# State-Level Sexism and Women's **Health Care Access in the United States: Differences by Race/ Ethnicity, 2014-2019**

Kristen Schorpp Rapp, PhD, Vanessa V. Volpe, PhD, and Hannah Neukrug, BA

See also Galea and Vaughan, p. 1733, and Homan, p. 1725.

Objectives. To quantify racial/ethnic differences in the relationship between state-level sexism and barriers to health care access among non-Hispanic White, non-Hispanic Black, and Hispanic women in the United States.

Methods. We merged a multidimensional state-level sexism index compiled from administrative data with the national Consumer Survey of Health Care Access (2014–2019; n = 10898) to test associations between exposure to state-level sexism and barriers to access, availability, and affordability of health care.

Results. Greater exposure to state-level sexism was associated with more barriers to health care access among non-Hispanic Black and Hispanic women, but not non-Hispanic White women. Affordability barriers (cost of medical bills, health insurance, prescriptions, and tests) appeared to drive these associations. More frequent need for care exacerbated the relationship between state-level sexism and barriers to care for Hispanic women.

Conclusions. The relationship between state-level sexism and women's barriers to health care access differs by race/ethnicity and frequency of needing care.

Public Health Implications. State-level policies may be used strategically to promote health care equity at the intersection of gender and race/ethnicity. (Am J Public Health. 2021;111(10):1796-1805. https://doi.org/10.2105/AJPH.2021.306455)

isparities in morbidity and mortality by gender and race/ethnicity persist despite overall gains in life expectancy in the United States. 1-5 Barriers to health care access, including delays in receiving care, high cost of care, and lack of health insurance, are underlying determinants of women's health. <sup>6</sup> Both availability (i.e., frequency and consistency of needed care) and affordability barriers (i.e., cost of insurance, prescriptions, and medical bills) govern women's ability to access care.1

Even when women are insured, they use more health care services; out-ofpocket costs are a greater share of their income; they avoid needed health care because of cost; and they have difficulty paying medical bills compared with men.<sup>7</sup> Non-Hispanic Black women (hereafter, Black women) and Hispanic women also experience these barriers more frequently than non-Hispanic White women (hereafter, White women),<sup>2,3</sup> and the Affordable Care Act has not closed these gaps. 4,8 Therefore, examination of additional sociopolitical factors may identify a source of unmet health care needs for women of color.

Sexism, defined as gender inequalities in power and resources that systematically privilege men and disadvantage women,<sup>9</sup> is a significant determinant of gender gaps in access to health care. We build on Homan's 10 concept of structural sexism, which describes gender inequality in power and resources across institutional, interpersonal, and internalized levels of society. We specifically examine structural sexism as policies and institutional practices that disempower women, thereby shaping barriers to women's health care access. Structural sexism at the state level may play a role in catalyzing sociopolitical conditions important for health care access for women. 11 Following Homan, 10 we conceptualize state-level sexism as an index of economic, labor, and political inequalities between men and women, and the presence or absence of reproductive rights (i.e., abortion provider) in a given state. Research suggests that state-level voting, immigration, and employment discrimination laws can have direct and indirect consequences for health care access, particularly for Black and Hispanic women in the United States. 12

Structural sexism is a significant determinant of women's health. 10,13 However, to our knowledge, no research examines whether racial/ethnic differences exist in the relationship between state-level sexism and access to care. According to intersectionality theory, Black and Hispanic women are at greater risk for experiencing the health-related impacts of sexism than White women, because of their position within intersecting systems of oppression by both gender and race/ethnicity. 14-16 In this way, exposure to sexism has a greater impact on the health of Black and Hispanic women compared with White women. 16 Barriers to health care access for Black and Hispanic women also vary substantially by place,<sup>2,17</sup> suggesting that economic and political contexts shape the extent of these disparities. State policies also create particular care barriers for Black and Hispanic women, such as disparities in accessing family planning and abortion services.<sup>2</sup>

The current study addresses gaps in our understanding of a structural-level factor that may contribute to intersecting racial/ethnic and gender health care disparities in the United States state-level sexism. A core tenet of intersectionality is the rejection of a singleaxis approach (i.e., only examining gender or race/ethnicity), which renders the intersection of differential positions of power and disenfranchisement invisible. Therefore, we examined associations between state-level sexism. and barriers to health care access by race/ethnicity, among White, Black, and Hispanic women. In addition, we tested whether associations between statelevel sexism and barriers to care differed among Black and Hispanic women compared with White women, and whether associations between state-level sexism and barriers to care differed by frequency of needing medical care.

## **METHODS**

We compiled state-level administrative data from a variety of sources (e.g., Bureau of Labor Statistics, Guttmacher Institute) and merged them with individual-level data from the Association of American Medical Colleges' (AAMC) Consumer Survey of Health Care Access. 18 The AAMC survey is a repeat cross-sectional, online survey of adults aged 18 years and older in the United States who reported needing medical care over the past year. The AAMC used stratified sampling to collect data based on age and health insurance status, with oversamples of various subpopulations of interest (minority, rural, Medicaid recipients, etc.) in particular survey waves. We used 9 waves of the AAMC survey conducted from December 2014 to

January 2019, matching survey waves with state-level data that corresponded with the year of observation.

