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BRIEF REPORT

Lack of Lipid Screening Disparities in Obese Latino Adults at Health Centers

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Introduction: In cross-sectional survey studies, obese Latinos are less likely to be screened for elevated serum cholesterol, despite their higher risk for hyperlipidemia and coronary artery disease. This study evaluated insurance and racial/ethnic disparities in lipid screening receipt between obese Latino and non-Hispanic white patients in Oregon community health centers (CHCs) over 5 years, using electronic health record data.

Methods: This retrospective cohort study evaluated obese (BMI $\geq$30), low-income, adult patients (aged 21−79 years) with at least one visit at an Oregon CHC during 2009–2013 (n=11,095). Odds of lipid screening in the study period (clinical data collected in 2009–2013) were measured, adjusting for age, sex, primary clinic, and comorbidities, stratified by utilization in the study period. Analysis was done in 2016.

Results: Sixty percent of the study population received at least one lipid screening in 2009−2013. There were no significant differences in screening between insured Latinos and insured non-Hispanic whites, except those with more than five visits over 5 years (OR=0.75, 95% CI=0.60, 0.94). Uninsured Latinos had higher odds of screening versus insured non-Hispanic whites among the low visit strata (OR=1.65, 95% CI=1.18, 2.30). Among Latinos, Spanish preference resulted in higher screening odds versus English preference in the two- to five-visit stratum (OR=1.63, 95% CI=1.12, 2.35).

Conclusions: Obese, low-income patients at CHCs underutilize cholesterol screening. However, screening differences by race/ethnicity and preferred language are minimal. Further research is necessary to understand how care delivered by CHCs may mitigate previously reported disparities in lipid screening.

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INTRODUCTION

Elevated serum cholesterol (or "lipids") is a known, modifiable risk factor for coronary artery disease.[1,2] Latino individuals are less likely than non-Hispanic whites to be screened for high cholesterol,[3] even though they are at higher risk for the condition.[4–6] Obesity, a known risk factor for high cholesterol,[7,8] is more prevalent in the Latino population,[6,9] but obese Latinos are less likely to be counseled on weight reduction,[10,11] screened for elevated lipids,[11] and diagnosed with a lipid disorder.[12] Research in this area has largely utilized cross-sectional methods that are unable to track services over time, or has relied on surveys that are subject to recall and other biases,[13–17] which have produced mixed findings.[18] The purpose of this study was to examine the impact of race/ethnicity, insurance, and preferred language on lipid screening among at-risk Latinos seeking care at community health centers

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Table 1. Patient Characteristics by Race/Ethnicity and Insurance Groups

Characteristic	Non-Hispanic white insured, *n* (%) (*n*=5,911)	Non-Hispanic white uninsured, *n* (%) (*n*=2,488)	Latino insured, *n* (%) (*n*=1,219)	Latino uninsured, *n* (%) (*n*=1,477)	Overall *p* value
Female	4,091 (69.2)	1,409 (56.6)	925 (75.9)	991 (67.1)	**<0.001**
Age at study initiation					**<0.001**
21–30 years	1,496 (25.3)	635 (25.5)	444 (36.4)	391 (26.5)	
31–40 years	1,466 (24.8)	595 (23.9)	373 (30.6)	560 (37.9)	
41–50 years	1,432 (24.2)	763 (30.7)	198 (16.2)	306 (20.7)	
51–60 years	1,038 (17.6)	457 (18.4)	120 (9.8)	153 (10.4)	
61–64 years	218 (3.7)	32 (1.3)	34 (2.8)	29 (2)	
≥65 years	261 (4.4)	6 (0.2)	50 (4.1)	38 (2.6)	
Insurance status					NA
Ever private	703 (11.9)	0 (0)	210 (17.2)	0 (0)	
Only public	5,208 (88.1)	0 (0)	1,009 (82.8)	0 (0)	
Uninsured at every encounter	0 (0)	2,488 (100)	0 (0)	1,477 (100)	
Language					**<0.001**
English	5,452 (92.2)	2,426 (97.5)	506 (41.5)	224 (15.2)	
Spanish	9 (0.2)	23 (0.9)	704 (57.8)	1,248(84.5)	
Other	450 (7.6)	39 (1.6)	9 (0.7)	5 (0.3)	
Office visits from 2009–2013					**<0.001**
1	702 (11.9)	819 (32.9)	150 (12.3)	329 (22.3)	
2–5	1,636 (27.7)	1,117 (44.9)	366 (30)	618 (41.8)	
>5	3,573 (60.4)	552 (22.2)	703 (57.7)	530 (35.9)	
Lipid panel					**<0.001**
Never	1,959 (33.1)	1,329 (53.4)	491 (40.3)	602 (40.8)	
Once	1,598 (27)	792 (31.8)	340 (27.9)	452 (30.6)	
More than once	2,354 (39.8)	367 (14.8)	388 (31.8)	423 (28.6)	
Hypertension					**<0.001**
Diagnosis	2,726 (46.1)	866 (34.8)	348 (28.5)	334 (22.6)	
Diabetes					**<0.001**
Diagnosis	1,416 (24)	352 (14.1)	267 (21.9)	313 (21.2)	
Heart disease					**<0.001**
Diagnosis	528 (8.9)	104 (4.2)	50 (4.1)	32 (2.2)	
Lipid disorder					**<0.001**
Diagnosis	2,598 (44)	641 (25.8)	369 (30.3)	435 (29.5)	

Note: Boldface indicates statistical significance ($p<0.05$); *p* values estimated from χ^2 test.
NA, not applicable.

(CHCs) by using an objective electronic health record data set.

METHODS

This retrospective observational cohort study examined insurance and race/ethnic disparities in receipt of lipid screening among obese CHC adult patients during 2009−2013.

Data Sample

Electronic health record data were obtained from OCHIN, Inc., a 501(c)(3) network that centrally hosts an EpiCare platform to >300 CHCs nationwide, covering >2 million patients.[19–23]

Included patients had accessed one of the 23 OCHIN-affiliated CHCs in Oregon at least once[24] during 2009−2013 (*n*=11,095) and were aged 21–79 years, low-income (<100% federal poverty level), and obese (BMI ≥30) at every visit.

Measures

Variables included race/ethnicity (Hispanic/Latino versus non-Hispanic white), preferred language (Spanish, English, other), insurance status (dichotomized as insured with Medicare, Medicaid, or private insurance at any point in the study period versus no