


Racial and Ethnic Disparities in Provider-Related Barriers to Health Care for Children in California After the ACA

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Abstract

The aim of this study was to examine disparities in provider-related barriers to health care by race and ethnicity of children in California after the implementation of the Affordable Care Act (ACA). California Health Interview Survey child (0–11 years) survey data from 2014 to 2016 were used to conduct multivariable logistic regressions to estimate the odds of reporting any provider-related barrier, trouble finding a doctor, child's health insurance not accepted by provider, and child not being accepted as a new patient. Compared with parents of non-Latino white children, parents of non-Latino black, Latino, Asian, and other/multiracial children were not more likely to report experiencing any of the 4 provider-related barrier measures. The associations between children's race and ethnicity and parents' reports of provider-related barriers were nonsignificant. Findings demonstrate that there are no significant racial/ethnic differences in provider-related barriers to health care for children in California in the post-ACA era.

Keywords

race, ethnicity, child health services, health services accessibility, Affordable Care Act

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Introduction

Prior to the national implementation of the Patient Protection and Affordable Care Act (ACA) in 2014, racial and ethnic disparities in access to and utilization of health care among children were well documented.^{1–3} For example, compared with non-Latino “white” children, non-Latino “black” and Latino children were less likely to have a usual source of care and more likely to delay necessary care, and their parents were more likely to report financial or insurance reasons for their children not having a usual source of care and difficulties in contacting their children's providers.^{4–7} Another study found that black, Latino, and multiracial children had approximately double the odds of white children of not having a regular health care provider.⁸ Moreover, public insurance has always been an important source of coverage for children who identify as racial or ethnic minorities, where 50% of black and 47% of Latino children reported Medicaid/CHIP coverage in 2010,⁹ and that increased to

58% and 56% in 2016, respectively.¹⁰ Disparities in access to necessary health care services¹¹ and outpatient specialty care by insurance type were common pre-ACA, where, for example, 66% of simulated publicly insured children in an audit study were denied an appointment compared with 11% of privately insured children.¹²

While the ACA does not explicitly target the health care needs of children, its significant reforms have had effects on children's health care.^{13–15} For instance, uninsurance rates have declined among children who identify as racial or ethnic minority.^{16,17} Access to care improved between 2013 and 2017 (the periods right before and

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after the national implementation of the ACA), where having a usual source of care and having a routine checkup increased 2.3 and 4.7 percentage points among children, respectively.¹⁸ These recent findings provide insight into how far along we have come in reaching the Healthy People 2020 goals in reducing racial and ethnic disparities in access to care for all children.¹⁹ Nevertheless, approximately 28% of children in the United States still do not have access to essential preventive health services.²⁰ Equitable access to health care services is a social determinant of health, and research has a critical role in exploring persistent inequities, especially in vulnerable populations such as children.²¹

In California, a recent study found that compared to children with employer-sponsored insurance, children with Medi-Cal (California's Medicaid program) and privately purchased coverage are much more likely to experience provider-related barriers.²² Another study using national data before and after the implementation of the ACA found that insurance coverage and well-child visits improved for all youth, but inequities still persist in health care use, especially for Latino youth relative to white youth.²³ While racial and ethnic disparities in health care access and utilization may have improved overall post-ACA, provider-related barriers may remain. California has implemented generous health policies to improve population health, which includes allowing children to be eligible for Medi-Cal regardless of legal authorization status and increasing financial eligibility thresholds.^{24,25} Additionally, within California there are several city and county governments with progressive health programs (Healthy San Francisco's commitment to grant all San Franciscans access to health care services regardless of insurance or immigration status²⁶) available to minority, immigrant, and low-income youth.^{27,28} However, the implementation of health policies in California are offset by low-provider Medi-Cal reimbursement. For instance, California has one of the lowest rates of primary care provider acceptance of Medi-Cal coverage due to the relatively low provider rates paid by Medi-Cal and managed care plans.²⁹⁻³⁴ Under the ACA, there were increases in Medicaid reimbursement for providers from January 2013 through December 2014, but in 2015 California and several other states returned to previous reimbursement levels.^{35,36} The return to previous Medi-Cal reimbursement levels for providers resulted in a reduction in the availability of primary care providers accepting Medi-Cal, which has hampered access to care for adults receiving Medi-Cal.^{37,38} The impact of Medi-Cal reimbursement rates on primary care provider participation has led to patients suing California, where plaintiffs claim racial discrimination, since a majority of Medi-Cal enrollees are Latino.^{30,38,39}

To our knowledge, there are no studies that have assessed racial and ethnic disparities in provider-related barriers in access to care for children post-ACA. The 2014 to 2016 California Health Interview Survey (CHIS) waves added measures on provider-related barriers after implementation of the ACA. Thus, we seek to examine disparities in these new measures of provider-related barriers by children's race (black/white) and Latino ethnicity in California.

