Ohio Family Health Survey

Racial and Ethnic Inequality in Health Care Access and Quality in Ohio

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OFHS

About the Ohio Family Health Survey

With more than 51,000 households interviewed, the Ohio Family Health Survey is one of the largest and most comprehensive state-level health and insurance surveys conducted in the country. The project was managed by The Ohio State University's Ohio Colleges of Medicine Government Resource Center, and the Health Policy Institute of Ohio and the survey was conducted by Macro International. The Ohio Departments of Insurance, Job and Family Services, Health, and Mental Health, the Cleveland State University, and the Ohio Board of Regents funded the project. This current project is the third in a series of statewide health surveys, following family health surveys in 1998 and 2004.

Ohio Family Health Survey Web site (all sponsored research reports are available for download here):

http://grc.osu.edu/ofhs

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I. Abstract

Racial and ethnic inequality in health care quality and access is a well-documented problem. This report assesses the extent of racial and ethnic inequality in health care quality and access in the State of Ohio. Overall, the results show black and Hispanic disadvantage, compared to whites and Asian Americans, in usual source of health care, usual health care provider, unmet health care need, and travel time to health care provider. In addition, whites and Asian Americans are more likely than blacks and Hispanics to give their health care a positive evaluation. For measures on which comparative data are available in both 2003/4 and 2008/9, indicators suggest an overall decline in health care access and quality in Ohio.

The analysis of the data suggests that increasing insurance coverage among blacks and Hispanics in Ohio would reduce the health care disparities described here. In addition, the analysis suggests that reducing racial inequality in educational attainment and income would reduce health care disparities. Other policies that could decrease racial and ethnic inequality in health care are those that encourage a usual source of care and usual provider, language services for patients with limited English proficiency, support for community health centers, increased use of electronic medical records, transportation vouchers, increased public and provider awareness of the problem of disparities, and monitoring of the quality of health services available to disadvantaged people.

II. Introduction

Hundreds of studies have documented racial/ethnic inequality in health care access and quality (Smedley et al. 2003). For instance, blacks and Hispanics are less likely than whites to have a usual source of care. Further, when blacks and Hispanics do have a usual source of care, it is less likely to be a doctor's office compared to another type of facility (e.g., an emergency room) and less likely to include a usual health care provider. Inequality between blacks and whites in access to specialists appears to be larger than access to generalists. Finally, compared to whites and blacks, Hispanics have more limited access to care (U.S. Department of Health and Human Services 2007). The current economic downturn has led to decreased access to care nationally (American Hospital Association 2009). Before the current economic downturn, past analysis suggested that Ohio reflects national patterns of racial inequality in health care access (Lynn and Ramsini 2005).

In addition to racial/ethnic inequality in health care access, there are also gaps in health care quality. Research has shown that even within the same system of care and coverage, blacks and Hispanics are less likely to get high quality health care, meaning appropriate technical and interpersonal treatment (Smedley et al. 2003). Patients' ratings mirror these observations about quality of care. When compared to whites, blacks and Hispanics are less likely to give their health care favorable ratings (Malat

2001). Conclusions about health care quality are more complicated for Asian Americans, as results vary widely by national origin or ancestry. Available data suggest that similar racial/ethnic differences exist in patients' ratings of care quality in Ohio (Lynn and Ramsini 2005). Patients' perceptions are generally held to be useful measures of the interpersonal treatment that they receive and have real consequences in terms of patient behaviors, such as adherence to treatment recommendations (Malat 2002).

Racial and ethnic inequalities in health care access and quality are linked to larger discussions in health policy about racial and ethnic disparities in health generally. For example, the infant mortality rate for blacks is more than twice that for whites in the United States; the gap is larger in Ohio (6.7 for whites and 16.9 for blacks in 2005) (U.S. Census Bureau 2005). The constellation of inequalities in health and health care are often referred to as racial and ethnic disparities in health. Eliminating this disparity is a goal of the National Institutes of Health and requires interventions on many levels (U.S. Department of Health and Human Services 2009).

Understanding why there is racial/ethnic inequality in health care access and quality requires attention to how race/ethnicity relates to both individual resources for accessing health care as well as the health care available near one's home. Among the resources that individuals possess, insurance coverage and type of health insurance are central to individuals seeking care. Research shows that persons without insurance are less likely to have a usual source of care, less likely to have a regular physician, more likely to use emergency departments as a usual source of care, and more likely to have forgone needed care (U.S. Department of Health and Human Services 2007). Further, persons with publicly-funded insurance face more difficultly obtaining routine care because office medical practices regularly decline to accept new Medicaid patients (Hall et al. 2008). A recent analysis showed that in Ohio Medicaid reimbursements rates are less than 70 percent of Medicare reimbursement (Kaiser Family Foundation 2008).

Other individual factors could also help to account for racial/ethnic differences in health care access and quality. For instance, personal income, educational attainment, and health status are important considerations in health care access and quality assessment. These, and other factors described below, may help explain racial/ethnic differences in health care access and quality, because they vary by racial/ethnic categories in Ohio (U.S. Census Bureau 2008).

Recent research has demonstrated the influence of geographic or community factors on a variety of health-related variables. These relationships suggest a complicated relationship between health care access and quality, community variables, and race/ethnicity. When seeking specialized care, urban dwellers, which includes most blacks in Ohio, may benefit in terms of access and quality by living near major medical centers (Onega et al. 2008). In contrast to specialized care, urban residence may not confer a similarly strong protective effect for those who are economically disadvantaged and need routine care, because the poor in urban areas, where poor blacks more often live, people often receive care in emergency departments or low-cost clinics rather than

alongside more affluent residents in a doctor's office. Health care access and quality is also likely to be affected by the level of poverty and affluence in an area. A strong middle- and upper-class population helps to support quality services, because more affluent members of a community provide the economic inputs that support services and make demands that such services be provided (Wilson 1987). As economic shifts occur across Ohio, the access and quality of care for residents may be increasingly affected by county of residence.

The research presented here describes the levels of and trends in racial/ethnic inequality in health care access and quality. Differences between routine and specialized care will be described. Further, it specifies the extent to which personal resources and community factors help to explain racial/ethnic differences in 2008/9. This report answers the following questions.

- What is the extent of racial/ethnic differences in access to health care among adult Ohioans in 2008/9? What are the trends in perceived access to health care for the racial/ethnic groups between 2003/4 and 2008/9?
- To what extent do insurance coverage and type as well as other individual-level factors (e.g., income) account for racial/ethnic differences in health care access in 2008/9? To what extent do county-level factors account for racial/ethnic differences in health care access in 2008/9?
- What is the extent of racial/ethnic differences in perceived health care quality among adult Ohioans in 2008/9? What are the trends in perceived health care quality for the racial/ethnic groups between 2003/4 and 2008/9?
- To what extent do insurance coverage and type as well as other individual-level factors (e.g., income) account for racial/ethnic differences in health care quality in 2008/9? To what extent do county-level variables statistically explain racial/ethnic differences in health care quality in 2008/9?

III. Methods

Individual level data

The main source of data for this report is the 2008/9 Ohio Family Health Survey (OFHS). OFHS is a statewide, random digit dial telephone survey of over 50,000 Ohio residents. OFHS used a stratified, list-assisted sampling frame that sampled respondents using random digit dialing computer assisted telephone interviewing (CATI) methods. The sample was stratified by county with several additional samples. The six largest metropolitan counties were sub-sampled to ensure greater representation of African Americans. Additional targeted supplemental samples were drawn to ensure good representation of Asian American and Hispanic residents. Finally, a separate cell phone sample ensured good representation of younger people more often reached via cell phones. A detailed description of the survey methodology can be found in the 2008 OFHS Methodological Report (T. Duffy, et al., 2009).

Health care access is measured with several variables. First, usual source of care indicates whether there is a place where the person usually goes when they are sick or need advice about their health. This variable includes several response categories: no usual place, a doctor's office or HMO, a clinic, a hospital facility (emergency department, urgent care, or outpatient facility), or some other type of place. Second, access is also measured by whether the respondent has a usual health care provider at the place where they usually seek care. If they have no usual source of care, they were not asked this question. Third, specific problems with access to care are assessed using unmet need, which indicates whether the person did not get needed health care in the past year. Fourth, access to routine care is also measured with the item that asks how long it takes to get to the usual health care facility for routine care. This variable has a peculiar distribution because respondents tend to round such estimates to the nearest five minutes. The median time was 15 minutes. Because the variable is skewed toward short times and has an unusual shape, we recoded this variable into whether the respondent reports that it takes more than 15 minutes or 15 minutes or less to get to their usual health care facility.

Health care quality is measured by respondents' assessments of their overall health care on scale of 1 to 10. The question applied to experiences in the last year and the question was asked only of those who had received health care in the last year. Because the responses to this type of rating scale are very often skewed toward positive evaluations, the variable is recoded into a dichotomous outcome. The cut-point was determined by assessing the value at which 75 percent of the cases are above the value and 25 percent of the cases are below the value, in the 2008/9 sample. The new variable indicates dissatisfaction, with a rating of 7 or less.

This analysis is primarily interested in how the variables described above vary by race and ethnicity. According to official standards, Hispanic is an ethnicity and is measured separately from race (Office of Budget and Management 1997). We combine two survey items to create a race/ethnicity variable that includes the categories: non-Hispanic white, black, Asian, and other; and Hispanic of any race.

Insurance coverage and type is indicated in the analysis by a condensed indicator of insurance. It includes the following categories: Medicare, no Medicaid; Medicaid, no Medicare; Medicare and Medicaid; job-based; other, and none.

Several other individual level variables are included in the analysis. Educational attainment, household income, household size, age, sex, marital status, and self-rated health status are included in order to assess the extent to which these variables account for racial/ethnic differences in health care access and quality.

County-level data

Two data sets are merged to the OFHS data, using the Federal Information Processing Standards (FIPS) county codes available on the OFHS. Analysis using county-level data enables an assessment of the degree to which racial and ethnic inequality in health care access and perceived quality varies across locales in the state of Ohio. The county

is a reasonable approximation of the area within which individuals and families search for health care. Finding accessible and high-quality health care imposes time and money costs; thus, it stands to reason that residents of counties with plentiful and high-quality health care would report greater levels of access and perceived quality than residents of counties with fewer health care providers. It is also likely that racial/ethnic disparities in health care access and perceived quality will vary as a function of county-level health care supply indicators.

First, data from the American Community Survey (ACS) are used to construct measures of demographic characteristics of Ohio's counties. The ACS is the Census Bureau's relatively new survey that will eventually lead to an elimination of the "long form" questionnaire on the decennial census. The ACS contains the same population and housing variables as the decennial version, but because it is a smaller sample, the county-level estimates are subject to greater sampling variability. Despite this limitation, the ACS provides otherwise unavailable intercensal estimates.

Of primary importance are measures of economic characteristics such as the county poverty rate, calculated from the Census Bureau's poverty status definition, and the percentage of affluent residents, calculated as the percentage of families with incomes in the top decile of Ohio's family income distribution. Urban/rural differences will be assessed by an indicator of whether each county is in a metropolitan area or not, and, within metropolitan areas, whether it is the county that contains the metropolitan area's central city. This will enable an assessment of the degree to which Ohio's urban and rural residents are underserved relative to their suburban counterparts.

Second, data from the county supplement to the 2006 Behavioral Risk Factor Surveillance System (BRFSS) are used. This data set will provide three indicators of health care supply: the number of short-term general hospitals in 2004 and both general practice physicians and specialists in 2005. Each of these indicators is expressed as a rate per 100,000 persons. By using the more specific indicators from the BRFSS, rather than a summary measure (e.g., "Health Professional Shortage Areas" from the Health Resources and Services Administration), our analysis provides more detailed information on the county-level correlates of health care access and perceived quality.

Data are presented for the six most populous counties in Ohio for whites and blacks. Approximately 62 percent of the black sample and 21 percent of the white sample reside in these counties. It is not possible to present this level of detail for all counties, because there are too few cases to make reliable estimates and because it might compromise the anonymity of respondents. County-level data are suppressed when there are fewer than 100 respondents from a particular racial/ethnic group on a particular variable.

