Location Matters

Differences in Primary Care Supply by Neighborhood in Philadelphia

Executive Summary

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Introduction

Implementation of the Affordable Care Act (ACA) has increased the number of Americans with health insurance, raising concerns about the capacity of the primary care workforce. Despite the importance of ensuring access to health care, most local health departments do not have the data or infrastructure to monitor the availability of primary care.

This report, commissioned by the Philadelphia Department of Public Health (PDPH) and funded by the Independence Foundation, addresses three objectives:

1. **Describe a method to measure and monitor geographic access to primary care in Philadelphia.**
2. **Describe current geographic access to primary care by neighborhood in Philadelphia and identify areas at greatest risk of insufficient access.**
3. **Validate simplified methods to measure geographic access to primary care.**

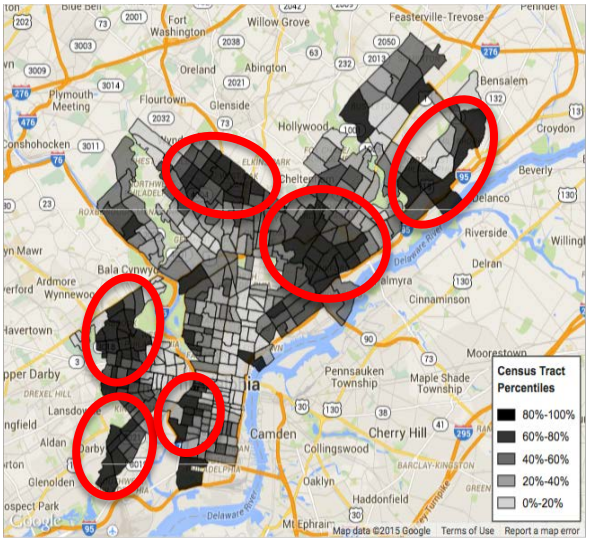
Objective 1 – Methods for monitoring access

The sources of primary care provider information that have traditionally been used for workforce studies have a variety of limitations, especially lack of accurate practice address. To measure the supply of primary care providers in Philadelphia we started with a dataset from SK&A™, a private vendor, which we compared to private insurer and Medicaid provider directories, and lists of community health centers (CHCs), to determine if providers were missing from the SK&A™ list. We then called all practices to verify how many primary care providers practiced at that location through a brief survey. Ultimately, 71% (n=460) of the practices identified via SK&A™ were primary care practices.

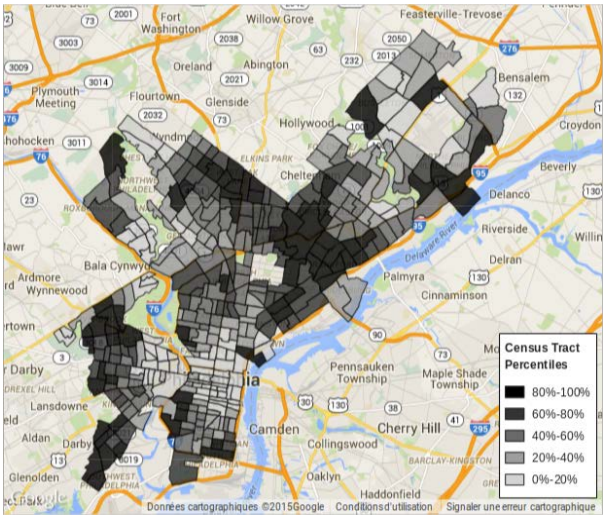
Objective 2 – Neighborhood access

Using data from the phone survey, we estimated the number of full-time equivalent providers (FTEs) offering primary care in Philadelphia as well as the proportion of

provider time available to provide primary care to patients with Medicaid. We supplemented that with information about practices that are outside the city limits but potentially accessible to city residents. We mapped the adult primary care supply by creating population-to-provider ratios for the general population (Map 1) and for those patients with Medicaid (Map 2). We identified six clusters of census tracts that fall into the lowest quintile of access for the general population.



Map 1. Population-to-provider ratio, within 5-minute drive time of census tract centroid, by quintile.



Map 2. Publicly-insured population ages 18-64 to Medicaid provider ratio, within 5-minute drive time of census tract centroids, by quintile.