Methods

Sample

For this study, we used the child survey files (ages 0-11) of the 2014 to 2016 waves of CHIS.⁴⁰⁻⁴² CHIS is the largest landline and cell phone telephone survey in California and is a statewide representative sample of the noninstitutionalized California population with oversamples of certain smaller populations to ensure adequate samples to make regional and statewide estimates.⁴³ Participants are randomly selected from each randomly sampled and participating household throughout California.^{44,45} One child participant is randomly selected from each household as a participant, and the adult most knowledgeable about the child's health and health care responded on the child's behalf; this is typically the child's parent; thus, we refer to these adults as "parents" for brevity. For our analyses, children who were uninsured were excluded ($n = 161$), as our goal was to examine barriers to care among children who had health insurance coverage. We also excluded 122 observations from our study for parents whose educational levels were unknown, for a total unweighted sample size of 6602.

Measures

We examined 4 outcome measures. Each of these measures reflect parent-reported provider-related barriers. The questions for the measures were the following: (1) "During the past 12 months, did you have any trouble finding a general doctor or provider who would see your child?" (2) "During the past 12 months, were you told by a doctor's office or clinic that they would not accept your child as a new patient?" and (3) "During the past 12 months, were you told by a doctor's office or clinic that they did not accept your child's health care coverage?" A fourth composite dependent variable was created, reflecting if a parent reported any of the aforementioned barriers (ie, one or more). Our main independent variable of interest was parent-reported race and ethnicity of the child (non-Latino "white," non-Latino "black," Latino,

Asian, and “other/multiracial”). Covariates included being uninsured at any point in the past 12 months, insurance type (employer based, privately purchased, Medi-Cal, and other public which includes organized county programs [eg, TriCare]), language spoken at home (English only, English and one other language, and only language other than English), age, sex, parent-reported child health status (excellent or very good, good, fair or poor), parental education level (more than high school degree, high school degree, and less than high school degree), family income as a percent of the federal poverty guideline (0% to 138%, 139% to 249%, 250% to 399%, $\geq 400\%$), geographical region (urban and rural), and survey year (2014, 2015, and 2016).

Data Analysis

We used STATA 15.1 for all analyses.⁴⁶ Summary statistics and bivariate analyses were performed to describe our dependent and independent measures by children’s race and ethnicity. Multivariable logistic regressions were then run for each parent-reported provider-related barrier to compare Latino, black, Asian, and other/multiracial children, with parent reports for white children as the reference group. All multivariable logistic regression models were adjusted for health insurance type, being uninsured at any point in the last 12 months, age, sex, parent-reported child health status, parental education, language spoken at home, family income as percentage of the federal poverty guideline, geography, and survey year. Due to the complex sample design of CHIS and to account for participant nonresponse, survey weights and design variables were applied.^{47,48}

Ethical Approval and Informed Consent

We analyzed the publicly available CHIS data from the UCLA Center for Health Policy Research. CHIS has been approved by the UCLA Institutional Review Board to be compliant with human subjects requirements. CHIS furnishes the de-identified public-use file to outside researchers. Because it does not include identifiable information and is considered secondary data, this project was exempt from human subjects review.

Results

Weighted proportions of summary characteristics and bivariate statistics of our study sample are presented in Table 1. Parent-reported health insurance type for children differed by race and ethnicity with a higher proportion of parents of Latino and black children reporting Medi-Cal coverage compared with parents of white,

Asian, and other/multiracial children. Parents of Latino and black children were more likely to report that their children were in fair to poor health compared with parents of white, Asian, and other/multiracial children. A higher proportion of parents of white, Asian, and other/multiracial children reported higher levels of education compared with parents of Latino and black children. Parents of Latino and Asian children were less likely to report only English as the language spoken at home compared with parents of white, black, and other/multiracial children. Parents of Latino and black children were more likely to report family incomes between 0% and 138% of the federal poverty guideline compared with parents of white, Asian, and other/multiracial children. Most parents reported that their children reside in an urban region compared with a rural region, but parents of white children were more likely to report that they reside in a rural area.