Analytic approach

The individual level analyses were carried out using the Stata/SE 10 data analysis software package. Regression analysis assessed the extent to which any observed racial/ethnic inequality can be accounted for by such factors as insurance coverage,

income, education, or marital status. It is important to recognize that if statistically adjusting for such factors reduces the size of racial/ethnic gaps in health care access and perceived quality, this does not mean that these gaps are any less "real." Rather, statistical controls for racial/ethnic inequality explain the precise mechanisms that link race and ethnicity to variation in the dependent variables. This sort of analysis can provide useful hints for policy analysts. For example, if much of observed racial/ethnic inequality in health care access disappears after controlling for insurance coverage, it follows that public policy could address persistent disparities in health care access by increasing the enrollment of minorities in health care programs. Levels of statistical significance were determined using two-tailed t-tests that adjust for complex survey design, which tends to correct for artificially deflated standard errors. In this report, statements about differences between groups are based on regression analysis results presented in the appendix. Changes in the size of the effects of independent variables were determined by t-tests for differences in means from independent samples.

Hierarchical Linear Modeling (HLM) software and techniques were used to examine county-level variation in health care access and perceived quality in 2008/9. The great benefit of the HLM statistical apparatus is its ability to differentiate between individual-level effects and contextual-level effects. The 2008/9 wave of the OFHS will be the focus of this analysis, both because it is the most recent, and because the county-level data are measured before the 2008/9 wave, which is advantageous for a causal interpretation of county-level factors. These models enable researchers to examine the effects of both individual and contextual (in this case, county-level) factors on outcomes. Levels of statistical significance are indicated on the tables. However, because the analysis includes all counties, not a probability sample of the counties, significance tests indicate particularly strong results in terms of magnitude of effects and variation. This is in contrast to the usual meaning that the parameter estimates statistically differ from those one would expect by chance.

IV. Findings

Access to Care

Usual Source of Care. Access to health care can be measured in several ways. One method is to find out where people usually seek health care. Studies have shown that people who receive their care in a doctor's office typically receive a higher quality care than people who receive care in an emergency department or public clinic or who have no usual source of care. Care is generally better in a doctor's office because more services are available, wait-times are shorter, the interaction between the doctor and patient is better, as well as other factors related to the process of care (Sox et al. 1998; Swift 2000; Devoe et al. 2003).

In Ohio, nearly 69% of the population usually seeks care from a doctor's office or HMO. Only 10% of the population usually receives care from a hospital emergency department, outpatient facility, or urgent care. About eight percent of respondents reported no usual source of medical care. (See Appendix Table 1.)

Looking at how race relates to usual source of medical care, we find racial differences among Ohio residents. (See Figure 1.) While nearly 73 percent of whites and 60 percent of Asians usually receive care in a doctor's office, only 46 percent of blacks and 37 percent of Hispanics report a doctor's office as a usual source of care. Looking at a less desirable source of care, 21 percent of blacks, but only 8 percent of whites and Asian Americans and 13 percent of Hispanics receive care from an emergency department (Appendix Table 2a). Asian Americans and Hispanics are significantly more likely than whites and blacks not to report a usual of care (Appendix Table 4d).

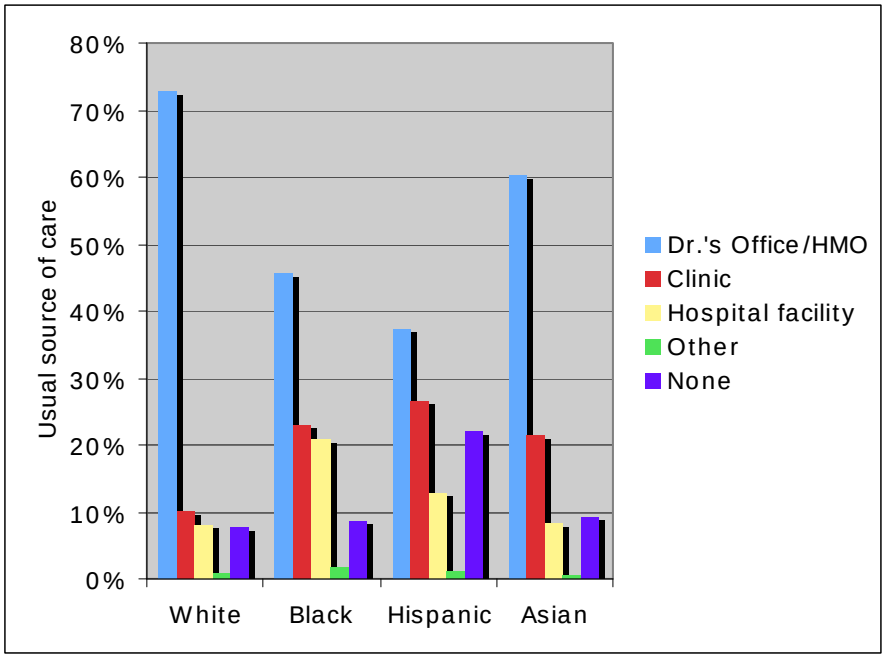

Figure 1. Usual source of care by race

Using statistics to assess the source of the racial difference can provide some insight into this inequality. Overall, people who have private insurance or Medicare are significantly more likely than other people to receive care in a doctor's office. We find that almost one-quarter of the difference between whites and blacks, and between whites and Hispanics, in receiving care at a doctor's office is accounted for by insurance coverage.* Even when taking together the effects of insurance coverage, income, education, as well as other demographic and health factors, racial inequality in using a doctor's office for care persists (Appendix Table 5a).

Because blacks and Hispanics are more likely than whites and Asian Americans to be uninsured (23% and 37% uninsured, for blacks and Hispanics respectively, versus 12% for whites and Asian Americans), and insurance coverage is associated with having a usual source of care, expanded insurance coverage could disproportionately help blacks and Hispanics improve their access to health care (Appendix Table 2c). Furthermore, some analysis suggests that the disparity between whites and blacks and

* This result is based on calculation of the change in magnitude of the racial group coefficients in Models 1 and Model 2 in Table 5a, in which race and insurance coverage are the only independent variables.

Hispanics for having a doctor's office as a usual source of care, and for no usual source of care, is smaller among those with Medicaid compared to the overall gap (Appendix Table 5a:suppl).

Comparing these patterns of source of health care to five years ago, we find some changes. We see that Hispanics are significantly less likely to use a doctor's office or an emergency department as a usual source of care than were five years ago. Instead, in 2008/9 Hispanics are more likely than five years ago to have no usual source of care or to use a clinic, relative to whites. Other racial/ethnic groups do not show a significant difference over the period. (See Appendix Tables 4 and 5.)

Statistical analysis can also assess the extent to which geographic factors account for racial inequality in where people seek health care. (See Appendix Tables 11a-d.) Focusing on particularly powerful effects, we find that residence in urban counties, rather than rural counties, tends to increase the Hispanic-white disparity in having a doctor's office as a usual source of care. Comparing blacks and whites, we find that that the black-white gap in having a doctor's office as a usual source of care is larger in urban and suburban counties, compared to rural counties.

We can look at the distribution of usual source of care for the six most populous counties in Ohio and note some interesting differences across counties. (See Table 1 below.) For example, blacks in Montgomery and Summit counties are more likely to have a doctor's office or HMO as their usual source of care compared to blacks in other counties.

Table 1. Proportion distribution of source of care by county and race

	White	Black
Usual Source of Care		
Doctor/HMO	0.73	0.46
Cuyahoga	0.68	0.37
Franklin	0.76	0.47
Hamilton	0.80	0.47
Lucas	0.74	0.37
Montgomery	0.77	0.59
Summitt	0.75	0.51
Clinic	0.10	0.23
Cuyahoga	0.13	0.31
Franklin	0.08	0.21
Hamilton	0.08	0.26
Lucas	n/a	n/a
Montgomery	n/a	n/a
Summitt	0.10	n/a
Hospital facility	0.08	0.21
Cuyahoga	0.09	0.25
Franklin	0.07	0.21
Hamilton	n/a	n/a
Lucas	0.09	0.24
Montgomery	n/a	n/a
Summitt	0.05	0.23

Note: n/a indicates fewer than 100 cases in the cell

Usual provider

One of the reasons that better care is provided in a doctor's office, compared to an emergency department or no usual source of care is that patients see the same provider every time. Seeing the same provider allows the provider to have a better understanding of the patient's health status, treatment plan, and may improve clinician-patient communication (Sox et al. 1998).

Among those Ohioans who report having a usual source of care (the last item described), more than 9 out of 10 report having a usual health care provider. It is important to keep in mind that the percent of Ohioans who do not have a usual provider is larger than the percentage reported here, because it is the sum of those who do not have a usual source of care (8.1%) and those who do have a usual source of care, but no usual provider (9.3%) (Appendix Table 1). However, because the OFHS asked about a usual provider only of those respondents who reported a usual source of care, we analyze the results accordingly.

Comparing racial/ethnic groups on having a usual provider, we find that whites are least likely not to have a usual provider with 8 percent reporting no usual provider. About 12 percent of Asian Americans and Hispanics report a usual provider, while 17 percent of blacks report no usual provider (Appendix Table 2a). (See Figure 2.) Recall that these numbers include only those with a usual source of care. If we combine those who do not have a usual source of care and those who do have a usual source, but no usual provider at that location, we would find that a higher percent of the population has no usual health care provider.

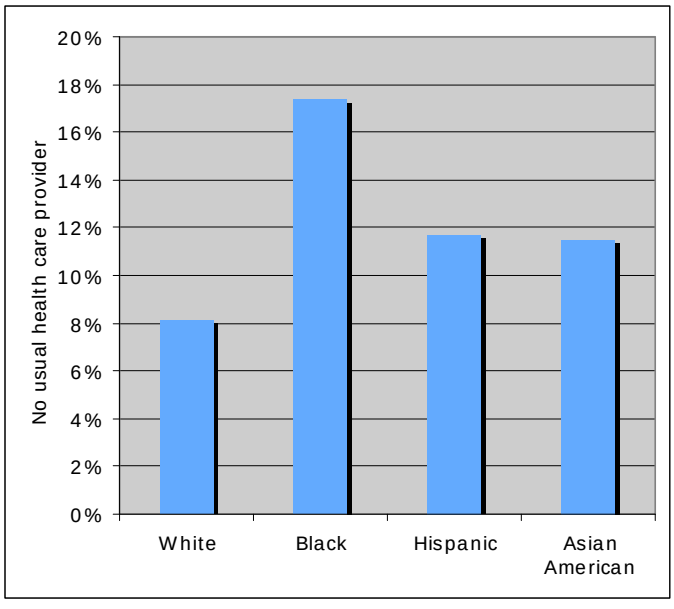

Figure 2. No usual health care provider, among those with a usual source of care, by race/ethnicity

We can use statistics to assess which factors help to account for the racial gap in having a usual provider, among those who have a usual source of care. About one-third of the gap between blacks and whites, and nearly all of the gap between Hispanics and

whites, can be accounted for by differences insurance coverage.[*] When accounting for racial group differences in insurance coverage, education, income and other factors, we still find a gap between whites and blacks, and whites and Asian Americans (Appendix Table 8). This result suggests that there is more racial inequality in having a usual provider than group differences in socio-demographic and insurance status, but these factors do help to explain the inequality.

We can assess the extent of racial/ethnic inequality in having a usual health care provider within categories of insurance coverage. (See Appendix Table 8suppl.) Doing so, we find that the gap between whites and blacks is smaller among those with Medicaid compared to those with no insurance. However, the gap between whites and Hispanics is larger among those with Medicaid compared to those with no insurance. In any case, because blacks and Hispanics are more likely than whites and Asian Americans to have no insurance coverage (Appendix Table 2c) and those with Medicaid are more likely than those without insurance to have a regular health care provider (Appendix Table 8), increasing access to Medicaid is likely to decrease inequality in having a usual health care provider.

Looking at the six most populated Ohio counties again, we find that for blacks Lucas and Franklin are the counties in which those with a usual source of care are least likely to have a usual health care provider (23% and 22%, respectively). In none of these counties does the percent of whites with no usual provider reach ten percent. (See Appendix Table 2b.)