The analytic sample included White, Black, and Hispanic women who had at least 1 medical care visit in the past year (n = 13441). We did not have adequate sample sizes to produce reliable state-level estimates for other racial/ ethnic groups. As we were unable to investigate intersections of racial and ethnic identifications for Hispanic women given small sample sizes, we grouped all Hispanic women into a single group. Among eligible participants, 17.3% (n = 2318) were missing items measuring barriers to health care access. An additional 1.7% (n = 225) were missing data for other analytic variables. We conducted listwise deletion to limit the analysis to participants with complete data for all variables of interest, resulting in a final analytic sample size of 10898. We did not use multiple imputation to impute missing data because barriers to health care access is the primary source of missing data and imputed values for dependent variables are not typically included in regression analyses.<sup>19</sup>

Table A (available as a supplement to the online version of this article at http://www.ajph.org) compares the analytic sample to participants who were excluded from the analysis because of missing indicators of care barriers. Excluded participants were less likely to be White, to have a college degree, to be married, and to reside in a suburban location. Excluded participants were also younger, lower income, more likely to be Hispanic, and more likely to be uninsured. Given the relative social vulnerability of excluded study participants compared with the analytic sample, estimates of the relationship between state-level sexism

and barriers to care are likely conservative.

# Barriers to Health Care Access

We used 8 items from the AAMC survey to measure barriers to health care access. Four items measured availability barriers (inconsistency in ability to access care, delay in accessing care, limited choice in care, and uninsured), and 4 items measured affordability barriers (high cost of health insurance, inability to fill a prescription due to outof-pocket cost, inability to complete a medical test or treatment due to cost, and difficulty paying medical bills). We dichotomized and summed measures to create an 8-item index of all barriers to care. Because relatively few participants reported more than 5 barriers to care, we truncated the index into 6 categories, with the lowest category indicating no barriers to care and the highest category indicating 5 or more barriers. In addition, we constructed a 4-item index of availability barriers (range = 0-4) and a 4-item index of affordability barriers (range = 0-4) to examine each domain separately. Survey items included in the barriers to care indexes are described further in Table B (available as a supplement to the online version of this article at http://www.ajph.org).

### State-Level Sexism

We constructed a state-level sexism index using 7 state-level indicators from administrative data sources: ratio of (1) men's-to-women's earnings, (2) men's-to-women's employment, (3) and women's-to-men's poverty rate; (4) proportion of men in state legislature; (5) absence of a state paid family or

medical leave policy; (6) absence of state law restricting gun ownership for domestic violence offenders; and (7) proportion of women residing in a county without an abortion provider (Table C; available as a supplement to the online version of this article at http://www.ajph.org). Higher scores indicate higher levels of sexism. We collected state-level measures annually and linked them to the AAMC study based on observation year. Following Homan, <sup>10</sup> we created a continuous index of state-level sexism by standardizing state-level measures relative to the full observation period, summing standardized scores, and dividing the summed index by the standard deviation to create a continuous index with a mean of 0 and a standard deviation of 1 (Cronbach's  $\alpha = 0.70$ ).

# **Analysis**

To describe state-level measures, we calculated the mean and standard deviation for each year of observation and averaged across years. For the AAMC study, we calculated weighted descriptive statistics separately for White, Black, and Hispanic women. We conducted Pearson's  $\chi^2$  and Kruskal-Wallis H tests to examine racial/ethnic differences.

We ran ordinal logistic regressions to test for associations between statelevel sexism and barriers to health care access. We first conducted all analyses separately by race/ethnicity. To test for differences in state-level sexism and care barriers by race/ethnicity, we ran additional models using the full sample with an interaction term for state-level sexism and race/ethnicity. To test whether frequency of needing care moderated associations between statelevel sexism and barriers to care within

each racial/ethnic group, we ran models separately based on respondents' frequency of needing care, then included an interaction term for statelevel sexism and frequency of needing care within racial/ethnic groups. All models adjusted for age, household income, education, marital status, urbanicity, state-level Gini index, and whether the state had implemented Medicaid expansion since 2014. As health insurance status is an important determinant of care availability that may also influence health care affordability, all models of state-level sexism and affordability barriers adjusted for health insurance status. We did not include health insurance status as a covariate in models predicting overall barriers to care and availability barriers because "uninsured" was already included as an item in the availability barriers index. We conducted all analyses using Stata version 15<sup>20</sup> and weighted analyses using US Census weights.<sup>21</sup> To account for possible correlation of residuals within states, we clustered all regression analyses by state.