Table 2 highlights the weighted proportions of parent-reported provider-related barriers for their children. Parents of Latino and other/multiracial children had higher rates of reporting provider-related barriers, but variation by race and ethnicity was nonsignificant. Overall, 7.8% of parents reported any provider-related barriers, 2% reported having had trouble finding a provider for their children in the past 12 months, 2.7% reported their children not being accepted as new patients by a provider, and 6.3% reported their children’s health care coverage not being accepted by a provider.

Findings from our multivariable logistic regressions are presented in Table 3. We did not find any statistically significant associations between a child’s race and ethnicity and parent-reported provider-related barriers.

Discussion

Studies prior to the ACA have found racial and ethnic disparities among children in accessing health care in the United States.^{1-3,8,49-54} This study sought to determine if there are disparities in parental reporting of provider-related barriers by children’s race and Latino ethnicity post-ACA in California. The main finding of this study is that in a large statewide representative sample, there are no significant racial or Latino ethnic disparities observed in parents’ reporting of provider-based barriers to care for their children after the implementation of the ACA.

To our knowledge, no other study has examined racial and ethnic disparities in provider-related barriers in access to care for children post-ACA. Prior studies using data before the ACA found racial and ethnic disparities in access to care among children.^{1-3,8} Studies after the ACA have shown that while insurance

Table 1. Summary and Bivariate Analysis of Sample Characteristics, Children Ages 0 to 11 Years^a.

	Race and Ethnicity						χ^2 , P Value
	Total	White	Latino	Black	Asian	Other/ Multiracial	
N	6602	2258	2997	277	587	483	
Weighted %	100	25.8	51.8	5.67	9.85	6.76	
Health insurance type							
Employer-sponsored	44.7	66.8	29.1	34.5	63.9	60.8	<.001
Privately purchased	4.3	8.7	2.4	1.3	3.6	6.1	
Medi-Cal	49.2	23.9	66.2	63.3	30.8	30.6	
Other public	1.8	0.6	2.4	0.9	1.6	2.5	
Uninsured at all in last 12 months							
Yes	2.3	1.8	3.2	1.2	0.2	1.7	.057
Age							
Mean (years)	5.5	6.1	5.4	5.2	5.5	5.3	.092
Female	49.1	48.5	51.1	47.3	46	42.8	.477
General health status							
Very good or excellent	80.4	92.7	72.9	81.9	80.8	88.4	<.001
Good	16	6.4	21.6	13.5	17.5	9.7	
Fair or poor	3.6	0.8	5.4	4.6	1.6	1.9	
Parental education							
Higher than high school degree	61.5	83.4	42.5	65.2	83.8	86.8	<.001
High school degree	21.9	13.4	29.1	29.5	10.3	10.9	
Less than high school degree	16.6	3.1	28.4	5.4	5.9	2.2	
Language spoken at home							
English only	45.7	83.1	23.8	84.4	19.4	75.9	<.001
English + other language(s)	37.8	12.8	51.8	13.5	55.3	21.4	
Only language(s) (no English)	16.5	4.1	24.4	2.1	25.3	2.7	
Family income as % of federal poverty guidelines (FPG)							
400%+ of FPG	29.8	51.8	14.6	22.1	43.3	48.3	<.001
250% to 399% of FPG	15.6	18.7	13.1	12.4	22.9	15.6	
139% to 249% of FPG	17.7	13.8	20.4	22.1	10.8	18.9	
0% to 138% of FPG	36.9	15.7	51.2	43.4	23.0	17.7	
Geography							
Urban	89.4	83.7	90.6	98.2	97.4	89.4	<.001
Rural	10.2	16.2	9.4	1.8	2.6	10.6	
Survey year							
2014	33.3	31.3	34.3	36.1	34.4	29	.118
2015	32.5	33.8	31.9	33.1	27.9	38.1	
2016	34.3	34.9	33.8	30.8	37.7	32.9	

^aColumn percent reported.

coverage and well-child visits have improved for all children, disparities still persist for minority children.²³ Importantly, a recent study using CHIS data showed that there are significant disparities according to insurance type, with children covered by Medi-Cal or private insurance faring worse in provider-based barriers than those covered by employer-based insurance. So, while we did not find racial or ethnic disparities in provider-based barriers to care, disparities still persist by insurance type in the state.²²

With California having the highest proportion and total number of foreign-born residents of any state in the country, immigrants residing there have access to health care systems that are constantly working to adapt to an ethnically diverse population.⁵³ California also has several inclusive health policies, such as ensuring that immigrants with a green card who have resided in the United States for less than 5 years and undocumented children are not excluded from enrolling in Medi-Cal.⁵⁵ Under the California Department of Public Health, there

Table 2. Summary and Bivariate Analysis of Reported Provider-Related Barrier Among Children Aged 0 to 11 Years by Race and Ethnicity^a.