Unmet need

An important measure of access to care is the extent to which a person felt that they needed health care, but did not receive it. Unmet need for health care can result from many factors, including insurance coverage, ability to pay co-payments or deductibles, ability to get to an appointment (e.g, time off work, transportation, etc.), as well as other factors (Bloom et al. 1997). Patients who forgo needed care can suffer more serious, and expensive, health problems in the future (Weissman et al. 1997)

Over 14 percent of Ohioans report needing health care, but not receiving it in the past year. As with other measures of access to health care, we find that blacks are disadvantaged compared to other racial/ethnic groups. About 17 percent of blacks report not receiving needed care, compared to about 14 percent of whites and Hispanics (Appendix Table 2). Asian Americans are least likely to have forgone needed care (7 percent). Unlike other measures of access to care, the gap between blacks and whites can be completely accounted for by insurance coverage, without the inclusion of other control variables (Appendix Table 9). Furthermore, the racial/ethnic gap between whites and blacks, and whites and Hispanics, is smaller among those with Medicaid compared to those with no insurance (Appendix Table 9 suppl.)

[*] This result is based on calculation of the change in magnitude of the racial group coefficients in Models 1 and Model 2 in Table 8, in which race and insurance coverage are the only independent variables.

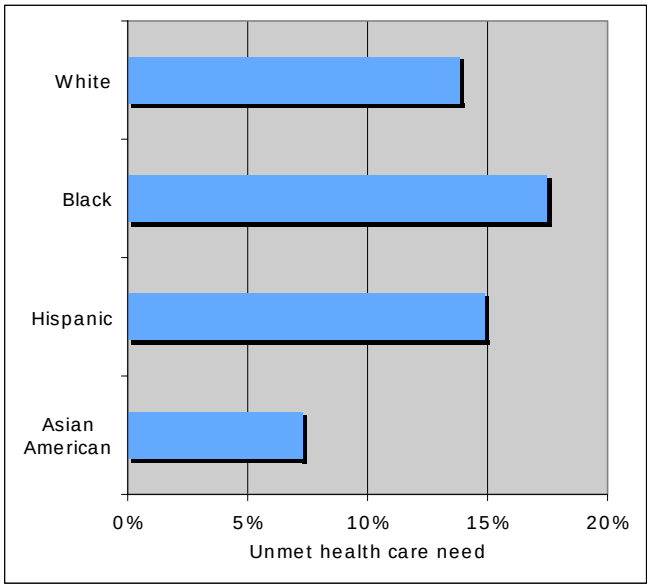

Figure 3. Unmet health care need by race

Examining the multi-level statistical models provides some additional insight into the factors associated with unmet need among the various racial/ethnic groups, because the composition of the population and the available health care facilities may affect one's ability to access care when needed. For both blacks and Hispanics, living in an urban or suburban county increases the gap with whites in having unmet health care need in the last year. For blacks, living in a county with more hospitals also tends to increase the disparity in unmet health care need.

Looking at the distribution of unmet need by county and race, we find that Lucas County has particularly high percentages of blacks (24%) whom did not receive needed care in the past year. (See Appendix Table 2.)

Table 2. Proportion distribution of unmet need by county and race/ethnicity

	White	Black	Asian American	Hispanic
County				
Cuyahoga	0.12	0.17	n/a	0.14
Franklin	0.16	0.18	0.09	0.15
Hamilton	0.11	0.15	n/a	n/a
Lucas	0.14	0.24	n/a	n/a
Montgomery	0.15	0.17	n/a	n/a
Summitt	0.15	0.16	n/a	n/a

Time to medical care

The final measure of access to care that we examine is the amount of time that it takes for people to get to their medical care. About 62 percent of respondents reported that it takes them 15 minutes or less to get to the doctor. We consider 15 minutes the "average" time to get to the doctor.

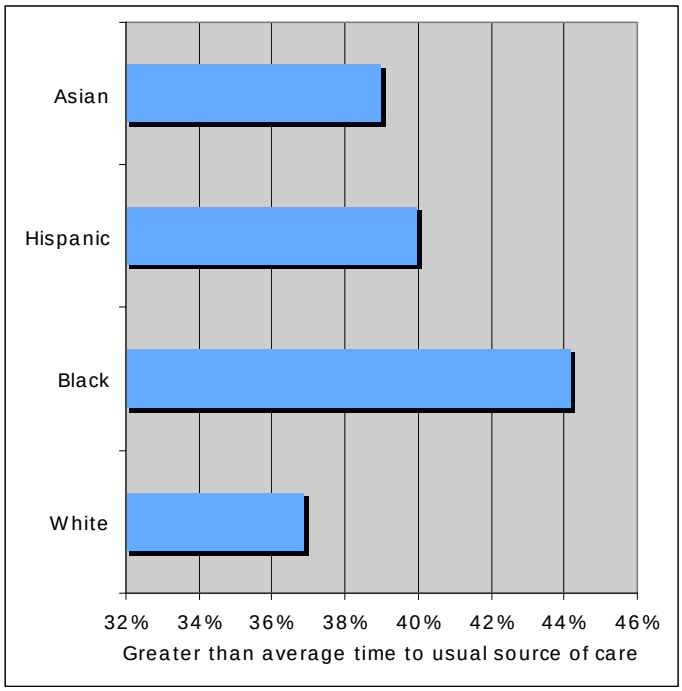

Figure 4. Greater than average time to usual source of care by race/ethnicity

Among people with a usual source of care, about 37 percent of whites report that it takes longer than 15 minutes to get to their source of care. A significantly higher percent (44%) of blacks take more than 15 minutes to get to the doctor. Nearly 29 percent of the gap between whites and blacks in time to doctor can be accounted for statistically by insurance coverage. [*] Fifty percent of the variation is accounted for by insurance and other socio-demographic factors, but these factors do not fully account for blacks' greater travel time (Appendix Table 10). There are not statistically significant differences between whites and Asian Americans or whites and Hispanics in taking more time than average to get to the doctor.

Looking at the models that include county-level variables, our results suggest that in locations where health care facilities are more densely located people are more likely to report lower travel times. For whites, living in an urban county reduces average time to get to usual source of care. The black-white gap is reduced by 13 percentage points in urban and suburban counties, compared to rural counties.

[*] This result is based on calculation of the change in magnitude of the racial group coefficients in Models 1 and Model 2 in Table 10, in which race and insurance coverage are the only independent variables.

Looking at the most populous counties, we find that blacks in Cuyahoga and Hispanics in Franklin are the only groups for whom 50 percent or more of the survey respondents reported that it takes more than 15 minutes to get to the doctor. Only in Lucas County, where 31% of blacks report above average times to get to their doctor, do we find similar reports among whites and blacks. (See Appendix Table 2b.)

Quality of care

In order to get a complete picture of the health care experience of Ohioans, we must consider more than access to care. We must also consider the quality of the care that people receive. Health care quality is highly variable, depending on insurance coverage, social class, race, where people seek care, as well as other factors (Smedley et al 2003). There are many ways to measure quality. One method is to ask patients to rate their care, which patients tend to do well (Malat 2002).

We find a large gap between the quality of care reported by whites in Ohio compared to all other racial/ethnic groups. While one in five whites reports dissatisfaction with their care, about one in three people in the other racial/ethnic groups are dissatisfied with their care (Appendix Table 2). Interestingly, the factors that account for this gap appear to vary by racial/ethnic group (Appendix Table 7). About one-third of the difference between whites and blacks is statistically accounted for by insurance coverage.[*] Including education and income helps to statistically explain 46 percent of the gap between whites and blacks. However, even when these factors, plus other individual factors are accounted for, blacks are still more likely than whites to be dissatisfied with their care. Interestingly, among those with Medicaid, there is no difference between whites and blacks in dissatisfaction (Appendix Table 7suppl).

The pattern is different for Hispanics, compared to blacks. Insurance coverage fully accounts for the statistical gap in dissatisfaction between Hispanics and whites. In contrast, none of the individual factors, such as insurance coverage, income, or education, help to explain Asian American's greater dissatisfaction with care.

Data about Ohioans' evaluation of their health care is available for 2003/4 as well. Consequently, we can examine the trend over time. The relationship among race/ethnicity, time, and dissatisfaction is shown in Figure 5. Generally, there is more dissatisfaction with care in 2008/9 than there was in 2003/4 (Appendix Table 2). The growth in dissatisfaction is greater for black and Hispanics than it is for whites. Asian Americans report less dissatisfaction in 2008/9 than in 2003/4, the only group for whom this is true (Appendix Tables 6 and 7). Among those with insurance, there is only a change in the effect of race among Asian Americans, suggesting that insurance coverage is an important part of changes in satisfaction with care.

[*] This result is based on calculation of the change in magnitude of the racial group coefficients in Models 1 and Model 2 in Table 7, in which race and insurance coverage are the only independent variables.

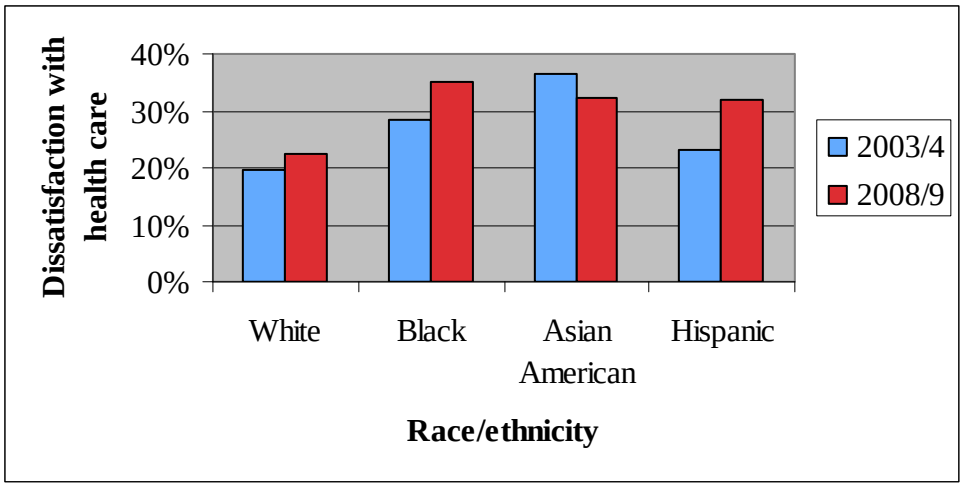

Figure 5. Dissatisfaction with health care by race/ethnicity and year

The largest effect in the models that assess the effect of county characteristics on satisfaction with care is for urban residence for blacks. Urban residence increases the black-white gap in satisfaction with care by more than 14 percentage points compared to rural residence.

When we look at average levels of dissatisfaction with care in the most populous Ohio counties, we find that the highest rate of dissatisfaction is in Lucas County. More than 40 percent of blacks and 23 percent of whites in Lucas County are dissatisfied with health care quality.

Table 3. Proportion distribution dissatisfaction with care by county and race/ethnicity

County	White	Black	Asian American	Hispanic
Cuyahoga	0.20	0.33	n/a	0.14
Franklin	0.20	0.34	0.32	0.36
Hamilton	0.20	0.35	n/a	n/a
Lucas	0.23	0.41	n/a	n/a
Montgomery	0.20	0.31	n/a	n/a
Summitt	0.22	0.38	n/a	n/a

V. Discussion

We find that there is racial and ethnic inequality on every indicator examined here. We find that whites and Asian Americans tend to report the best access to care and quality of care, while blacks and Hispanics tend to report the worst. These results reflect racial disparities throughout the country and are part of larger discussions about racial inequality in health and health care.

Statistical models suggest that insurance coverage is an important aspect of inequality in health and health care. These results also reflect broader health care patterns. People with insurance have more regular and reliable access to care than those who pay for care out-of-pocket. Furthermore, those with job-based insurance tend to have better access to care than those with state and federal programs (Shi 2000). These differences exist for many reasons. For example, many poor people find enrolling and maintaining enrollment in government programs to be difficult and time-consuming tasks. Also, some doctors refuse to accept state-sponsored insurance plans because of low reimbursement and bureaucratic hassles (Medicaid Access Study Group 1994; Berk 1998). Nonetheless, those with any kind of insurance have better access to and quality of health care than those who do not. The analyses presented here as well as a large body of research suggest that improved insurance coverage among blacks and Hispanics would reduce the racial/ethnic disparity in access to health care and satisfaction with care.

The results also suggest that education and income inequality among racial and ethnic groups results in unequal access to health care. It is likely that these effects are the result of many other factors, including factors that predict education and income and those that result from them. For instance, people with higher incomes are better able to afford co-payments and deductibles on insurance coverage. They are also more likely to be able to afford reliable transportation, which makes getting to the doctor easier. People with more education may be better able to navigate the complexity of health insurance and health care systems. Also, people with higher educations are likely to have higher paying jobs that provide high-quality job-based insurance. It is also likely that those with better jobs are more likely to have the ability to take time off work to use health care.