## **RESULTS**

Table 1 shows descriptive statistics for the analytic sample. Black and Hispanic respondents reported significantly more availability barriers, affordability barriers, and overall barriers to care compared with White respondents. We also found significant differences by race/ethnicity for age, income, education, marital status, urbanicity, and frequency of needing medical care.

Descriptive analysis for state-level sexism indicators is shown in Table C. At the state level, women had lower earnings, lower labor force participation, and higher poverty rates than

**TABLE 1**— Descriptive Statistics, Consumer Survey of Health Care Access: United States, 2014–2019

	Non-Hispanic White (n = 8756), Mean (SD) or %	Non-Hispanic Black (n = 1060), Mean (SD) or %	Hispanic (n = 1082), Mean (SD) or %	Racial/Ethnic Difference <i>P</i>
Barriers to health care access	1.74 (1.90)	2.04 (1.72)	2.23 (1.45)	<.001
0	32.47	27.69	24.22	
1	23.87	20.44	18.39	
2	13.81	15.09	14.82	
3	10.44	10.57	12.66	
4	9.93	14.96	16.15	
≥5	10.55	13.04	14.16	
Availability barriers	0.50 (0.89)	0.57 (0.77)	0.72 (0.70)	<.001
0	62.50	54.74	47.81	
1	24.66	30.21	33.91	
2	7.34	10.05	10.96	
3	3.97	3.57	6.17	
4	1.54	1.43	1.15	
Affordability barriers	1.26 (1.48)	1.46 (1.31)	1.57 (1.11)	< .001
0	39.52	33.92	30.38	
1	24.71	23.50	23.54	
2	14.06	12.77	15.13	
3	13.26	21.87	20.89	
4	8.45	7.95	10.06	
Age, y				< .001
18-24	12.8	17.48	28.27	
25-34	9.24	11.66	20.46	
35-44	12.73	17.53	20.63	
45-54	20.55	21.77	16.07	
55-64	20.16	19.95	8.55	
≥ 65	24.52	11.61	6.02	
Income, \$				<.001
< 25 000	19.86	17.49	20.00	
25 000-49 999	23.34	30.95	25.71	
50 000-74 999	25.92	32.72	24.58	
75 000-99 999	11.23	8.46	9.00	
≥ 100 000	19.66	10.39	20.70	
Education				.003
Less than high school	33.8	30.33	28.31	
High school degree or equivalent	4.23	5.73	5.47	
Some college	36.29	38.32	36.07	
College or more	25.68	25.63	30.15	
Marital status				<.001
Single, never married	18.51	46.60	29.89	
Married/cohabiting	53.23	31.24	56.15	
Widowed	9.14	4.76	3.36	

Continued

## **TABLE 1**— Continued

	Non-Hispanic White (n = 8756), Mean (SD) or %	Non-Hispanic Black (n = 1060), Mean (SD) or %	Hispanic (n = 1082), Mean (SD) or %	Racial/Ethnic Difference <i>P</i>
Divorced	17.24	14.56	9.33	
Separated	1.89	2.84	1.27	
Urbanicity				<.001
Suburban	47.75	42.37	39.64	
Urban	24.24	45.76	48.85	
Rural	28.01	11.88	11.50	
Needed care ≥ 2 times	53.38	44.53	37.28	<.001
Has health insurance	92.99	90.50	93.30	.08

Note. The sample size was n = 10 898. For barriers to health care access, availability barriers, affordability barriers, age, income, and educational attainment, we used the Kruskal-Wallis H test to test for racial/ethnic differences. For marital status, urbanicity, needed care 2 or more times, and has health insurance, we used the Pearson's  $\chi^2$  test to test for racial/ethnic differences.

men. Women were also underrepresented in state legislatures relative to men. Most states (94%) had no paid family medical leave policy during the observation period and no policy prohibiting gun ownership for people charged with domestic violence (65%). The average proportion of women residing in counties without an abortion provider was 46%. See Table D (available as a supplement to the online version of this article at http://www. ajph.org) for state-level sexism rankings.

We tested associations between state-level sexism and barriers to health care access among White, Black, and Hispanic women (Table 2). Associations between state-level sexism and barriers to health care access were nonsignificant for White women in our sample. By contrast, for each standard deviation increase in state-level sexism, Black women had 18% higher odds of experiencing an additional barrier to health care access (adjusted odds ratio [AOR] = 1.18; 95% confidence interval [CI] = 1.02, 1.36). In addition, Black and Hispanic women residing in states higher in state-level sexism reported

more affordability barriers (AOR = 1.21; 95% CI = 1.06, 1.37 for Black women; AOR = 1.25; 95% CI = 1.06, 1.48 for Hispanic women). Additional analyses (Tables E and F; available as a supplement to the online version of this article at http://www.ajph.org) show that associations between state-level sexism, overall barriers to care, and affordability barriers differ significantly by race/ ethnicity, particularly at higher values of state-level sexism.