	Race and Ethnicity						χ^2 P Value
	Total	White	Latino	Black	Asian	Other/ Multiracial	
N	6602	2258	2997	277	587	483	
Any barrier reported	7.8%	7.4%	8.9%	4%	3.6%	10.5%	.118
Had trouble finding a general doctor in past 12 months	2%	1%	2.4%	0.3%	2.1%	3.2%	.506
Not accepted as new patient by doctor in past 12 months	2.7%	2.5%	2.5%	2.1%	2.2%	5.7%	.122
Health care coverage not accepted by doctor in past 12 months	6.3%	6.1%	7.5%	3.5%	1.5%	7.9%	.123

^aColumn percent reported.

are efforts to achieve health equity through several programs, such as the Black Infant Health Program to reduce health inequities between white and black mothers and their infants.⁵⁶ California has also made use of incentives offered by the ACA to increase the role of community health workers in providing preventive care for Medi-Cal beneficiaries in low-resource areas, including children.⁵⁷ Additionally, the role of health care safety nets in California (eg, federally qualified health centers) support many families in obtaining needed care. For instance, in 2015 over 60% of patients who received health care services at federally qualified health centers in California were Medi-Cal beneficiaries, and 74% identified as racial/ethnic minorities.⁵⁸

While significant strides have been made in California in achieving Healthy People 2020 goals to eliminate disparities in access to care for all children,¹⁹ we found that almost 8% of all parents reported any provider-related barrier. Half of children in California are covered by Medi-Cal, and in California, there are not enough providers who accept Medi-Cal.⁵⁹ As a result, there are concerns that children covered by Medi-Cal are at risk for not receiving preventive care services through the federal Early and Periodic Screening, Diagnostic, and Treatment (EPSDT) benefit.⁶⁰ In 2017, 40% of parent calls in attempts to make any pediatric well-child appointment were unable to do so because of the low availability of providers accepting new Medi-Cal patients.⁶¹ Most recently, a survey conducted for the California Department of Health Care found that most of Medi-Cal managed care plans have performed poorly with respect to “getting needed care” and “getting care quickly” for child populations in California.⁶²

This study has limitations that should be noted. This study only used the CHIS public use file for children ages 0 to 11 years and does not include adolescents because provider-based barriers were not measured in

CHIS for adolescents. As with any cross-sectional survey, we cannot control for potential recall bias in parental reporting. Due to sample size limitations, we could not test an insurance type and race/ethnicity interaction term in our multivariable logistic regression models. Including an insurance type and race/ethnicity interaction term would have allowed us to determine how much of the association of parent reports of provider-related barriers, if any, is due to race/ethnicity or to the children’s types of insurance coverage. Another limitation of this study is our inability to determine the provider types (eg, pediatrician, family medicine, physician assistant, nurse practitioner) for potential implementation of evidence-based interventions. For instance, past evidence has suggested that levels of Medi-Cal acceptance pediatrician are modestly higher among pediatricians than among family practice or internal medicine physicians in California.⁶³ Last, this study does not capture whether parental-reported provider-related barriers led to an increase in preventable emergency department visits, delayed care, or forgone care for children based on race and ethnicity in California. This is something to consider for future studies.

Conclusion

The associations of children’s race and ethnicity and parental reports of provider-related barriers in California post-ACA were nonsignificant. Even though racial and ethnic disparities in provider-based barriers were not observed, the study did find that there are noticeable proportions of parents who continue to report such barriers. Further research is warranted to investigate the effects of health policies related to children and health care access in California, and policy and program efforts should continue to aim to reach the Healthy People 2020 goal of eliminating access to care barriers for all children.

Table 3. Multivariable Logistic Regression Results Among Children Ages 0 to 11 Years, With Survey Weights^{a,b}