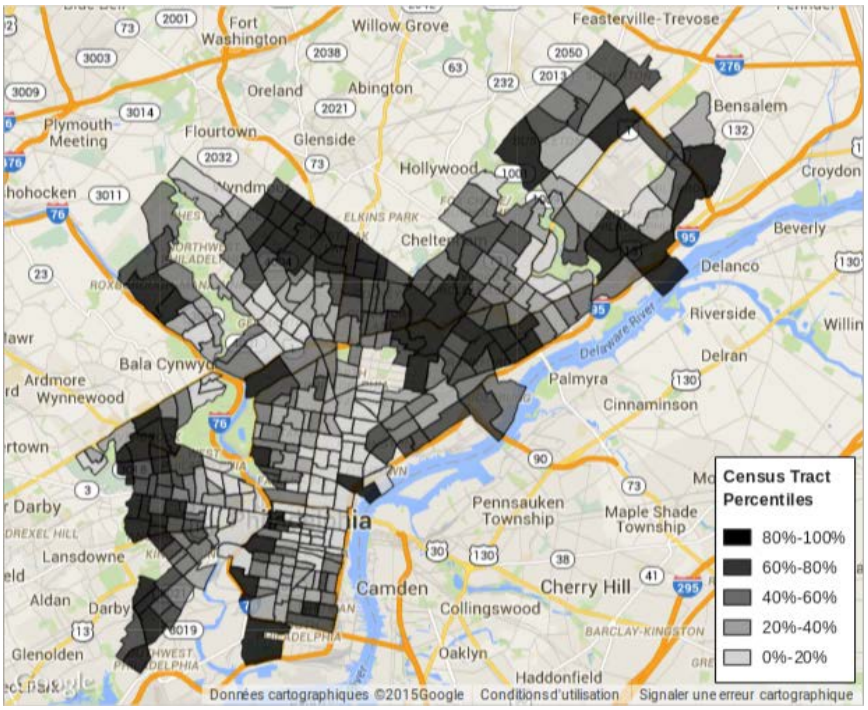
Similar to the overall population, Medicaid populations have particularly low access in the Lower Northeast and Southwest. Many CHCs fall in parts of the city with a high density of Medicaid coverage. The existing CHCs are likely preventing the populations with Medicaid in these areas from being even more inadequately served.

Objective 3 – Validation

Because the PDPH is interested in monitoring primary care access over time, we compared maps created with our full provider dataset to maps created with the information from SK&A™ alone, as well as the SK&A™ dataset supplemented with CHC

data. In the future, at a small cost, PDPH will likely be able to easily access both SK&A™ and CHC data.

Map 3 shows similar results to what we found with the full database (Map 1) suggesting that for future iterations, using SK&A™ data supplemented with CHC locations may be a logical way to decrease the resources required without sacrificing significant accuracy.



Map 3: Population-to-provider ratio, SK&A™ data plus public CHCs, 5-minute drive time.

Conclusions

We found that the overall population-to-primary care provider ratio in the city is 863:1. Compared to established benchmarks[1], this suggests that the city has sufficient primary care supply overall. However, when comparing relative access across different neighborhoods (Map 1), a different picture emerges. In the lowest access areas of the city there are approximately 10 times more adults per provider than in the best-served neighborhoods. These lowest access census tracts tend to cluster together. We identified six clusters of lowest access: Southwest, West, Northwest, Lower Northeast, Greater Northeast, and South Philadelphia/Gray's Ferry.

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[1] Health Resources and Services Administration. 2015. *Primary Medical Care HPSA Designation Overview*. Available at: http://bhpr.hrsa.gov/shortage/hpsas/designationcriteria/primarycarehpsaoverview.html. Accessed Feb 17, 2015.

Based on these findings, we recommend:

1) **Health care delivery systems, insurers, public health entities, and organizations that operate community health centers should prioritize these six low-access clusters as they assess their current and future primary care services.**
2) **The Philadelphia Department of Public Health, with support from public health and health care delivery stakeholders, should use the methods in this report as a guide for reassessing primary care access on a biennial basis to inform neighborhood and city-wide planning efforts.**
3) **Further research is needed to evaluate other aspects of primary care access, such as wait times, transportation, acceptance of Medicaid and the uninsured, and patient preferences. Particular attention should be focused on the six low-access clusters to verify the areas of highest priority for investments in primary care.**

Even in the lower access areas clusters, however, the ratios are better than some of the established national benchmarks for critical shortages[2]. The large disparities between neighborhoods coupled with a relatively high number of primary care providers for the city overall suggests that the distribution of providers may be more of a problem than the absolute number. While we have identified areas at risk for insufficient primary care, a broader characterization of primary care supply in these parts of the city is essential for determining where interventions to expand primary care are most needed and could be most effective.

One of the goals of this project was to develop a method by which the Philadelphia Department of Public Health could monitor primary care access in the future. This is particularly important for evaluating interventions to expand primary care

[2] HRSA. nd. Primary Medical Care HPSA Designation Overview. http://bhpr.hrsa.gov/shortage/hpsas/designationcriteria/primarycarehpsaoverview.html. Accessed Feb 18, 2015.

access, as well as monitoring changes in primary care with full implementation of the Affordable Care Act. Replication of this work would require: 1) an updated database of current primary care providers (SK&A™ and CHC lists), 2) updated population information, and 3) sufficient expertise in data management and statistics to re-run the analysis using the already developed statistical code.