Figure 1 plots predicted probabilities of experiencing barriers to health care access by degree of state-level sexism. We derived all plots from models that include the full analytic sample and sexism-by-race/ethnicity interactions, holding all other covariates at their mean values. For ease of visualization, we estimated predicted probabilities from logistic regression models with dichotomized barriers to care indicators. To dichotomize barriers to care indexes, participants in approximately the bottom 3 quartiles of each index were coded as 0, and participants in approximately the top quartile of each index were coded as 1. The predicted probability of being in the top quartile

for overall barriers to care (experiencing 4 or more barriers) was 34% for Black women residing in states that were high in sexism, compared with 14% for Black women in states that were low in sexism (Figure 1a). Hispanic women also had a higher predicted probability of experiencing barriers in states that were high in sexism (26% in states with high state-level sexism vs 19% in states low in sexism), but the associations for Hispanic women and for White women did not differ significantly. Associations between state-level sexism and availability barriers (Figure 1b) did not significantly differ by race/ ethnicity. Finally, the predicted probability of being in the top quartile for affordability barriers (experiencing 3 or more affordability barriers) increased from approximately 19% in states that were low in sexism to 35% in states that were high in sexism among Black and Hispanic women, but did not change significantly for White women (Figure 1c).

Follow-up analyses determined whether associations between statelevel sexism and barriers to care differed by frequency of needing care

**TABLE 2**— Associations Between State-Level Sexism and Barriers to Health Care Access Among Non-Hispanic White, Non-Hispanic Black, and Hispanic Women: Consumer Survey of Health Care Access, United States, 2014–2019

	White (n = 8756), AOR (95% CI)	Black (n = 1060), AOR (95% CI)	Hispanic (n = 1082), AOR (95% CI)
State-level sexism and:			
Barriers to care (full index)	0.98 (0.91, 1.06)	1.18 (1.02, 1.36)	1.15 (0.96, 1.38)
Availability barriers	0.96 (0.88, 1.06)	1.07 (0.87, 1.33)	1.01 (0.84, 1.22)
Affordability barriers	0.98 (0.92, 1.05)	1.21 (1.06, 1.37)	1.25 (1.06, 1.48)

Note. AOR = adjusted odds ratio; CI = confidence interval. The sample size was <math>n = 10.898. We calculated AORs from ordinal logistic regression models. The barriers to care index is a count index that ranges from 0 (no barriers to care) to 5 (5 or more barriers to care). Availability and affordability barriers range from 0 to 4 barriers. State-level sexism is a continuous index that was standardized to have a mean of 0 and a standard deviation of 1. All models adjust for age, state Gini coefficient, state Medicaid expansion, household income, education, marital status, and urbanicity with clustered standard errors by state. Affordability barriers models adjust for health insurance because insurance is not included in the affordability barriers index (but uninsured was included in the full barriers to care index and availability barriers index).

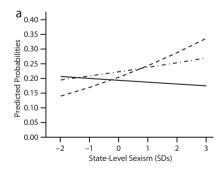
within each racial/ethnic group. More frequent need for care did not alter associations between state-level sexism and barriers among White and Black women. However, as shown in Table 3, high state-level sexism increased the odds of experiencing affordability barriers among Hispanic women with more frequent need for care (AOR = 1.48; 95% CI = 0.17, 1.87), but not among Hispanic women with less frequent need for care (AOR = 1.15; 95% CI = 0.93, 1.41).

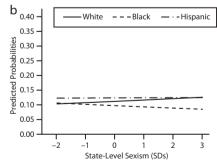
## **DISCUSSION**

This investigation examined structural-level social determinants of health, including those embedded in laws and policies, to advance health equity research. Present research examines the role of structural oppression (e.g., racism, sexism) on disparities in morbidity and mortality, but research on health care access remains limited. We addressed this gap by examining associations between state-level sexism

and both health care accessibility and affordability barriers. We took an intersectionality approach, examining these associations at the intersection of race/ethnicity and gender to understand structural-level determinants of health care access.

We found no association between state-level sexism and access to care for White women. Previous investigations of race/ethnicity in the association between state-level sexism and health drew different conclusions. Homan<sup>10</sup>





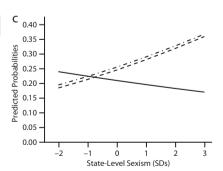


FIGURE 1— Predicted Probabilities of Experiencing Barriers to Health Care Access by State-Level Sexism Among Non-Hispanic White, Non-Hispanic Black, and Hispanic Women for (a) All Barriers to Care, (b) Availability Barriers to Care, and (c) Affordability Barriers to Care: United States, 2014–2019

Note. The sample size was n = 10898. Figure 1a shows predicted probabilities of experiencing 4 or more barriers to care (reported by 23% of the sample) for each standard deviation of state-level sexism. Figure 1b shows the predicted probabilities of experiencing 2 or more availability barriers (reported by 14% of the sample) by state-level sexism. Figure 1c shows the predicted probabilities of experiencing 3 or more affordability barriers (reported by 24% of the sample) by state-level sexism.