	Any Barrier Reported			Trouble Finding General Provider for Child			Child Not Accepted by Provider as New Patient			Child's Coverage Not Accepted by Provider		
	OR	95% CI		OR	95% CI		OR	95% CI		OR	95% CI	
		LB	UB		LB	UB		LB	UB		LB	UB
Race and ethnicity												
White	Ref.			Ref.			Ref.			Ref.		
Latino	0.99	0.56	1.78	1.38	0.58	3.28	0.67	0.29	1.51	1.20	0.61	2.20
Black	0.37	0.11	1.29	0.19	0.03	1.25	0.67	0.06	7.17	0.38	0.09	1.63
Asian	0.45	0.16	1.27	1.70	0.47	6.10	0.75	0.13	4.32	0.25	0.03	1.86
Other/multiracial	1.37	0.60	3.13	2.85	0.67	12.1	2.16	0.68	6.89	1.22	0.47	3.19
Uninsured at any time in last 12 months												
No	Ref.			Ref.			Ref.			Ref.		
Yes	1.67	0.73	3.83	1.64	0.26	10.1	1.85	0.42	8.13	1.34	0.59	3.06
Health insurance coverage type												
Employer-sponsored insurance	Ref.			Ref.			Ref.			Ref.		
Privately purchased	2.73*	1.14	6.52	2.45	0.50	11.9	2.40	0.53	10.7	3.18	1.23	8.26
Medi-Cal	1.87	0.99	3.51	2.71*	1.19	6.15	3.03	0.92	10.1	2.05*	1.01	4.15
Other public	1.26	0.38	4.17	0.10	0.00	11.1	0.17	0.16	1.76	1.65	0.46	5.94
Age	0.97	0.91	1.03	1.04	0.92	1.18	0.95	0.85	1.07	0.96	0.90	1.02
Gender												
Male	Ref.			Ref.			Ref.			Ref.		
Female	0.76	0.50	1.16	1.04	0.42	1.59	0.77	0.38	1.61	0.78	0.48	1.27
General health status												
Very good or excellent	Ref.			Ref.			Ref.			Ref.		
Good	1.32	0.78	2.21	2.10	0.80	5.56	1.29	0.61	2.72	1.33	0.74	2.37
Fair or poor	2.16	0.87	5.37	2.99	0.75	11.8	2.84	0.73	10.9	2.39	0.92	6.23
Parental education												
Higher than high school degree	Ref.			Ref.			Ref.			Ref.		
High school degree	0.85	0.51	1.42	0.57	0.20	1.61	0.61	0.24	1.58	0.78	0.44	1.37
Less than high school degree	0.53	0.27	1.01	0.55	0.18	1.66	0.25**	0.10	0.61	0.49	0.23	1.05
Language spoken at home												
English only	Ref.			Ref.			Ref.			Ref.		
English + other language(s)	0.84	0.48	1.47	1.10	0.58	2.11	1.32	0.52	3.40	0.71	0.38	1.33
Only language(s) (no English)	0.95	0.47	1.93	1.40	0.38	5.18	2.35	0.72	7.63	0.61	0.30	1.26
Family income as % of federal poverty guidelines (FPG)												
400%+ of FPG	Ref.			Ref.			Ref.			Ref.		
250% to 399% of FPG	1.76	0.82	3.77	1.48	0.46	4.74	0.73	0.23	2.29	1.67	0.66	4.19
139% to 249% of FPG	1.82	0.82	4.03	1.75	0.59	5.24	1.81	0.45	7.31	1.58	0.64	3.90
0% to 138% of FPG	1.69	0.81	3.56	1.58	0.51	4.85	1.08	0.34	3.38	1.74	0.72	4.19
Geography												
Urban	Ref.			Ref.			Ref.			Ref.		
Rural	1.16	0.72	1.86	1.29	0.66	2.53	2.61*	1.17	5.84	1.17	0.67	2.06
N	6602			6602			6602			6602		

Abbreviations: OR, odds ratio; CI, confidence intervals; LB, lower bound; UB, upper bound.

^aExponentiated coefficients (odds ratios).^bMultivariable logistic regression adjusted for survey year.* $p < .05$. ** $p < .01$. *** $p < .001$.

Author Contributions

CKA: Contributed to conception and design; contributed to analysis; drafted the manuscript; gave final approval; agrees to be accountable for all aspects of work ensuring integrity and accuracy.

JKP: Contributed to analysis; critically revised the manuscript; gave final approval; agrees to be accountable for all aspects of work ensuring integrity and accuracy.

RMM: Contributed to analysis; critically revised the manuscript; gave final approval; agrees to be accountable for all aspects of work ensuring integrity and accuracy.

DHR: Contributed to analysis; critically revised the manuscript; gave final approval; agrees to be accountable for all aspects of work ensuring integrity and accuracy.

ANO: Contributed to conception and design; critically revised the manuscript; gave final approval; agrees to be accountable for all aspects of work ensuring integrity and accuracy.

Declaration of Conflicting Interests

The author(s) declared the following potential conflicts of interest with respect to the research, authorship, and/or publication of this article: Dr Roby served as a paid consultant on Medicaid payment issues for plaintiffs in one of these cases. His co-authorship on this article was unpaid and was not related to his previous work on that case. The remaining authors have no conflicts of interest to disclose.

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