Defunding Women's Health Clinics Exacerbates Hispanic Disparity in Preventive Care

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Abstract

To prevent abortions, many states have cut funding for women's health, reducing access, including to preventive care. Merging BRFSS data with clinic locations from a network of women's health clinics, this paper estimates the relative impact of an increase in the driving distance to the nearest clinic on preventive care. For Hispanics women, a 100-mile increase decreases the rates of clinical breast exams by 23%, Pap tests by 16% and checkups by 14%. For non-Hispanics, there are no statistically significant results.

JEL Codes: H75, I18, J13

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Introduction

Numerous politicians believe that the ideal level of public funding for women's health organizations that are associated with abortion services is zero.[1] However, as one of the largest health care providers for poor women, these organizations provide a broad variety of services. For federally funded Title X clinics, 38% of family planning users also received clinical breast exams and 31% also received a Pap test (Fowler et al 2012). Clinic closures resulting from funding cuts could therefore have wide ranging consequences. This in direct contrast to the perspectives of legislators who believe such funding cuts can happen in isolation. Texas Representative Wayne Christian made this point explicitly, saying, "I don't think anybody is against providing health care for women. What we're opposed to are abortions."[2]

Previous research has found that clinic closures and the resulting increase in driving distance to the nearest clinic reduced preventive care, more so for less educated women (Lu and Slusky 2016). I continue that research by investigating ethnic health disparities for clinical breast exams, mammograms, Pap tests, and checkups, contributing to a large literature on the racial disparities in preventive care (Sambarmoorthi and McAlpine 2003; Kirby, Taliaferro, and Zuvekas 2006; Fiscella and Holt 2007; Vargas et al. 2010) and cancer rates (Beavis et al. 2017). I also follow several studies in the economics literature that study at the impact of relative changes in various distances on relative changes in health outcomes (Buchmueller, Jacobson, and Wold 2006; Currie et al 2010; Anderson and Matsa 2011; Currie and Walker 2011; Rossin-Slater 2013).

[1] *New York Times* 8/17/2015.

[2] *New York Times* 3/7/2012.

Given the existing substandard care that Hispanic women receive, quantifying the magnitude of the effect of these particular funding cuts on Hispanics would be helpful for future policy makers looking to mitigate adverse health disparities.

Data and methodology

The outcome measures of interest are from the Behavioral Risk Factor Surveillance System (BRFSS) which asks about the timeframe of a respondent's female preventive care procedures. These data are confidentially merged by ZIP-code and interview quarter with snapshots covering 10/1/2007-12/31/2012 from a national network of women's health centers. Given clinic locations, using Google Maps, I calculated the weighted average past-year driving distance from the nearest clinic to each ZIP-code centroids. I included clinic locations from surrounding states to account for nearby closures. Additionally, this analysis used county-level unemployment rate, averaged over the past year, to control for local economic downturns, which can result in a reduced ability of patients to pay out of pocket and also fewer hours of operations.

The sample was limited to survey respondents that were either non-Hispanic white ("white") or Hispanic, 18-44, female, not pregnant, with non-missing values for ZIP-code, education, income, employment, marital status, health insurance, and the outcome variables. There were unfortunately not enough black respondents to have statistical power to study them separately, and so they are excluded from this study.

In 2012, BRFSS added cell-phone-only respondents to their sample. As these respondents are systematically different from household with landlines and were added in the middle of the policy implementation, including them may bias the results (Pierannuzi et al. 2012). The sample is therefore limited to landline respondents, and uses corresponding landline-only subsample weights. Additionally, since the primary independent variable incorporates clinic driving distance data from the previous year, and that data only goes back to 10/1/2007, survey data without a full prior year of clinic data (i.e., 1/1/2008-8/15/2008) is excluded.

My econometric strategy is ZIP-code and state-by-year fixed effects with individual and county controls:

$$y_{izt} = \beta_0 + \beta_1 dist_{zt} + \boldsymbol{\beta}_2 \mathbf{X}_{izt} + \boldsymbol{\beta}_3 \mathbf{Z}_{zt} + \boldsymbol{\beta}_4 \mathbf{C}_z + \boldsymbol{\beta}_5 \mathbf{T}_t + \varepsilon_{izt}$$

Individual i lives in ZIP-code z and is surveyed in year t about outcome y. *dist* is the average distance to the nearest facility in the provider database as described above. **X** are individual-level controls. **Z** contains the past-year average county-level unemployment rate and state-by-year fixed effects. **C** and **T** are ZIP-code and year fixed effects, respectively. Standard errors are clustered at the county level to account for spatial correlation among adjacent ZIP-codes that are jointly affected by clinic closures.

Results

Table 1 shows the summary statistics.

Table 1: Summary Statistics

		Whites (N=2381)	Hispanics (N=1572)	Difference	P-value
	Age (years)	33.4 (7.6)	32.8 (7.3)	-0.6	0.013
Education	High school (%)	20.4	27.9	7.5	<0.001
	Some college (%)	33.4	24.2	-9.2	<0.001
	College (%)	42.0	14.1	-27.9	<0.001
	Employed (%)	67.9	45.8	-22.1	<0.001
	Married (%)	63.2	55.2	-8.0	<0.001
	Health insurance coverage (%)	85.8	45.9	-39.9	<0.001
	County unemployment rate over past year (%)	7.26	7.74	0.48	<0.001
Past year had a?	Clinical Breast Exam (%)	63.6	47	-16.5	<0.001
	Mammogram (%)	19.6	15.7	-4.0	0.002
	Pap Test (%)	61.2	55.2	-6.1	<0.001
	Check-up (%)	67.3	54.9	-12.4	<0.001