 
 TABLE 3— Associations Between State-Level Sexism and Affordability Barriers to Health Care Access
 Among Non-Hispanic White, Non-Hispanic Black, and Hispanic Women, Stratified by Frequency of Need for Care: Consumer Survey of Health Care Access, United States, 2014-2019

	White		Black		Hispanic	
	Needed Care 1 Time (n = 4120), AOR (95% CI)	Needed Care ≥ 2 Times (n = 4636), AOR (95% CI)	Needed Care 1 Time (n = 564), AOR (95% CI)	Needed Care ≥ 2 Times (n = 496), AOR (95% CI)	Needed Care 1 Time (n = 649), AOR (95% CI)	Needed Care ≥ 2 Times (n = 433), AOR (95% CI)
State-level sexism and affordability barriers	0.92 (0.84, 1.01)	1.04 (0.95, 1.13)	1.19 (0.98, 1.45)	1.20 (0.96, 1.48)	1.15 (0.93, 1.41)	1.48 (1.17, 1.87)

Note. AOR = adjusted odds ratio; CI = confidence interval. The sample size was n = 10 898. We calculated AORs from ordinal logistic regression models. The affordability barriers index is a count index ranging from 0 to 4 barriers. State-level sexism is a continuous index that was standardized to have a mean of 0 and a standard deviation of 1. All models adjust for age, state Gini coefficient, state Medicaid expansion, income, education, marital status, urbanicity, and health insurance with clustered standard errors by state.

did not find a significant interaction between state-level sexism and race/ ethnicity on women's physical health and functioning. By contrast, Kawachi et al.<sup>23</sup> found that state-level sexism indicators were significantly associated with White women's mortality rates, whereas only the number of women in elected office was significantly associated with Black women's mortality rates. These studies have examined state-level sexism and health outcomes, rather than health care access outcomes. Perhaps state-level sexism affects White women's health but not access to care. Although access to care and health outcomes should be linked, access to care is only a portion of what contributes to health status.<sup>2</sup> From an intersectionality perspective, state-level sexism may not result in reduced access for White women because of the protection they experience as a result of their racial privilege, 24 or perhaps because US state-level policies are most often racialized, resulting in different "race-gendered" outcomes.<sup>25</sup> White women may not experience decremented access as a result of state-level sexism because many statelevel policies privilege White women

compared with women of color in terms of health care access and socioeconomic resources. 26,27 Further research is necessary to test such propositions. Differences between current results and previous studies may also be due to differences in the indicators of state-level sexism used, years of observation, and samples represented.

For Black and Hispanic women, higher state-level sexism was associated with more barriers to accessing care. Studies that examine intersectional race/ethnicity and gender effects support this finding. Brown et al.<sup>27</sup> found that Black and Mexican American women had worse self-rated health than White individuals, beyond the effects of race/ethnicity or gender alone, a phenomenon they refer to as "multiple hierarchy stratification" of health inequities. This may be because Black and Hispanic women experience multiple forms of structural oppression that synergistically constrain interactions with the health system and affect subsequent health outcomes. 15 In support of this notion, Manuel<sup>8</sup> found that health care access barriers have persisted for both Black and Hispanic women despite the Affordable Care

Act, suggesting that these women face unique barriers to accessing care.

Affordability barriers appeared to drive the associations between statelevel sexism and overall barriers to care for Black and Hispanic women. Black and Hispanic populations in the United States are socioeconomically disenfranchised, with overall lower socioeconomic status, mobility, and resources compared with White individuals.<sup>28</sup> Although we controlled for insurance status, other cost barriers may be salient for Black and Hispanic women. For example, in 1 investigation, 28.3% of Black women reported not being able to see a doctor because of cost barriers, and about 1 out of every 2 Black women owed money to a medical facility.<sup>29</sup> Hispanic women also report experiencing more delay in care because of cost barriers.<sup>2</sup> Brown et al.<sup>27</sup> found that Black and Mexican American women may not experience as many health gains from increased socioeconomic status indicators compared with White men and women. Although Black and Hispanic women's experiences of state-level sexism and affordability barriers may differ, our study suggests that state-level sexism may be a deleterious

social determinant of health for these women. Elucidating mechanisms through which Black and Hispanic women face affordability barriers to care through state-level sexism is an important future direction.