It is important to note that for most of the indicators of access and quality examined here, racial and ethnic disparities persist, particularly between blacks and whites, even when we account for many factors. The persistence of this gap is a challenge to policy makers in Ohio and across the country. How do we reduce the health care disparity when it is difficult to identify all of the factors responsible for it?

VI. Policy ramifications

How to reduce the health care access and quality disparity is an extremely difficult problem. The problem is difficult because there are many reasons for the disparity, which means that the solution must involve action on many fronts (Kaiser Family Foundation 2008). The problem is also difficult because the policies are aimed at a moving target—economic and demographic changes make it unlikely that a fixed set of solutions will eliminate the disparity.

As suggested by the analysis presented above, improving insurance coverage among adults in Ohio would most likely reduce the disparity in access and quality of health care. Given the expense of health insurance, programs that cover large numbers of persons helps to spread the risk and can reduce the per capita overhead cost of a

program. Ideally, the state will continue to find ways to cover as many Ohioans as possible. Currently, we have higher rates than the national averages of health insurance coverage for people in every racial and ethnic group (Kaiser Family Foundation 2009). At the same time, changes at the federal level, particularly a program that increases access to a large insurance pool, may help ease the State of Ohio's burden in covering the uninsured.

As increasing numbers of people lose their jobs and the out-of-pocket costs for health insurance increase for those with job-based insurance, insurance coverage becomes a problem for more and more people. Indeed, the analysis in this report shows declining access to care, declining satisfaction with care, and increased racial and ethnic inequality. Because blacks and Hispanics have tended to experience a decline in wealth and higher rates of unemployment over the past several years (Kochhar 2004; US Bureau of the Census 2009), the problems associated with race, ethnicity, health insurance, and access to care are unlikely to improve, and may continue to decline, without intervention.

In addition to improved access to health insurance, there are other policies that could improve health care access and quality in Ohio. It is essential to assure that high quality services are available in all Ohio communities. Because of the economic downturn, more people have begun to rely on community health centers (Kaiser Family Foundation 2009b). These facilities are often key sources of health care for people in poor neighborhoods, providing a good alternative to seeking care in a hospital emergency department. These community health centers are highly dependent on local, state, and federal funding. Therefore, while budgets are tight, continued support of these community health centers is vital.

As the Hispanic population of Ohio grows, health care facilities must be prepared to provide language translation for migrants who do not yet speak English. Although federal regulation requires that interpreter services be provided to non-English speaking patients at facilities that receive federal funds, research shows that non-English speaking patients still report problems communicating with their doctors (Waidmann and Ku 2003). Because much of the Hispanic population in Ohio lives in suburban and rural counties, a reliable service that provides interpreters where and when people seek care encourages people to seek care and improves the quality of their care. Of course, interpreter services should be provided for all persons who speak limited English. An ideal strategy will be flexible enough to provide services to new groups of migrants in the future.

Other policy interventions that would improve health care for all disadvantaged groups, and more often help minority groups, include transportation vouchers that facilitate travel to health care facilities, programs that improve the chances of having a usual health care provider, and electronic medical records that provide easy access medical history when care is received from disparate providers. The latter has been encouraged by the federal stimulus funds, which offers grants to assist with the conversion to electronic medical records. One risk with the adoption of new technology, however, is

that it may increase racial and ethnic inequality, because socially-advantaged groups are often in the best position to adopt use and have the benefits of it.

Some policy reports have suggested that improved public and health care provider awareness of health care access and quality disparities may help decrease the gap (Kaiser Family Foundation 2008). Improved awareness among the public can improve support for programs designed to reduce the disparity. It may also alert disadvantaged groups to the problem and increase vigilance regarding quality care. Increased health care provider awareness may lead to more even provision of care.

The long view of racial and ethnic inequality in health care is that to eliminate the problem in health care, we should work to eliminate inequality in other areas. For example, residential racial segregation reduces access to important resources, such as high quality education, economic opportunities, and healthful living spaces. Inequality in health care quality and access is an outcome of a larger system of racial and ethnic inequality. This larger system hurts the economic well-being of the State of Ohio and the physical and mental health of the citizens of Ohio. Research shows, for example, that greater inequality is associated with poorer health for all citizens. In the end, policies that improve the opportunities for full social and economic participation of racial and ethnic minorities in Ohio will reduce health and health care inequality in our state.

VII. Limitations and further research needs

It would be very difficult to field a survey that captured all of the factors that lead to disparities in health care access and quality. Nonetheless, there are some key questions that future research could address.

National research has documented that poor, black communities do not have access to the range of medical services in non-poor and white neighborhoods (Knudsen 2009). For example, in pharmacies in non-white neighborhoods are less likely to carry opioid analgesics (Morrison 2000). Future studies might ask Ohioans if they are able to receive necessary medical treatment from their usual source of health care. Such a study could supplement the data available in the BRFSS.

Future research that includes a more complete set of measures of patients' rating of their health care could provide more information on patients' experiences with health care providers. There are validated measures that assess patients' perceptions of how well doctors' explained their health problem and medication, listened to their health concerns, spent enough time with them, and treated them with respect. Such measures might better identify the nature of racial and ethnic disparities in health care in Ohio.

Future survey research might also ask other questions that measure patients' perceptions of health care quality. For example, respondents might be asked whether appropriate language services are provided to those with limited English proficiency. Respondents might also be asked to rate the general quality of health care services

near to where they live. Respondents might also be asked about whether they trust the health care providers that they see to help people with their health problems.

VIII. Conclusion

In conclusion, racial and ethnic inequality in health care access and quality continue to be challenges facing the State of Ohio. We find that blacks and Hispanics generally face lower health care access and quality than whites and Asian Americans in Ohio. Statistical analysis suggests that we can reduce that inequality through access to health insurance, to which the State has already shown a commitment. Continued efforts to maintain and support health insurance coverage are needed to prevent further growth in the racial disparity in health care. In addition, other targeted programs that improve health care access for all disadvantaged people and programs that aim to improve education and income for disadvantaged people will help all Ohioans.

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X. Appendices

Table 1. Descriptive Statistics of Variables, by Wave of OFHS

Variables	2003/4 N	Mean	SD	Min.	Max.	2008 N	Mean	SD	Min.	Max.
Dependent variables										
Usual source of care										
Doctor/HMO	29,000	0.701	—	0	1	47,234	0.688	—	0	1
Clinic	29,000	0.142	—	0	1	47,234	0.123	—	0	1
Hospital ED/outpatient/urgent care	29,000	0.084	—	0	1	47,234	0.097	—	0	1
Other	29,000	0.011	—	0	1	47,234	0.011	—	0	1
None	29,000	0.063	—	0	1	47,234	0.081	—	0	1
Dissatisfaction with health care quality	25,084	0.210	—	0	1	44,843	0.243	—	0	1
Does not usually see same doctor	—	—	—	—	—	44,672	0.093	—	0	1
Did not get needed care in last year	—	—	—	—	—	48,103	0.143	—	0	1
Greater than median time to routine care	—	—	—	—	—	44,780	0.379	—	0	1
Independent variables										
Individual-level										
Race/ethnicity										
Non-Hispanic white	29,270	0.847	—	0	1	48,227	0.834	—	0	1
Non-Hispanic black	29,270	0.115	—	0	1	48,227	0.109	—	0	1
Non-Hispanic Asian	29,270	0.009	—	0	1	48,227	0.016	—	0	1
Non-Hispanic other race	29,270	0.011	—	0	1	48,227	0.019	—	0	1
Hispanic of all races	29,270	0.017	—	0	1	48,227	0.022	—	0	1
Insurance type										
Medicare, no Medicaid	29,452	0.187	—	0	1	48,227	0.196	—	0	1
Medicaid, no Medicare	29,452	0.084	—	0	1	48,227	0.059	—	0	1
Medicare and Medicaid	29,452	0.046	—	0	1	48,227	0.028	—	0	1
Job-based	29,452	0.501	—	0	1	48,227	0.513	—	0	1
Other	29,452	0.056	—	0	1	48,227	0.066	—	0	1
None	29,452	0.127	—	0	1	48,227	0.138	—	0	1
Education										
Less than high school	29,452	0.103	—	0	1	48,227	0.133	—	0	1
High school	29,452	0.444	—	0	1	48,227	0.372	—	0	1
Some college	29,452	0.257	—	0	1	48,227	0.235	—	0	1
College degree	29,452	0.118	—	0	1	48,227	0.139	—	0	1
Post-graduate degree	29,452	0.074	—	0	1	48,227	0.121	—	0	1
Income (as % of poverty line)										
< 63	29,452	0.079	—	0	1	48,227	0.086	—	0	1
63-100	29,452	0.088	—	0	1	48,227	0.073	—	0	1
101-150	29,452	0.106	—	0	1	48,227	0.111	—	0	1
151-200	29,452	0.108	—	0	1	48,227	0.089	—	0	1
201-250	29,452	0.099	—	0	1	48,227	0.099	—	0	1
251-300	29,452	0.087	—	0	1	48,227	0.091	—	0	1
> 300	29,452	0.433	—	0	1	48,227	0.450	—	0	1
Age										
18-24	29,452	0.084	—	0	1	48,227	0.106	—	0	1
25-34	29,452	0.178	—	0	1	48,227	0.162	—	0	1
35-44	29,452	0.214	—	0	1	48,227	0.189	—	0	1
45-54	29,452	0.191	—	0	1	48,227	0.189	—	0	1
55-64	29,452	0.137	—	0	1	48,227	0.172	—	0	1
> 65	29,452	0.196	—	0	1	48,227	0.183	—	0	1
Female	29,452	0.616	—	0	1	48,214	0.530	—	0	1
Household size (no. of people)	29,452	2.56	1.93	1	14	48,227	2.68	2.23	1	16
At least one child in household	29,452	0.361	—	0	1	48,227	0.359	—	0	1
Married or cohabiting	29,330	0.559	—	0	1	48,036	0.600	—	0	1
Self-rated health	29,382	3.47	1.43	1	5	48,117	3.47	1.60	1	5
County-level										
Health care supply (per 100,000 population)										
Hospitals	—	—	—	—	—	88	1.9	1.4	0	6.3
General practice MDs	—	—	—	—	—	88	22.6	9.0	0	49.3
Specialists	—	—	—	—	—	88	37.7	36.9	0	206.0
Population characteristics										
Poverty rate, 2004 or 2006	—	—	—	—	—	88	11.6	3.8	3.7	23.0
% in top income decile, 2000 or 2006	—	—	—	—	—	88	7.6	4.0	2.5	26.8
County type										
Urban	—	—	—	—	—	88	0.136	—	0	1
Suburban	—	—	—	—	—	88	0.307	—	0	1
Rural	—	—	—	—	—	88	0.557	—	0	1

Notes: Data are weighted and standard deviations adjusted for design effects. Proxy respondents deleted from analysis.

Table 2a. Means of Dependent Variables, by Racial/Ethnic Group and Wave of OFHS

	2003/4					2008					2008-2003/4				
	Non-Hispanic				Hispanic	Non-Hispanic				Hispanic	Non-Hispanic				Hispanic
Dependent variables	White	Black	Asian	Other	(all races)	White	Black	Asian	Other	(all races)	White	Black	Asian	Other	(all races)
Usual place for care															
Doctor/HMO	0.738	0.483	0.606	0.608	0.462	0.729	0.458	0.604	0.605	0.372	-0.009	-0.025	-0.001	-0.003	-0.089
Clinic	0.122	0.259	0.229	0.135	0.267	0.103	0.228	0.215	0.157	0.266	-0.020	-0.030	-0.015	0.022	-0.001
Hospital ED/outpatient/urgent care	0.068	0.183	0.052	0.168	0.142	0.081	0.209	0.084	0.127	0.130	0.012	0.026	0.032	-0.041	-0.013
Other	0.010	0.010	0.017	0.014	0.013	0.010	0.018	0.006	0.015	0.012	0.000	0.007	-0.011	0.001	-0.001
None	0.061	0.065	0.096	0.075	0.116	0.076	0.088	0.091	0.095	0.220	0.016	0.022	-0.005	0.020	0.104
Dissatisfaction with health care quality	0.195	0.285	0.363	0.264	0.233	0.223	0.350	0.324	0.343	0.320	0.028	0.064	-0.039	0.080	0.087
Does not usually see same doctor	—	—	—	—	—	0.081	0.174	0.115	0.100	0.117	—	—	—	—	—
Did not get needed care in last year	—	—	—	—	—	0.138	0.174	0.073	0.229	0.149	—	—	—	—	—
Greater than median time to routine care	—	—	—	—	—	0.369	0.442	0.390	0.427	0.400	—	—	—	—	—

Notes: Data are weighted. Proxy respondents deleted from analysis.