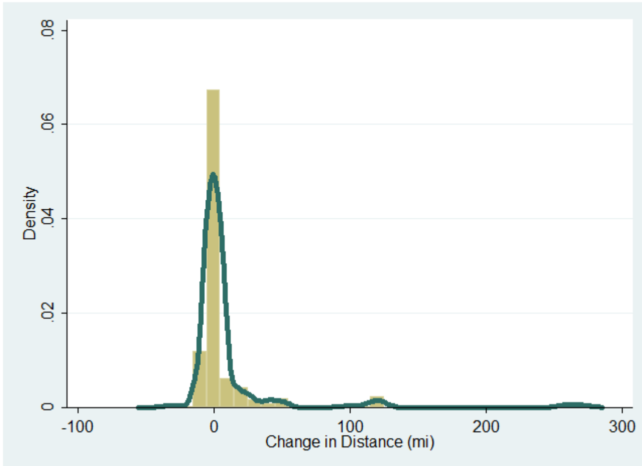
Standard errors in parenthesis. Weighted by landline-only subsample weights.

Hispanics respondents tend to be younger, less educated, less likely to be employed, married, or have health insurance coverage, and in counties with higher unemployment. Furthermore, Hispanics are significantly less likely to have health insurance and thus may be more dependent on women's clinics to obtain basic healthcare. Hispanics are also much less likely to have had breast exams, mammograms, Pap tests and checkups in the past year. These differences further motivate this paper's ethnically stratified analysis

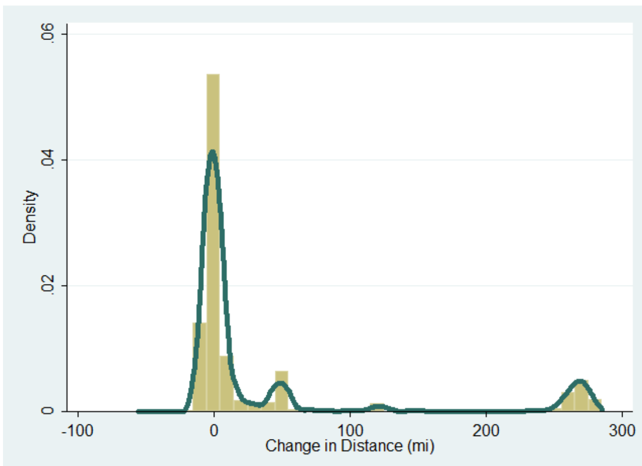
Figure 1 shows histograms of the distribution of changes in the past-year average driving distance by ZIP-codes, weighted by the respective non-Hispanic white and Hispanic populations.

Figure 1: Distribution of changes in past-year weighted average driving distance

Whites



Hispanics



Change is calculated between 8/16/2008 (the earliest interview to have a full year of data going back to October 1, 2007) and 12/31/2012. ZIP-codes with no change are excluded. Kernal density is estimated with a bandwidth of 5. Weighted by ZIP-code level 5-year average respective population.

These two figures show that while in both cases most changes in driving distance were minimal, there were more medium (~50 mile) and very large (~275 mile) increases for ZIP-codes with large Hispanic populations than for ZIP-codes with large white populations.

Table 2 contains the main results. For ease of comprehension, the results are scaled by an increase in driving distance to the nearest clinic by 100 miles. Given Figure 2 this represents a large but not implausible increase.

Table 2

Percentage point impact of an increase in average driving distance by 100 miles on share of women who had in the past year on:	Non-Hispanic Whites (N=2381)	Hispanics (N=1572)
Clinical Breast Exams	15.0 (11.8)	-11.0*** (3.8)
Mammograms	1.0 (14.5)	-2.8 (2.6)
Pap Tests	7.5 (15.2)	-8.9* (4.7)
Checkups	9.4 (7.8)	-7.6** (3.6)

	Non-Hispanic Whites (N=1825)	Hispanics (N=793)
Checkups (men)	-0.3 (18.8)	0.9 (5.2)

*p<0.1,**p<0.05,***p<0.01

Weighted by landline-only subsample weights. Standard errors in parenthesis. Controls include age, marital status, employment status, educational attainment, household income, health insurance coverage, and county-level unemployment rate.

For white women, the coefficients are not significantly different from zero, suggesting that clinic closures have no statistically significant effects on preventive care incidence for white women. For Hispanic women, increasing the driving distance to the nearest clinic reduces utilization of all four procedures. Comparing these estimates to the means in Table 1 gives relative decreases of 14-23%. While not all coefficients are statistically significant, all are of a reasonable magnitude and direction.

The last row of Table 2 contains a "placebo" test: looking at men's preventive care. The vast majority of the patients of these clinics are women, and so women's health clinic closures would be expected to have a minimal impact on men. Confirming this hypothesis, the coefficients here are both very small in magnitude and not statistically significant.

Conclusion

This paper finds that cutting women's health and family planning clinics funding and the resulting clinic closures reduced preventive care for Hispanic women, particularly breast and cervical cancer screening. This is both due to the regression estimates and the fact that Hispanic women suffered from larger increases in driving distance. These women often lack alternative nearby options that are available at low cost. They are also less likely to be able to take the time off of work to drive several more hours to the next nearest clinic and also are more likely to lack the health insurance and financial resources to pay for non-charity care (Williams et al 2014).

Policy changes often have unintended consequences which are often distributed unequally. This research demonstrates that Hispanic women are disadvantaged at a higher rate than white women, exacerbating health disparities for underserved, mostly uninsured women. As many of the affected Hispanic women may receive public or charity care in the future, this lack of access in the short term could lead to increased government liabilities in the long term, outweighing any short term budget savings. This is in addition to the increases in morbidity and mortality that could result from diminished cancer screenings and preventive care.

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