More frequently needing care exacerbated the association between statelevel sexism and affordability barriers for Hispanic women. This finding is supported by previous research finding that Hispanic women are less likely to be able to access needed follow-up care. 30 Hispanic women are less likely to have a primary care physician compared with women from other racial/ ethnic groups,<sup>2</sup> perhaps because of social-structural barriers in culturally and linguistically appropriate services and anti-immigrant political climate, resulting in a lack of supportive services for both immigrant and nonimmigrant Hispanic women. 31,32 In this way, health care access barriers for Hispanic women may increase with continued need for care. In the AAMC sample, 17% of Hispanic women reported facing language barriers when communicating with a provider. State-level sexism may also intersect with state-level policies that uniquely affect Hispanic women, including enhanced immigration enforcement and restrictive immigration policies.<sup>33</sup> For example, immigration laws are a form of legal violence that restricts movement outside the home and thus limits opportunities to access formal medical care, given fear of being surveilled.<sup>34</sup> These laws may also affect equality for Hispanic women in the state-level sexism indicators that we measured—including restrictions on Hispanic women's employment and benefits, and limited opportunities for Hispanic women to hold legislative office.

## Limitations

Several limitations of the current study should be noted. First, the AAMC sample reported relatively high levels of health care access and was restricted to individuals who had at least 1 medical care visit within the past year. Although we accounted for insurance status and other health-related covariates, results do not generalize to those who did not need care or could not access care at all. Our results may underestimate the relationship between state-level conditions and access to care because those with no access to care were excluded. In addition, over 90% of the sample reported having some form of health insurance, suggesting greater access to health care compared with the US population. The analysis employed census sampling weights to ensure demographic representativeness, but results do not represent the full spectrum of health care access barriers and needs in the US population. In addition, Hispanic individuals in the United States are a large and diverse group (e.g., differing by culture, nationality, language, nativity, immigration status). Data on these dimensions were not available, which limits our understanding of the spectrum of experiences that may be relevant for the Hispanic subsample. Furthermore, other intersectional social identity positions (e.g., race/ethnicity and sexual orientation) were not examined because of the small sample sizes, but they must be incorporated into disparities research to better understand how these identities shape health care experiences. More vulnerable populations (e.g., women of color, undocumented women, queer-identifying or transgender women) are more likely to

have missing data, but they are some

of the most important populations to reach. Finally, we did not have adequate data to examine gender identity (cisgender, transgender, or nonbinary identity). As trans and nonbinary populations experience substantial barriers to accessing health care because of discriminatory policies, 13,35 further research is needed to understand health care disparities at these intersections. Future research should also consider incorporating additional reproductive rights indicators of statelevel sexism.

# **Public Health Implications**

Krieger<sup>13</sup> emphasizes the power of systems in creating and upholding health inequities. The current study suggests that state-level sexism, as one such system, is important for the health care access of women of color. State-level sexism may be a less central social determinant of health care access for White women, but it may be especially salient for Black and Hispanic women. Higher state-level sexism was specifically associated with affordability barriers for Black and Hispanic women, suggesting that equitable state-level policies across economic, labor force, political, and reproductive rights realms may be especially impactful public health interventions to increase women's availability of socioeconomic resources for health care. The relationship between state-level sexism and Hispanic women's barriers to accessing care was also strongest among those who needed more frequent care, suggesting that examination of state policies that directly or indirectly affect Hispanic women will be fruitful for reducing health care disparities.

This study implicates state-level indicators of sexism that may together affect equitable health care access for women, especially those most marginalized in our society. Evaluation, revision, and creation of state-level policies may be used more strategically to support women's health care access if leaders are committed to ensuring gender equity in power and resources, and if they approach policymaking with an intersectionality framework. Public health professionals are instrumental in leading and supporting these efforts to achieve health equity. AJPH

#### **ABOUT THE AUTHORS**

Kristen Schorpp Rapp is with the Department of Sociology and Public Health, Roanoke College, Salem, VA. Vanessa V. Volpe and Hannah Neukrug are with the Department of Psychology, College of Humanities and Social Sciences, North Carolina State University, Raleigh.

#### **CORRESPONDENCE**

Correspondence should be sent to Kristen Schorpp Rapp, PhD, Department of Sociology and Public Health, Roanoke College, 221 College Lane, Salem, VA 24153 (e-mail: schorpp@roanoke.edu). Reprints can be ordered at http://www.ajph.org by clicking the "Reprints" link.

## **PUBLICATION INFORMATION**

Full Citation: Rapp KS, Volpe VV, Neukrug H. State-level sexism and women's health care access in the United States: differences by race/ ethnicity, 2014-2019. Am J Public Health. 2021; 111(10):1796-1805.

Acceptance Date: June 16, 2021.

DOI: https://doi.org/10.2105/AJPH.2021.306455

## **CONTRIBUTORS**

K. S. Rapp and V. V. Volpe, who contributed equally to this work, conceptualized the study, curated the data, interpreted the results, and drafted the article. K.S. Rapp analyzed the data. H. Neukrug assisted in interpreting the results and drafting the article. All of the authors contributed to editing the article for publication.

#### **ACKNOWLEDGMENTS**

This material is based on data provided by the Association of American Medical Colleges (AAMC) to the principal investigators (K.S. Rapp and V.V. Volpe) and their team.