Table 2b. Means of Race/Ethnicity and Dependent Variables in Six Urban Counties, by Racial/Ethnic Group and Wave of OFHS

	2003/4					2008				
		Non-Hispanic			Hispanic		Non-Hispanic			Hispanic
Variables	N	White	Black	Asian	(all races)	N	White	Black	Asian	(all races)
Race/ethnicity	**29,270**	**0.847**	**0.115**	**0.009**	**0.017**	**48,227**	**0.834**	**0.109**	**0.016**	**0.022**
Cuyahoga	2,573	0.665	0.282	n/a	n/a	3,914	0.666	0.260	n/a	0.027
Franklin	2,488	0.746	0.182	n/a	n/a	2,924	0.687	0.205	0.038	0.048
Hamilton	1,368	0.732	0.233	n/a	n/a	2,017	0.722	0.219	n/a	n/a
Lucas	1,511	0.782	0.178	n/a	n/a	1,798	0.760	0.167	n/a	n/a
Montgomery	1,312	0.777	0.194	n/a	n/a	1,670	0.713	0.233	n/a	n/a
Summitt	2,012	0.834	0.132	n/a	n/a	3,417	0.808	0.143	n/a	n/a
Usual place for care										
Doctor/HMO	**29,000**	**0.738**	**0.483**	**0.606**	**0.462**	**47,234**	**0.729**	**0.458**	**0.604**	**0.372**
Cuyahoga	2,511	0.665	0.374	n/a	n/a	3,821	0.676	0.372	n/a	n/a
Franklin	2,448	0.743	0.531	n/a	n/a	2,870	0.756	0.467	n/a	n/a
Hamilton	1,352	0.781	0.421	n/a	n/a	1,977	0.800	0.466	n/a	n/a
Lucas	1,485	0.779	0.522	n/a	n/a	1,755	0.738	0.373	n/a	n/a
Montgomery	1,286	0.771	0.602	n/a	n/a	1,645	0.765	0.586	n/a	n/a
Summitt	1,979	0.795	0.529	n/a	n/a	3,351	0.749	0.512	n/a	n/a
Clinic	**29,000**	**0.122**	**0.259**	**0.229**	**0.267**	**47,234**	**0.103**	**0.228**	**0.215**	**0.266**
Cuyahoga	2,511	0.162	0.319	n/a	n/a	3,821	0.134	0.307	n/a	n/a
Franklin	2,448	0.134	0.274	n/a	n/a	2,870	0.076	0.206	n/a	n/a
Hamilton	1,352	n/a	n/a	n/a	n/a	1,977	0.079	0.264	n/a	n/a
Lucas	1,485	n/a	n/a	n/a	n/a	1,755	n/a	n/a	n/a	n/a
Montgomery	1,286	n/a	n/a	n/a	n/a	1,645	n/a	n/a	n/a	n/a
Summitt	1,979	n/a	n/a	n/a	n/a	3,351	0.096	n/a	n/a	n/a
Hospital ED/outpatient/urgent care	**29,000**	**0.068**	**0.183**	**0.052**	**0.142**	**47,234**	**0.081**	**0.209**	**0.084**	**0.130**
Cuyahoga	2,511	0.091	0.234	n/a	n/a	3,821	0.094	0.247	n/a	n/a
Franklin	2,448	n/a	n/a	n/a	n/a	2,870	0.073	0.206	n/a	n/a
Hamilton	1,352	n/a	n/a	n/a	n/a	1,977	n/a	n/a	n/a	n/a
Lucas	1,485	n/a	n/a	n/a	n/a	1,755	0.089	0.235	n/a	n/a
Montgomery	1,286	n/a	n/a	n/a	n/a	1,645	n/a	n/a	n/a	n/a
Summitt	1,979	n/a	n/a	n/a	n/a	3,351	0.051	0.227	n/a	n/a
Other	**29,000**	**0.010**	**0.010**	**0.017**	**0.013**	**47,234**	**0.010**	**0.018**	**0.006**	**0.012**
Cuyahoga	2,511	n/a	n/a	n/a	n/a	3,821	n/a	n/a	n/a	n/a
Franklin	2,448	n/a	n/a	n/a	n/a	2,870	n/a	n/a	n/a	n/a
Hamilton	1,352	n/a	n/a	n/a	n/a	1,977	n/a	n/a	n/a	n/a
Lucas	1,485	n/a	n/a	n/a	n/a	1,755	n/a	n/a	n/a	n/a
Montgomery	1,286	n/a	n/a	n/a	n/a	1,645	n/a	n/a	n/a	n/a
Summitt	1,979	n/a	n/a	n/a	n/a	3,351	n/a	n/a	n/a	n/a
None	**29,000**	**0.061**	**0.065**	**0.096**	**0.116**	**47,234**	**0.076**	**0.088**	**0.091**	**0.220**
Cuyahoga	2,511	0.063	n/a	n/a	n/a	3,821	0.080	n/a	n/a	n/a
Franklin	2,448	0.068	n/a	n/a	n/a	2,870	0.081	n/a	n/a	n/a
Hamilton	1,352	n/a	n/a	n/a	n/a	1,977	n/a	n/a	n/a	n/a
Lucas	1,485	n/a	n/a	n/a	n/a	1,755	0.105	n/a	n/a	n/a
Montgomery	1,286	n/a	n/a	n/a	n/a	1,645	n/a	n/a	n/a	n/a
Summitt	1,979	n/a	n/a	n/a	n/a	3,351	0.094	n/a	n/a	n/a
Dissatisfaction with health care quality	**25,084**	**0.195**	**0.285**	**0.363**	**0.233**	**44,843**	**0.223**	**0.350**	**0.324**	**0.320**
Cuyahoga	2,195	0.228	0.309	n/a	n/a	3,664	0.196	0.333	n/a	n/a
Franklin	2,101	0.192	0.289	n/a	n/a	2,674	0.204	0.336	0.319	0.356
Hamilton	1,176	0.169	0.256	n/a	n/a	1,874	0.197	0.346	n/a	n/a
Lucas	1,298	0.211	0.263	n/a	n/a	1,656	0.229	0.409	n/a	n/a
Montgomery	1,144	0.200	0.222	n/a	n/a	1,563	0.204	0.306	n/a	n/a
Summitt	1,726	0.169	0.275	n/a	n/a	3,193	0.223	0.377	n/a	n/a
Does not usually see same doctor	—	—	—	—	—	**44,672**	**0.081**	**0.174**	**0.115**	**0.117**
Cuyahoga	—	—	—	—	—	3,635	0.084	0.168	n/a	n/a
Franklin	—	—	—	—	—	2,628	0.080	0.216	n/a	0.121
Hamilton	—	—	—	—	—	1,847	0.066	0.140	n/a	n/a
Lucas	—	—	—	—	—	1,646	0.095	0.226	n/a	n/a
Montgomery	—	—	—	—	—	1,568	0.094	0.087	n/a	n/a
Summitt	—	—	—	—	—	3,166	0.081	0.191	n/a	n/a
Did not get needed care in last year						**48,103**	**0.138**	**0.174**	**0.073**	**0.149**
Cuyahoga	—	—	—	—	—	3,901	0.121	0.172	n/a	0.144
Franklin	—	—	—	—	—	2,915	0.163	0.181	0.091	0.146
Hamilton	—	—	—	—	—	2,013	0.107	0.154	n/a	n/a
Lucas	—	—	—	—	—	1,796	0.141	0.243	n/a	n/a
Montgomery	—	—	—	—	—	1,665	0.151	0.166	n/a	n/a
Summitt	—	—	—	—	—	3,406	0.145	0.160	n/a	n/a
Greater than median time to routine care						**44,780**	**0.369**	**0.442**	**0.390**	**0.400**
Cuyahoga	—	—	—	—	—	3,644	0.344	0.499	n/a	n/a
Franklin	—	—	—	—	—	2,634	0.325	0.435	n/a	0.515
Hamilton	—	—	—	—	—	1,856	0.345	0.485	n/a	n/a
Lucas	—	—	—	—	—	1,654	0.303	0.309	n/a	n/a
Montgomery	—	—	—	—	—	1,568	0.326	0.454	n/a	n/a
Summitt	—	—	—	—	—	3,174	0.290	0.371	n/a	n/a

Notes: Data are weighted. Proxy respondents deleted from analysis. n/a indicates sample size too small for estimation.

Table 2c. Means of Inependent Variables, by Racial/Ethnic Group and Wave of OFHS

	2003/4					2008					2008-2003/4				
	Non-Hispanic				Hispanic	Non-Hispanic				Hispanic	Non-Hispanic				Hispanic
Dependent variables	White	Black	Asian	Other	(all races)	White	Black	Asian	Other	(all races)	White	Black	Asian	Other	(all races)
Insurance type															
Medicare, no Medicaid	0.200	0.118	0.052	0.185	0.094	0.206	0.158	0.096	0.183	0.088	0.006	0.039	0.045	-0.001	-0.005
Medicaid, no Medicare	0.068	0.183	0.033	0.153	0.122	0.047	0.148	0.027	0.084	0.082	-0.021	-0.036	-0.006	-0.069	-0.040
Medicare and Medicaid	0.041	0.079	0.008	0.071	0.040	0.023	0.069	0.012	0.036	0.039	-0.019	-0.009	0.004	-0.034	0.000
Job-based	0.520	0.385	0.633	0.292	0.429	0.539	0.340	0.636	0.436	0.364	0.019	-0.044	0.003	0.144	-0.066
Other	0.057	0.040	0.172	0.055	0.041	0.067	0.053	0.113	0.065	0.058	0.010	0.013	-0.059	0.010	0.017
None	0.113	0.195	0.102	0.244	0.274	0.118	0.232	0.115	0.195	0.368	0.005	0.037	0.014	-0.049	0.094
Education															
Less than high school	0.094	0.147	0.034	0.190	0.257	0.117	0.209	0.031	0.195	0.373	0.023	0.062	-0.002	0.005	0.116
High school	0.449	0.441	0.145	0.459	0.386	0.382	0.354	0.172	0.323	0.266	-0.067	-0.087	0.028	-0.136	-0.120
Some college	0.254	0.300	0.135	0.244	0.213	0.230	0.283	0.148	0.269	0.188	-0.023	-0.016	0.013	0.025	-0.025
College degree	0.124	0.068	0.263	0.077	0.094	0.147	0.087	0.249	0.092	0.084	0.022	0.018	-0.014	0.016	-0.010
Post-graduate degree	0.076	0.039	0.420	0.024	0.044	0.124	0.067	0.400	0.121	0.090	0.048	0.027	-0.020	0.096	0.046
Income (as % of poverty line)															
< 63	0.061	0.192	0.078	0.142	0.156	0.065	0.210	0.047	0.140	0.226	0.004	0.018	-0.031	-0.002	0.070
63-100	0.076	0.162	0.066	0.121	0.145	0.062	0.135	0.067	0.111	0.164	-0.014	-0.026	0.001	-0.010	0.019
101-150	0.103	0.123	0.053	0.145	0.147	0.105	0.152	0.054	0.125	0.147	0.002	0.029	0.001	-0.020	0.000
151-200	0.109	0.101	0.057	0.102	0.125	0.090	0.095	0.065	0.073	0.074	-0.019	-0.006	0.008	-0.029	-0.051
201-250	0.103	0.079	0.069	0.062	0.084	0.101	0.098	0.058	0.101	0.074	-0.002	0.019	-0.011	0.039	-0.010
251-300	0.090	0.070	0.071	0.080	0.058	0.096	0.062	0.091	0.085	0.066	0.006	-0.008	0.020	0.005	0.008
> 300	0.458	0.272	0.607	0.349	0.284	0.481	0.248	0.618	0.365	0.249	0.023	-0.025	0.011	0.016	-0.035
Age															
18-24	0.077	0.118	0.099	0.111	0.138	0.099	0.140	0.103	0.136	0.168	0.022	0.023	0.004	0.025	0.030
25-34	0.171	0.201	0.341	0.198	0.273	0.153	0.192	0.261	0.165	0.274	-0.017	-0.009	-0.080	-0.033	0.001
35-44	0.213	0.217	0.282	0.211	0.228	0.186	0.194	0.259	0.191	0.230	-0.028	-0.023	-0.023	-0.020	0.002
45-54	0.190	0.200	0.178	0.190	0.188	0.192	0.170	0.207	0.170	0.149	0.002	-0.030	0.029	-0.019	-0.040
55-64	0.138	0.145	0.067	0.116	0.091	0.177	0.160	0.082	0.165	0.089	0.039	0.014	0.015	0.049	-0.002
> 65	0.211	0.118	0.033	0.174	0.081	0.193	0.143	0.088	0.173	0.091	-0.018	0.026	0.055	-0.002	0.009
Female	0.615	0.648	0.494	0.527	0.590	0.530	0.549	0.526	0.493	0.485	-0.086	-0.100	0.031	-0.033	-0.105
Household size (no. of people)	2.549	2.504	2.798	2.814	2.963	2.680	2.492	2.995	2.701	3.275	0.131	-0.011	0.197	-0.114	0.312
At least one child in household	0.349	0.429	0.424	0.362	0.463	0.352	0.379	0.453	0.345	0.506	0.003	-0.050	0.030	-0.017	0.043
Married or cohabiting	0.595	0.296	0.676	0.529	0.548	0.636	0.307	0.707	0.540	0.626	0.042	0.012	0.031	0.011	0.078
Self-rated health	3.522	3.157	3.855	3.165	3.331	3.510	3.197	3.797	3.207	3.224	-0.012	0.041	-0.059	0.042	-0.107

