Who is the Face of the Uninsured in Arizona? Demographic Analysis of the Uninsured for Informed Policy Decisions

Ruby Kerwin MAS-GIS[1], Austin Pena[2], Maurice Lee MD, MPH, FAAFP[3], Matthew Buras[2]
[1]Arizona State University, [2]Mayo Clinic Arizona, [3]Virginia G. Piper St. Vincent de Paul Medical Clinic

Background

There is a national push to address the social determinants of health. Local, state and federal organizations implement policies based off of assumptions for this population yet there is limited research about the makeup of free clinics and the patients they serve.

Objectives

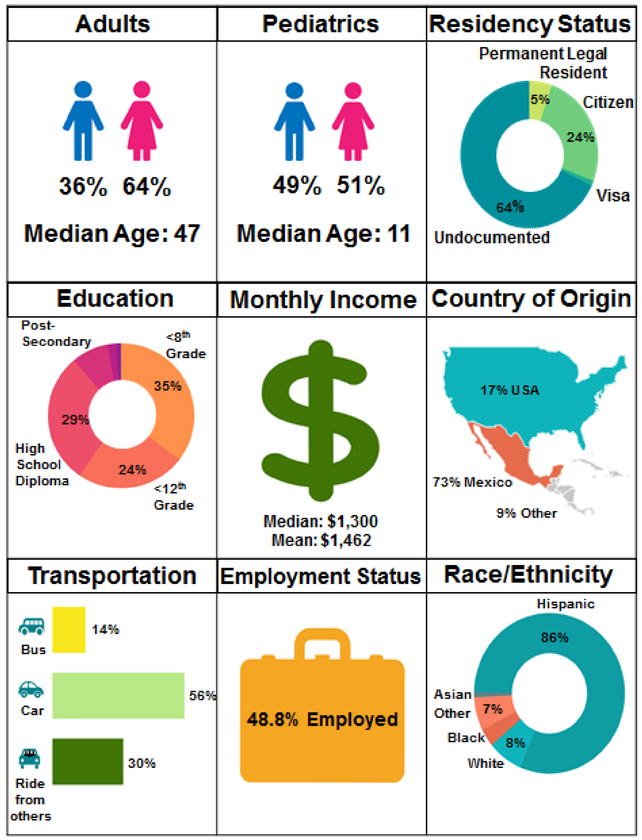
The objective of this study is to create a comprehensive understanding of who the uninsured population in Phoenix is in order to guide future healthcare policy. The Virginia G. Piper St. Vincent de Paul Medical & Dental Clinic (SVdP) in Phoenix, AZ was chosen as the site as it is the hub of the Arizona Safety Net, serves patients from all over Maricopa County (131 zip codes), and receives referrals from the valley hospitals, free and low cost clinics (FQHCs), and other social service agencies.

Methods

A retrospective electronic chart review was performed of all patients seen by a provider at the SVdP Clinic from January-September 2018. Patient demographics were collected. A GIS analysis was performed to calculate driving time for no show patients' addresses. GIS analyses were performed to map patient distribution, health insurance coverage rates, and locations of FQHCs. Also included in the analysis was driving time correlation for no shows.

Individual visits were categorized and quantified in order to identify trends based on specialty/type and no shows.

Results



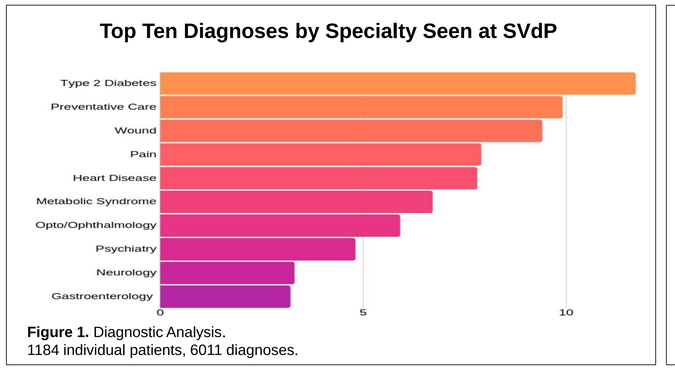


Figure 1. Diagnostic Analysis.
1184 individual patients, 6011 diagnoses.