Note. The views expressed herein are those of the authors and do not necessarily reflect the position or policy of the AAMC.

#### **CONFLICTS OF INTEREST**

The authors declare no conflicts of interest

#### **HUMAN PARTICIPANT PROTECTION**

Because the current study used secondary data without identifiers, it was ruled exempt by the Roanoke College institutional review board.

#### **REFERENCES**

- 1. Gulliford M, Figueroa-Munoz J, Morgan M. What does "access to health care" mean? J Health Serv Res Policy. 2002;7(3):186-188. https://doi.org/10. 1258/135581902760082517
- 2. James C, Salganicoff A, Thomas M, Ranji U, Lillie-Blanton M, Wyn R. Putting women's health care disparities on the map: examining racial and ethnic disparities at the state level. June 2009. Available at: https://www.kff.org/wp-content/uploads/ 2013/01/7886.pdf. Accessed August 22, 2020.
- 3. Sommers BD, McMurtry CL, Blendon RJ, Benson JM, Sayde JM. Beyond health insurance: remaining disparities in US health care in the post-ACA era. Milbank Q. 2017;95(1):43-69. https://doi.org/ 10.1111/1468-0009.12245
- 4. Lee H, Porell FW. The effect of the Affordable Care Act Medicaid expansion on disparities in access to care and health status. Med Care Res Rev. 2020;77(5):461-473. https://doi.org/10.1177/ 1077558718808709
- 5. Woolf SH, Shoomaker HS. Life expectancy and mortality rates in the United States, 1959-2017. /AMA. 2019;322(20):1996-2016. https://doi.org/ 10.1001/jama.2019.16932
- 6. Rustgi SD, Doty MM, Collins SR. Women at risk: why many women are forgoing needed health care. The Commonwealth Fund. May 2009. Available at: https://www.commonwealthfund.org/ sites/default/files/documents/\_\_media\_files\_ publications\_issue\_brief\_2009\_may\_women\_at\_ risk\_pdf\_1262\_rustgi\_women\_at\_risk\_issue\_brief\_ final.pdf. Accessed June 10, 2020.
- 7. Patchias FM, Waxman I, Women and health coverage: a framework for moving forward. The Commonwealth Fund. April 2007. Available at: https://www.issuelab.org/resources/11690/ 11690.pdf. Accessed June 12, 2020.
- 8. Manuel JI. Racial/ethnic and gender disparities in health care use and access. Health Serv Res. 2018;53(3):1407-1429. https://doi.org/10.1111/ 1475-6773.12705
- 9. Ridgeway CL, Correll SJ. Unpacking the gender system: a theoretical perspective on gender beliefs and social relations. Gend Soc. 2004;18(4): 510-531. https://doi.org/10.1177/ 0891243204265269
- 10. Homan P. Structural sexism and health in the United States: a new perspective on health inequality and the gender system. Am Sociol Rev. 2019;84(3):486-516. https://doi.org/10.1177/ 0003122419848723
- 11. Montez K, Beckfield J, Cooney JK, et al. US state policies, politics, and life expectancy. Milbank Q. 2020;98(3):668-699. https://doi.org/10.1111/ 1468-0009.12469
- 12. Taylor C. Health consequences of laws and public policies that target, or protect, marginalized

- populations. Sociol Compass. 2019;14(2):1-13. https://doi.org/10.1111/soc4.12753
- 13. Krieger N. Measures of racism, sexism, heterosexism, and gender binarism for health equity research: from structural injustice to embodied harm—an ecosocial analysis. Annu Rev Public Health. 2020;41(1):37-62. https://doi.org/10. 1146/annurev-publhealth-040119-094017
- 14. Crenshaw K. Mapping the margins: intersectionality, identity politics, and violence against women of color. Stanford Law Rev. 1991;43(6): 1241-1299. https://doi.org/10.2307/1229039
- 15. Bowleg L. The problem with the phrase women and minorities: intersectionality—an important theoretical framework for public health. Am I Public Health. 2012;102(7):1267-1273. https:// doi.org/10.2105/AJPH.2012.300750
- 16. Krieger N. Racial and gender discrimination: risk factors for high blood pressure? Soc Sci Med. 1990;30(12):1273-1281. https://doi.org/10.1016/ 0277-9536(90)90307-E
- 17. National Partnership for Women and Families. Black women experience pervasive disparities in access to health insurance. April 2019. Available at: https://www.nationalpartnership.org/ourwork/resources/health-care/black-womenshealth-insurance-coverage.pdf. Accessed August
- 18. Consumer Survey of Health Care Access. Washington, DC: American Association of Medical Colleges; 2019.
- 19. von Hippel PT. Regression with missing Ys: an improved strategy for analyzing multiply imputed data. Sociol Methodol. 2007;37(1):83-117. https:// doi.org/10.1111/j.1467-9531.2007.00180.x
- 20. Stata Statistical Software: Release 15. College Station, TX: StataCorp LLC; 2017.
- 21. American Association of Medical Colleges. Data highlights: consumer survey of health care access. January 2021. Available at: https://www. aamc.org/what-we-do/mission-areas/health-care/ workforce-studies/resources. Accessed January 14, 2021.
- 22. Lutfey Spencer K, Grace M. Social foundations of health care inequality and treatment bias. Annu Rev Sociol. 2016;42(1):101-120. https://doi.org/ 10.1146/annurev-soc-081715-074226
- 23. Kawachi I, Kennedy BP, Gupta V, Prothrow-Stith D. Women's status and the health of women and men: a view from the states. Soc Sci Med. 1999; 48(1):21-32. https://doi.org/10.1016/S0277-9536(98)00286-X
- 24. Colen CG, Geronimus AT, Bound J, James SA. Maternal upward socioeconomic mobility and black-white disparities in infant birthweight, Am I Public Health. 2006;96(11):2032-2039. https:// doi.org/10.2105/AJPH.2005.076547
- 25. Reingold B, Smith AR. Welfare policymaking and intersections of race, ethnicity, and gender in US state legislatures. Am J Pol Sci. 2012;56(1):131-147. https://doi.org/10.1111/j.1540-5907.2011. 00569.x
- 26. Assari S. Health disparities due to diminished return among Black Americans: public policy solutions. Soc Issues Policy Rev. 2018;12(1):112-145. https://doi.org/10.1111/sipr.12042
- 27. Brown TH, Richardson LJ, Hargrove TW, Thomas CS. Using multiple-hierarchy stratification and life course approaches to understand health inequalities: the intersecting consequences of race, gender, SES, and age. J Health Soc Behav.