Table 3. Differences in Means of Dependent Variables, by Racial/Ethnic Group and Wave of OFHS

Dependent variables	White minus				Black minus			Asian minus		Other minus
	Black	Asian	Other	Hispanic	Asian	Other	Hispanic	Other	Hispanic	Hispanic
A. 2003/4										
Usual place for care										
Doctor/HMO	0.255	0.132	0.130	0.276	-0.123	-0.125	0.021	-0.003	0.144	0.146
Clinic	-0.136	-0.107	-0.013	-0.144	0.030	0.124	-0.008	0.094	-0.038	-0.132
Hospital ED/outpatient/urgent care	-0.114	0.016	-0.099	-0.074	0.130	0.015	0.040	-0.116	-0.090	0.026
Other	0.000	-0.007	-0.004	-0.002	-0.007	-0.004	-0.002	0.003	0.004	0.001
None	-0.005	-0.035	-0.014	-0.056	-0.031	-0.009	-0.051	0.021	-0.020	-0.042
Dissatisfaction with health care quality	-0.090	-0.168	-0.068	-0.037	-0.078	0.022	0.053	0.100	0.130	0.031
Does not usually see same doctor	—	—	—	—	—	—	—	—	—	—
Did not get needed care in last year	—	—	—	—	—	—	—	—	—	—
Greater than median time to routine care	—	—	—	—	—	—	—	—	—	—
B. 2008										
Usual place for care										
Doctor/HMO	0.272	0.125	0.124	0.357	-0.146	-0.148	0.085	-0.001	0.232	0.233
Clinic	-0.126	-0.112	-0.054	-0.163	0.014	0.071	-0.038	0.057	-0.052	-0.109
Hospital ED/outpatient/urgent care	-0.128	-0.003	-0.046	-0.049	0.125	0.082	0.079	-0.043	-0.046	-0.003
Other	-0.007	0.004	-0.005	-0.001	0.011	0.002	0.006	-0.009	-0.005	0.004
None	-0.011	-0.015	-0.019	-0.144	-0.003	-0.007	-0.132	-0.004	-0.129	-0.125
Quality of care < 8	-0.126	-0.101	-0.120	-0.097	0.025	0.006	0.029	-0.019	0.004	0.023
Does not usually see same doctor	-0.093	-0.033	-0.018	-0.036	0.059	0.074	0.057	0.015	-0.002	-0.017
Did not get needed care in last year	-0.036	0.065	-0.091	-0.011	0.102	-0.055	0.026	-0.156	-0.076	0.080
Greater than median time to routine care	-0.073	-0.021	-0.059	-0.031	0.052	0.014	0.042	-0.038	-0.010	0.028
C. 2008 - 2003/4										
Usual place for care										
Doctor/HMO	0.016	-0.007	-0.006	0.081	-0.024	-0.022	0.064	0.002	0.088	0.086
Clinic	0.011	-0.005	-0.042	-0.019	-0.016	-0.052	-0.030	-0.037	-0.014	0.023
Hospital ED/outpatient/urgent care	-0.013	-0.019	0.053	0.025	-0.006	0.067	0.039	0.073	0.044	-0.028
Other	-0.007	0.011	-0.001	0.001	0.018	0.006	0.008	-0.012	-0.010	0.002
None	-0.007	0.021	-0.005	-0.088	0.027	0.002	-0.081	-0.025	-0.109	-0.083
Quality of care < 8	-0.036	0.067	-0.052	-0.059	0.103	-0.016	-0.023	-0.119	-0.126	-0.008
Does not usually see same doctor	—	—	—	—	—	—	—	—	—	—
Did not get needed care in last year	—	—	—	—	—	—	—	—	—	—
Greater than median time to routine care	—	—	—	—	—	—	—	—	—	—

Notes: Data are weighted. Proxy respondents deleted from analysis.

Table 4a. Coefficients and Robust Standard Errors from Logistic Regressions of Doctor/HMO as Usual Source of Health Care on Race/Ethnicity, Insurance Type, and Control Variables: OFHS, 2003/2004

	Model 1		Model 2		Model 3		Model 4		Model 5	
Parameters	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE
Constant	1.03	0.02 ***	-0.25	0.05 ***	-0.03	0.07	-0.80	0.09 ***	-1.75	0.13 ***
Race/ethnicity (vs. non-Hispanic white)										
Non-Hispanic black	-1.10	0.05 ***	-0.91	0.05 ***	-0.90	0.06 ***	-0.85	0.06 ***	-0.82	0.06 ***
Non-Hispanic Asian	-0.60	0.12 ***	-0.68	0.12 ***	-0.76	0.12 ***	-0.73	0.12 ***	-0.61	0.13 ***
Non-Hispanic other race	-0.59	0.16 ***	-0.27	0.17	-0.41	0.17 *	-0.23	0.17	-0.19	0.18
Hispanic of all races	-1.18	0.06 ***	-0.98	0.06 ***	-0.98	0.06 ***	-0.88	0.07 ***	-0.82	0.07 ***
Insurance type (vs. none)										
Medicare, no Medicaid	—	—	1.59	0.07 ***	—	—	1.52	0.07 ***	0.88	0.10 ***
Medicaid, no Medicare	—	—	0.65	0.07 ***	—	—	0.81	0.08 ***	0.71	0.08 ***
Medicare and Medicaid	—	—	0.89	0.09 ***	—	—	0.97	0.09 ***	0.64	0.11 ***
Job-based	—	—	1.71	0.05 ***	—	—	1.46	0.06 ***	1.31	0.06 ***
Other	—	—	0.93	0.08 ***	—	—	0.79	0.09 ***	0.69	0.09 ***
Education (vs. less than high school)										
High school	—	—	—	—	0.26	0.06 ***	0.26	0.06 ***	0.30	0.06 ***
Greater than high school	—	—	—	—	0.39	0.06 ***	0.37	0.07 ***	0.42	0.07 ***
Income (vs. < 63 % of poverty line)										
63-100	—	—	—	—	0.15	0.08	0.05	0.08	-0.02	0.08
101-150	—	—	—	—	0.46	0.08 ***	0.25	0.08 **	0.20	0.08 *
151-200	—	—	—	—	0.62	0.08 ***	0.33	0.08 ***	0.26	0.09 **
201-250	—	—	—	—	0.83	0.08 ***	0.43	0.09 ***	0.39	0.09 ***
251-300	—	—	—	—	0.98	0.09 ***	0.49	0.09 ***	0.45	0.10 ***
> 300	—	—	—	—	1.10	0.07 ***	0.56	0.08 ***	0.56	0.08 ***
Age (vs. 18-24)										
25-34	—	—	—	—	—	—	—	—	0.17	0.08 *
35-44	—	—	—	—	—	—	—	—	0.45	0.08 ***
45-54	—	—	—	—	—	—	—	—	0.48	0.08 ***
55-64	—	—	—	—	—	—	—	—	0.83	0.09 ***
> 65	—	—	—	—	—	—	—	—	1.09	0.12 ***
Female	—	—	—	—	—	—	—	—	0.60	0.04 ***
Household size (no. of people)	—	—	—	—	—	—	—	—	0.03	0.02
At least one child in household	—	—	—	—	—	—	—	—	0.07	0.06
Married or cohabiting	—	—	—	—	—	—	—	—	0.17	0.05 ***
Self-rated health	—	—	—	—	—	—	—	—	0.02	0.02
No. of cases	29,000		29,000		29,000		29,000		28,863	
Model df	4		9		12		17		27	

Notes: Data are weighted and standard errors adjusted for design effects. Proxy respondents deleted from analysis. * p < .05; ** p < .01; *** p < .001, two-tailed tests.

Table 5a. Coefficients and Robust Standard Errors from Logistic Regressions of Doctor/HMO as Usual Source of Health Care on Race/Ethnicity, Insurance Type, and Control Variables: OFHS, 2008

	Model 1		Model 2		Model 3		Model 4		Model 5	
Parameters	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE
Constant	0.99	0.02 ***	-0.53	0.05 ***	-0.16	0.06 **	-1.17	0.08 ***	-2.03	0.12 ***
Race/ethnicity (vs. non-Hispanic white)										
Non-Hispanic black	-1.16	0.04 ***	-0.90	0.05 ***	-0.89	0.05 ***	-0.81	0.05 ***	-0.75	0.05 ***
Non-Hispanic Asian	-0.57	0.09 ***	-0.66	0.10 ***	-0.78	0.10 ***	-0.76	0.10 ***	-0.73	0.10 ***
Non-Hispanic other race	-0.56	0.11 ***	-0.43	0.12 ***	-0.41	0.11 ***	-0.37	0.12 **	-0.28	0.12 *
Hispanic of all races	-1.51	0.07 ***	-1.16	0.07 ***	-1.19	0.07 ***	-1.00	0.07 ***	-1.00	0.07 ***
Insurance type (vs. none)										
Medicare, no Medicaid	—	—	1.86	0.05 ***	—	—	1.80	0.06 ***	1.17	0.08 ***
Medicaid, no Medicare	—	—	0.71	0.07 ***	—	—	0.95	0.08 ***	0.82	0.08 ***
Medicare and Medicaid	—	—	1.07	0.08 ***	—	—	1.29	0.08 ***	0.96	0.09 ***
Job-based	—	—	1.98	0.05 ***	—	—	1.60	0.06 ***	1.43	0.06 ***
Other	—	—	1.26	0.08 ***	—	—	1.04	0.08 ***	0.97	0.08 ***
Education (vs. less than high school)										
High school	—	—	—	—	0.29	0.05 ***	0.34	0.05 ***	0.33	0.06 ***
Greater than high school	—	—	—	—	0.42	0.05 ***	0.46	0.06 ***	0.42	0.06 ***
Income (vs. < 63 % of poverty line)										
63-100	—	—	—	—	0.13	0.07	0.05	0.07	0.02	0.07
101-150	—	—	—	—	0.33	0.07 ***	0.15	0.07 *	0.13	0.07
151-200	—	—	—	—	0.55	0.07 ***	0.26	0.08 ***	0.22	0.08 **
201-250	—	—	—	—	0.79	0.07 ***	0.47	0.08 ***	0.45	0.08 ***
251-300	—	—	—	—	1.00	0.07 ***	0.58	0.08 ***	0.57	0.08 ***
> 300	—	—	—	—	1.29	0.06 ***	0.77	0.07 ***	0.76	0.07 ***
Age (vs. 18-24)										
25-34	—	—	—	—	—	—	—	—	0.04	0.08
35-44	—	—	—	—	—	—	—	—	0.31	0.08 ***
45-54	—	—	—	—	—	—	—	—	0.43	0.08 ***
55-64	—	—	—	—	—	—	—	—	0.63	0.08 ***
> 65	—	—	—	—	—	—	—	—	1.00	0.10 ***
Female	—	—	—	—	—	—	—	—	0.55	0.03 ***
Household size (no. of people)	—	—	—	—	—	—	—	—	0.07	0.02 ***
At least one child in household	—	—	—	—	—	—	—	—	0.02	0.06
Married or cohabiting	—	—	—	—	—	—	—	—	0.20	0.04 ***
Self-rated health	—	—	—	—	—	—	—	—	0.02	0.02
No. of cases	47,234		47,234		47,234		47,234		46,962	
Model df	4		9		12		17		27	

Notes: Data are weighted and standard errors adjusted for design effects. Proxy respondents deleted from analysis. * p < .05; ** p < .01; *** p < .001, two-tailed tests.

