax and business policy that could incentivize more pharmacies in areas identified as deficient.
- Public health decision makers interested in identifying factors leading to chronic disease prevalence and related morbidity and mortality.
- Third party payers interested in identifying areas of high risk for chronic disease prevalence and related morbidity and mortality.
- Pharmaceutical corporations interested in business strategy and possibly underserved populations.
- Community organizations interested in knowing factors that could lead to health inequity.

This Pharmacy Desert analysis is the introductory offering in HSR.health's "Care Desert" initiative and is an important step in increasing awareness of this often-overlooked issue. We aim to analyze and publicize how geography can contribute to public health concerns and how to best address these concerns. Our Pharmacy Desert analysis identifies multiple locations in the United States where pharmacy resources are severely deficient and may constitute a significant barrier to care for millions of Americans. This analysis, part of our wider Care Desert series, is a first and important step in increasing the awareness of our policy makers to this often, under publicized problem. HSR.health hopes to lead the way in revealing how our geography can contribute to both health problems and likewise, health solutions.

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