#### 2016;57(2):200-222. https://doi.org/10.1177/ 0022146516645165

- Kochhar R, Fry R. Wealth inequality has widened along racial, ethnic lines since end of Great Recession. Pew Research Center. December 12, 2014. Available at: https://www.pewresearch.org/ fact-tank/2014/12/12/racial-wealth-gaps-greatrecession. Accessed September 15, 2020.
- Jones L, Shivaji S, Cosby AG, Welford E. Access to care. In: Cosby AG, Jones WA, Jones LB, Shivaji S, eds. What If We Were Equal: A Mississippi Health Assessment. Social Science Research Center at Mississippi State University; 2010: 179–198.
  Available at: https://www.ssrc.msstate.edu/wpcontent/uploads/2016/11/6-access-091510SmallestSize.pdf. Accessed September 15, 2020
- Ferrante JM, Rovi S, Das K, Kim S. Family physicians expedite diagnosis of breast disease in urban minority women. J Am Board Fam Med. 2007;20(1):52–59. https://doi.org/10.3122/jabfm. 2007.01.060117
- DuBard CA, Gizlice Z. Language spoken and differences in health status, access to care, and receipt of preventive services among US Hispanics. Am J Public Health. 2008;98(11):2021–2028. https://doi.org/10.2105/AJPH.2007.119008
- Luque JS, Soulen G, Davila CB, Cartmell K. Access to health care for uninsured Latina immigrants in South Carolina. BMC Health Serv Res. 2018;18(1): 310. https://doi.org/10.1186/s12913-018-3138-2
- White K, Yeager VA, Menachemi N, Scarinci IC. Impact of Alabama's immigration law on access to health care among Latina immigrants and children: implications for national reform. *Am J Public Health*. 2014;104(3):397–405. https://doi.org/10. 2105/AJPH.2013.301560
- Cervantes AG, Menjívar C. Legal violence, health, and access to care: Latina immigrants in rural and urban Kansas. J Health Soc Behav. 2020;61(3): 307–323. https://doi.org/10.1177/ 0022146520945048
- Goldenberg T, Reisner SL, Harper GW, Gamarel KE, Stephenson R. State policies and healthcare use among transgender people in the US. Am J Prev Med. 2020;59(2):247–259. https://doi.org/10. 1016/j.amepre.2020.01.030

## Our Communities Our Sexual Health

# Awareness and Prevention for African Americans

Edited By: Madeline Sutton, MD, MPH; Jo A. Valentine, MSW; and William C. Jenkins, PhD, MS, MPH

This groundbreaking book provides a comprehensive historical prospective of the disproportionate burden of HIV and other sexually transmitted infections (STIs) among African Americans. Chapters that follow explore the context of HIV and STIs in African American communities and include discussions of sexuality and the roles of faith and spirituality in HIV and STI prevention efforts. Additional chapters provide insight into strategies, e.g., HIV testing, condom distribution and marketing campaigns, parent-child communication, effective clinical care and support, and partnerships, for addressing HIV and other STI-related health disparities within these communities. The book is a valuable resource for practitioners, scholars, clinicians, educators, providers, policy makers and students.



2016, 283 pp., soft cover ISBN: 978-0-87553-275-2 Order Online at www.aphabookstore.org