Table 5a supplement

	Models			
Parameters	1	2	3	4
Constant	0.99	-0.53	-0.50	-1.99
Race/ethnicity (vs. non-Hispanic white)				
Non-Hispanic black	-1.16	-0.90	-1.13	-0.94
Non-Hispanic Asian	-0.57	-0.66	-0.29	-0.42
Non-Hispanic other race	-0.56	-0.43	-0.21	-0.12
Hispanic of all races	-1.51	-1.16	-1.56	-1.35
Insurance type (vs. none)				
Medicare, no Medicaid	—	1.86	1.83	1.14
Medicaid, no Medicare	—	0.71	0.65	0.81
Medicare and Medicaid	—	1.07	1.12	1.05
Job-based	—	1.98	1.92	1.38
Other	—	1.26	1.28	0.97
Black x				
Medicare, no Medicaid	—	—	0.14	0.16
Medicaid, no Medicare	—	—	0.30	0.10
Medicare and Medicaid	—	—	-0.02	-0.11
Job-based	—	—	0.45	0.40
Other	—	—	-0.18	-0.08
Asian x				
Medicare, no Medicaid	—	—	-0.01	-0.12
Medicaid, no Medicare	—	—	0.24	0.08
Medicare and Medicaid	—	—	-0.93	-1.19
Job-based	—	—	-0.46	-0.36
Other	—	—	-0.54	-0.41
Other race x				
Medicare, no Medicaid	—	—	-0.18	-0.04
Medicaid, no Medicare	—	—	-0.16	-0.16
Medicare and Medicaid	—	—	-0.51	-0.61
Job-based	—	—	-0.30	-0.27
Other	—	—	-0.27	-0.02
Hispanic x				
Medicare, no Medicaid	—	—	0.62	0.65
Medicaid, no Medicare	—	—	0.54	0.35
Medicare and Medicaid	—	—	-0.02	-0.20
Job-based	—	—	0.55	0.48
Other	—	—	0.29	0.35
Education (vs. less than high school)				
High school	—	—	—	0.33
Greater than high school	—	—	—	0.42
Income (vs. < 63 % of poverty line)				
63-100	—	—	—	0.01
101-150	—	—	—	0.11
151-200	—	—	—	0.20
201-250	—	—	—	0.44
251-300	—	—	—	0.56
> 300	—	—	—	0.75
Age (vs. 18-24)				
25-34	—	—	—	0.04
35-44	—	—	—	0.30
45-54	—	—	—	0.43
55-64	—	—	—	0.63
> 65	—	—	—	1.00
Female	—	—	—	0.55
Household size (no. of people)	—	—	—	0.07
At least one child in household	—	—	—	0.03
Married or cohabiting	—	—	—	0.20
Self-rated health	—	—	—	0.03

Table 4b. Coefficients and Robust Standard Errors from Logistic Regressions of Clinic as Usual Source of Health Care on Race/Ethnicity, Insurance Type, and Control Variables: OFHS, 2003/2004

	Model 1		Model 2		Model 3		Model 4		Model 5	
Parameters	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE
Constant	-1.97	0.03 ***	-1.56	0.06 ***	-1.33	0.09 ***	-1.29	0.10 ***	-0.86	0.15 ***
Race/ethnicity (vs. non-Hispanic white)										
Non-Hispanic black	0.91	0.06 ***	0.76	0.06 ***	0.76	0.06 ***	0.72	0.07 ***	0.69	0.07 ***
Non-Hispanic Asian	0.75	0.14 ***	0.77	0.14 ***	0.83	0.14 ***	0.79	0.14 ***	0.76	0.14 ***
Non-Hispanic other race	0.11	0.20	-0.08	0.20	-0.02	0.20	-0.09	0.20	-0.11	0.21
Hispanic of all races	0.96	0.07 ***	0.84	0.07 ***	0.80	0.07 ***	0.76	0.07 ***	0.73	0.08 ***
Insurance type (vs. none)										
Medicare, no Medicaid	—	—	-0.57	0.08 ***	—	—	-0.51	0.08 ***	-0.11	0.12
Medicaid, no Medicare	—	—	0.18	0.08 *	—	—	0.11	0.09	0.14	0.09
Medicare and Medicaid	—	—	-0.01	0.11	—	—	-0.04	0.11	0.18	0.12
Job-based	—	—	-0.66	0.07 ***	—	—	-0.48	0.08 ***	-0.40	0.08 ***
Other	—	—	0.00	0.10	—	—	0.09	0.10	0.15	0.11
Education (vs. less than high school)										
High school	—	—	—	—	-0.18	0.07 *	-0.17	0.07 *	-0.18	0.08 *
Greater than high school	—	—	—	—	-0.22	0.08 **	-0.20	0.08 *	-0.20	0.08 *
Income (vs. < 63 % of poverty line)										
63-100	—	—	—	—	-0.05	0.09	0.02	0.09	0.06	0.09
101-150	—	—	—	—	-0.24	0.09 *	-0.06	0.10	-0.01	0.10
151-200	—	—	—	—	-0.32	0.10 **	-0.08	0.10	-0.01	0.10
201-250	—	—	—	—	-0.47	0.10 ***	-0.18	0.11	-0.11	0.11
251-300	—	—	—	—	-0.65	0.11 ***	-0.32	0.12 **	-0.25	0.12 *
> 300	—	—	—	—	-0.67	0.08 ***	-0.33	0.09 ***	-0.26	0.10 **
Age (vs. 18-24)										
25-34	—	—	—	—	—	—	—	—	-0.22	0.09 *
35-44	—	—	—	—	—	—	—	—	-0.24	0.09 **
45-54	—	—	—	—	—	—	—	—	-0.23	0.10 *
55-64	—	—	—	—	—	—	—	—	-0.36	0.10 ***
> 65	—	—	—	—	—	—	—	—	-0.67	0.14 ***
Female	—	—	—	—	—	—	—	—	-0.17	0.05 ***
Household size (no. of people)	—	—	—	—	—	—	—	—	0.02	0.03
At least one child in household	—	—	—	—	—	—	—	—	-0.05	0.08
Married or cohabiting	—	—	—	—	—	—	—	—	-0.11	0.06
Self-rated health	—	—	—	—	—	—	—	—	-0.05	0.02 *
No. of cases	29,000		29,000		29,000		29,000		28,863	
Model df	4		9		12		17		27	

Notes: Data are weighted and standard errors adjusted for design effects. Proxy respondents deleted from analysis. * p < .05; ** p < .01; *** p < .001, two-tailed tests.

Table 5b. Coefficients and Robust Standard Errors from Logistic Regressions of Clinic as Usual Source of Health Care on Race/Ethnicity, Insurance Type, and Control Variables: OFHS, 2008

	Model 1		Model 2		Model 3		Model 4		Model 5	
Parameters	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE
Constant	-2.17	0.02 ***	-1.74	0.06 ***	-1.53	0.08 ***	-1.47	0.09 ***	-0.88	0.14 ***
Race/ethnicity (vs. non-Hispanic white)										
Non-Hispanic black	0.95	0.06 ***	0.77	0.06 ***	0.74	0.06 ***	0.70	0.06 ***	0.65	0.06 ***
Non-Hispanic Asian	0.87	0.11 ***	0.91	0.12 ***	0.97	0.12 ***	0.95	0.12 ***	0.97	0.12 ***
Non-Hispanic other race	0.49	0.14 ***	0.41	0.15 **	0.37	0.15 *	0.36	0.15 *	0.32	0.15 *
Hispanic of all races	1.15	0.08 ***	0.98	0.08 ***	0.90	0.08 ***	0.87	0.08 ***	0.90	0.09 ***
Insurance type (vs. none)										
Medicare, no Medicaid	—	—	-0.39	0.07 ***	—	—	-0.31	0.07 ***	-0.03	0.10
Medicaid, no Medicare	—	—	0.17	0.09 *	—	—	0.05	0.09	0.14	0.09
Medicare and Medicaid	—	—	0.08	0.10	—	—	-0.02	0.10	0.07	0.11
Job-based	—	—	-0.73	0.06 ***	—	—	-0.46	0.07 ***	-0.35	0.07 ***
Other	—	—	-0.02	0.10	—	—	0.13	0.10	0.17	0.10
Education (vs. less than high school)										
High school	—	—	—	—	-0.16	0.07 *	-0.13	0.07	-0.11	0.07
Greater than high school	—	—	—	—	-0.15	0.07 *	-0.11	0.07	-0.06	0.07
Income (vs. < 63 % of poverty line)										
63-100	—	—	—	—	0.02	0.09	0.04	0.09	0.05	0.09
101-150	—	—	—	—	-0.16	0.08	-0.07	0.09	-0.04	0.09
151-200	—	—	—	—	-0.32	0.09 ***	-0.17	0.09	-0.12	0.09
201-250	—	—	—	—	-0.48	0.09 ***	-0.30	0.10 **	-0.26	0.10 **
251-300	—	—	—	—	-0.62	0.10 ***	-0.40	0.10 ***	-0.36	0.11 ***
> 300	—	—	—	—	-0.80	0.08 ***	-0.54	0.08 ***	-0.51	0.09 ***
Age (vs. 18-24)										
25-34	—	—	—	—	—	—	—	—	-0.11	0.10
35-44	—	—	—	—	—	—	—	—	-0.15	0.10
45-54	—	—	—	—	—	—	—	—	-0.10	0.10
55-64	—	—	—	—	—	—	—	—	-0.17	0.10
> 65	—	—	—	—	—	—	—	—	-0.48	0.12 ***
Female	—	—	—	—	—	—	—	—	-0.19	0.04 ***
Household size (no. of people)	—	—	—	—	—	—	—	—	-0.06	0.02 *
At least one child in household	—	—	—	—	—	—	—	—	-0.03	0.07
Married or cohabiting	—	—	—	—	—	—	—	—	-0.11	0.05 *
Self-rated health	—	—	—	—	—	—	—	—	-0.08	0.02 ***
No. of cases	47,234		47,234		47,234		47,234		46,962	
Model df	4		9		12		17		27	

Notes: Data are weighted and standard errors adjusted for design effects. Proxy respondents deleted from analysis. * p < .05; ** p < .01; *** p < .001, two-tailed tests.