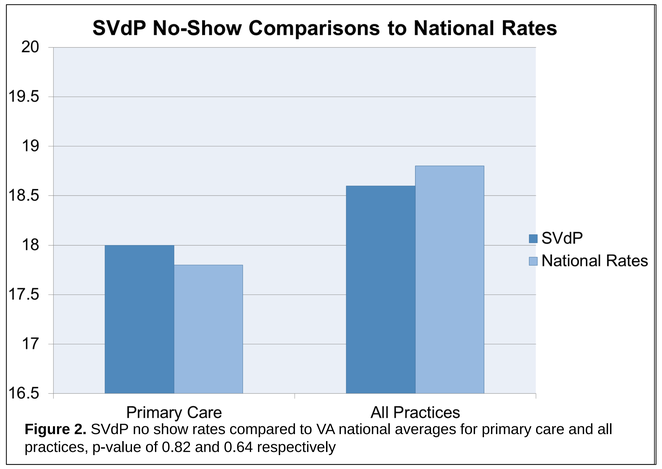


Figure 2. SVdP no show rates compared to VA national averages for primary care and all practices, p-value of 0.82 and 0.64 respectively

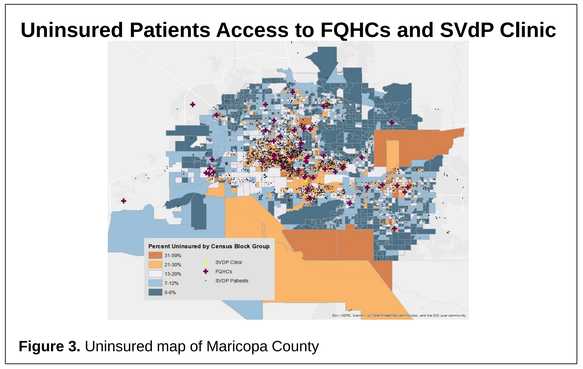
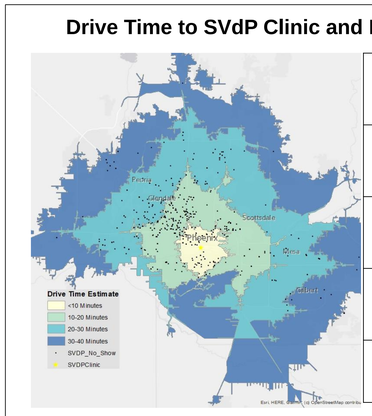


Figure 3. Uninsured map of Maricopa County



Drive Time	No Show Estimate*
<10 minutes	24.7%
10-20 minutes	26.29%
20-30 minutes	28.92%
30-40 minutes	27.19%

Figure 4. SVdP no-shows based on drive time estimates. P-value of 0.78 when comparing drive times with no show rates.

Conclusion

The uninsured in Phoenix is largely a young Spanish speaking Hispanic population that is mostly undocumented without high levels of education. They are being seen for chronic diseases and health care maintenance.

Patients seek care from all over Arizona and distribution patterns follow uninsured prevalence data from the county. Diabetes is the most common condition treated in the clinic and when diabetes visits based on complication are grouped together it accounts for approximately 1 out of every 5 encounters. The second most common reason for visits was for healthcare maintenance/prevention.

This was no difference in the no show rates when compared to the national average for both primary care and all practices combined. Those individuals most likely to no show were white males in their 40s, yet they do not make up a significant portion of the population served. The specialties with the highest no show rates are psychiatry and pediatrics. Driving time did not correlate with higher no show rates.

Discussion

Findings from this study paint an objective picture of who the uninsured in Phoenix are. These findings are relevant to Phoenix, and likely, most urban and inner-city communities in Arizona as well as other states that have similar immigrant populations.

The density of the uninsured seen at SVdP would be expected to decrease around existing FQHCs but it does not. This suggests there are barriers to getting care at the clinics designed to care for this population. Many of the patients have records with a number of FQHCs yet still end up in emergency rooms for non-emergent conditions. Barriers to the lack of appropriate accessible care at the FQHCs are not well known but has been a recurring theme over a number of studies.

Based on these findings, interventions should focus on:

- Eligibility services targeting the 30% who are eligible for AHCCCS
- Immigration services to assist the other 70% start the process towards being eligible for AHCCCS
- Increasing access to quality diabetic preventative care and services
- Increasing access and transparency to health maintenance and specialists.
- Further research is needed to understand the gap between the FQHCs and the uninsured population.

Information utilized in designing programs that address health equality should come from those working directly with the population via a team-based approached. All clinics that make up the Safety Net in any given area should share data and work with hospital and ED professionals including social workers and social service agencies to identify the greatest needs and design interventions that will create meaningful change.