Table 5b supplement

	Models			
Parameters	1	2	3	4
Constant	-2.17	-1.74	-1.75	-0.89
Race/ethnicity (vs. non-Hispanic white)				
Non-Hispanic black	0.95	0.77	0.86	0.74
Non-Hispanic Asian	0.87	0.91	0.61	0.74
Non-Hispanic other race	0.49	0.41	0.35	0.31
Hispanic of all races	1.15	0.98	0.96	0.88
Insurance type (vs. none)				
Medicare, no Medicaid	—	-0.39	-0.38	-0.01
Medicaid, no Medicare	—	0.17	0.15	0.08
Medicare and Medicaid	—	0.08	0.06	0.03
Job-based	—	-0.73	-0.70	-0.31
Other	—	-0.02	0.01	0.23
Black x				
Medicare, no Medicaid	—	—	0.02	-0.05
Medicaid, no Medicare	—	—	0.05	0.15
Medicare and Medicaid	—	—	0.04	0.08
Job-based	—	—	-0.29	-0.30
Other	—	—	-0.40	-0.51
Asian x				
Medicare, no Medicaid	—	—	0.08	0.08
Medicaid, no Medicare	—	—	-0.02	-0.01
Medicare and Medicaid	—	—	0.69	0.86
Job-based	—	—	0.38	0.29
Other	—	—	0.42	0.26
Other race x				
Medicare, no Medicaid	—	—	-0.11	-0.21
Medicaid, no Medicare	—	—	0.07	-0.08
Medicare and Medicaid	—	—	-0.23	-0.14
Job-based	—	—	0.23	0.17
Other	—	—	-0.10	0.02
Hispanic x				
Medicare, no Medicaid	—	—	-0.30	-0.35
Medicaid, no Medicare	—	—	-0.24	-0.15
Medicare and Medicaid	—	—	-0.21	-0.14
Job-based	—	—	0.17	0.16
Other	—	—	0.50	0.42
Education (vs. less than high school)				
High school	—	—	—	-0.11
Greater than high school	—	—	—	-0.07
Income (vs. < 63 % of poverty line)				
63-100	—	—	—	0.05
101-150	—	—	—	-0.03
151-200	—	—	—	-0.11
201-250	—	—	—	-0.26
251-300	—	—	—	-0.36
> 300	—	—	—	-0.51
Age (vs. 18-24)				
25-34	—	—	—	-0.11
35-44	—	—	—	-0.16
45-54	—	—	—	-0.10
55-64	—	—	—	-0.17
> 65	—	—	—	-0.48
Female	—	—	—	-0.19
Household size (no. of people)	—	—	—	-0.06
At least one child in household	—	—	—	-0.02
Married or cohabiting	—	—	—	-0.12
Self-rated health	—	—	—	-0.08

Table 4c. Coefficients and Robust Standard Errors from Logistic Regressions of Emergency/Outpatient/ Urgent care on Race/Ethnicity, Insurance Type, and Control Variables: OFHS, 2003/2004

	Model 1		Model 2		Model 3		Model 4		Model 5	
Parameters	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE
Constant	-2.60	0.04 ***	-1.67	0.07 ***	-1.55	0.10 ***	-1.15	0.12 ***	-0.02	0.19
Race/ethnicity (vs. non-Hispanic white)										
Non-Hispanic black	1.11	0.08 ***	0.86	0.08 ***	0.86	0.08 ***	0.79	0.08 ***	0.76	0.08 ***
Non-Hispanic Asian	-0.29	0.24	-0.17	0.25	-0.10	0.25	-0.08	0.25	-0.21	0.26
Non-Hispanic other race	1.00	0.23 ***	0.68	0.23 **	0.79	0.24 ***	0.64	0.23 **	0.55	0.24 *
Hispanic of all races	0.81	0.09 ***	0.55	0.10 ***	0.53	0.10 ***	0.43	0.10 ***	0.35	0.11 ***
Insurance type (vs. none)										
Medicare, no Medicaid	—	—	-1.02	0.10 ***	—	—	-0.92	0.10 ***	-0.32	0.15 *
Medicaid, no Medicare	—	—	-0.32	0.10 **	—	—	-0.47	0.10 ***	-0.38	0.11 ***
Medicare and Medicaid	—	—	-0.24	0.13	—	—	-0.32	0.13 *	-0.04	0.15
Job-based	—	—	-1.52	0.08 ***	—	—	-1.23	0.09 ***	-1.07	0.09 ***
Other	—	—	-0.91	0.14 ***	—	—	-0.74	0.15 ***	-0.58	0.15 ***
Education (vs. less than high school)										
High school	—	—	—	—	-0.20	0.09 *	-0.16	0.09	-0.16	0.09
Greater than high school	—	—	—	—	-0.54	0.10 ***	-0.44	0.10 ***	-0.41	0.10 ***
Income (vs. < 63 % of poverty line)										
63-100	—	—	—	—	-0.13	0.11	-0.08	0.11	-0.02	0.11
101-150	—	—	—	—	-0.48	0.11 ***	-0.32	0.12 **	-0.27	0.12 *
151-200	—	—	—	—	-0.59	0.12 ***	-0.33	0.12 **	-0.26	0.13 *
201-250	—	—	—	—	-0.92	0.14 ***	-0.55	0.15 ***	-0.50	0.15 **
251-300	—	—	—	—	-1.01	0.15 ***	-0.53	0.15 ***	-0.46	0.16 **
> 300	—	—	—	—	-1.12	0.11 ***	-0.57	0.12 ***	-0.54	0.13 ***
Age (vs. 18-24)										
25-34	—	—	—	—	—	—	—	—	-0.10	0.12
35-44	—	—	—	—	—	—	—	—	-0.32	0.12 **
45-54	—	—	—	—	—	—	—	—	-0.37	0.12 **
55-64	—	—	—	—	—	—	—	—	-0.80	0.14 ***
> 65	—	—	—	—	—	—	—	—	-0.94	0.18 ***
Female	—	—	—	—	—	—	—	—	-0.60	0.07 ***
Household size (no. of people)	—	—	—	—	—	—	—	—	-0.02	0.03
At least one child in household	—	—	—	—	—	—	—	—	0.05	0.10
Married or cohabiting	—	—	—	—	—	—	—	—	0.01	0.08
Self-rated health	—	—	—	—	—	—	—	—	-0.18	0.03 ***
No. of cases	29,000		29,000		29,000		29,000		28,863	
Model df	4		9		12		17		27	

Notes: Data are weighted and standard errors adjusted for design effects. Proxy respondents deleted from analysis. * p < .05; ** p < .01; *** p < .001, two-tailed tests.

Table 5c. Coefficients and Robust Standard Errors from Logistic Regressions of Emergency/Outpatient/ Urgent care on Race/Ethnicity, Insurance Type, and Control Variables: OFHS, 2008

	Model 1		Model 2		Model 3		Model 4		Model 5	
Parameters	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE
Constant	-2.43	0.03 ***	-1.41	0.06 ***	-1.25	0.08 ***	-0.79	0.10 ***	0.17	0.16
Race/ethnicity (vs. non-Hispanic white)										
Non-Hispanic black	1.10	0.06 ***	0.75	0.07 ***	0.79	0.07 ***	0.68	0.07 ***	0.63	0.07 ***
Non-Hispanic Asian	0.04	0.17	0.11	0.17	0.31	0.17	0.27	0.17	0.26	0.18
Non-Hispanic other race	0.50	0.17 **	0.32	0.18	0.32	0.18	0.26	0.18	0.25	0.18
Hispanic of all races	0.52	0.11 ***	0.08	0.11	0.05	0.11	-0.17	0.12	-0.22	0.12
Insurance type (vs. none)										
Medicare, no Medicaid	—	—	-1.23	0.08 ***	—	—	-1.18	0.08 ***	-0.56	0.11 ***
Medicaid, no Medicare	—	—	-0.09	0.09	—	—	-0.28	0.09 **	-0.23	0.10 *
Medicare and Medicaid	—	—	-0.27	0.10 **	—	—	-0.47	0.11 ***	-0.19	0.12
Job-based	—	—	-1.52	0.07 ***	—	—	-1.09	0.08 ***	-0.93	0.08 ***
Other	—	—	-1.03	0.12 ***	—	—	-0.79	0.12 ***	-0.66	0.12 ***
Education (vs. less than high school)										
High school	—	—	—	—	-0.35	0.07 ***	-0.35	0.07 ***	-0.32	0.07 ***
Greater than high school	—	—	—	—	-0.73	0.08 ***	-0.72	0.08 ***	-0.66	0.08 ***
Income (vs. < 63 % of poverty line)										
63-100	—	—	—	—	-0.19	0.09 *	-0.12	0.09	-0.08	0.10
101-150	—	—	—	—	-0.22	0.09 *	-0.01	0.09	0.03	0.10
151-200	—	—	—	—	-0.50	0.10 ***	-0.19	0.11	-0.13	0.11
201-250	—	—	—	—	-0.83	0.11 ***	-0.47	0.12 ***	-0.44	0.12 ***
251-300	—	—	—	—	-1.00	0.12 ***	-0.55	0.13 ***	-0.49	0.13 ***
> 300	—	—	—	—	-1.17	0.09 ***	-0.63	0.10 ***	-0.55	0.10 ***
Age (vs. 18-24)										
25-34	—	—	—	—	—	—	—	—	0.01	0.11
35-44	—	—	—	—	—	—	—	—	-0.28	0.11 **
45-54	—	—	—	—	—	—	—	—	-0.35	0.11 **
55-64	—	—	—	—	—	—	—	—	-0.67	0.11 ***
> 65	—	—	—	—	—	—	—	—	-0.93	0.14 ***
Female	—	—	—	—	—	—	—	—	-0.51	0.05 ***
Household size (no. of people)	—	—	—	—	—	—	—	—	-0.07	0.03 *
At least one child in household	—	—	—	—	—	—	—	—	0.17	0.08 *
Married or cohabiting	—	—	—	—	—	—	—	—	-0.12	0.06
Self-rated health	—	—	—	—	—	—	—	—	-0.14	0.03 ***
No. of cases	47,234		47,234		47,234		47,234		46,962	
Model df	4		9		12		17		27	

Notes: Data are weighted and standard errors adjusted for design effects. Proxy respondents deleted from analysis. * p < .05; ** p < .01; *** p < .001, two-tailed tests.

Table 5c supplement

	Models			
Parameters	1	2	3	4
Constant	-2.43	-1.41	-1.36	0.25
Race/ethnicity (vs. non-Hispanic white)				
Non-Hispanic black	1.10	0.75	0.67	0.52
Non-Hispanic Asian	0.04	0.11	-0.55	-0.39
Non-Hispanic other race	0.50	0.32	0.02	-0.08
Hispanic of all races	0.52	0.08	-0.26	-0.65
Insurance type (vs. none)				
Medicare, no Medicaid	—	-1.23	-1.32	-0.65
Medicaid, no Medicare	—	-0.09	0.00	-0.23
Medicare and Medicaid	—	-0.27	-0.38	-0.35
Job-based	—	-1.52	-1.62	-1.05
Other	—	-1.03	-1.08	-0.70
Black x				
Medicare, no Medicaid	—	—	0.35	0.31
Medicaid, no Medicare	—	—	-0.40	-0.18
Medicare and Medicaid	—	—	0.12	0.17
Job-based	—	—	0.30	0.34
Other	—	—	0.33	0.15
Asian x				
Medicare, no Medicaid	—	—	-0.05	0.13
Medicaid, no Medicare	—	—	0.58	0.91
Medicare and Medicaid	—	—	1.16	1.42
Job-based	—	—	1.08	0.97
Other	—	—	0.29	0.23
Other race x				
Medicare, no Medicaid	—	—	0.21	0.00
Medicaid, no Medicare	—	—	0.32	0.52
Medicare and Medicaid	—	—	0.91	1.12
Job-based	—	—	0.57	0.61
Other	—	—	-0.59	-0.44
Hispanic x				
Medicare, no Medicaid	—	—	0.59	0.65
Medicaid, no Medicare	—	—	0.68	1.04
Medicare and Medicaid	—	—	1.27	1.57
Job-based	—	—	0.67	0.81
Other	—	—	-1.39	-1.39
Education (vs. less than high school)				
High school	—	—	—	-0.32
Greater than high school	—	—	—	-0.67
Income (vs. < 63 % of poverty line)				
63-100	—	—	—	-0.09
101-150	—	—	—	0.00
151-200	—	—	—	-0.16
201-250	—	—	—	-0.47
251-300	—	—	—	-0.51
> 300	—	—	—	-0.56
Age (vs. 18-24)				
25-34	—	—	—	0.01
35-44	—	—	—	-0.27
45-54	—	—	—	-0.35
55-64	—	—	—	-0.67
> 65	—	—	—	-0.92
Female	—	—	—	-0.50
Household size (no. of people)	—	—	—	-0.07
At least one child in household	—	—	—	0.17
Married or cohabiting	—	—	—	-0.11
Self-rated health	—	—	—	-0.14

Table 4d. Coefficients and Robust Standard Errors from Logistic Regressions of No Usual Source of Health Care on Race/Ethnicity, Insurance Type, and Control Variables: OFHS, 2003/2004

	Model 1		Model 2		Model 3		Model 4		Model 5	
Parameters	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE
Constant	-2.74	0.04 ***	-1.39	0.06 ***	-2.28	0.13 ***	-1.25	0.14 ***	-1.10	0.24 ***
Race/ethnicity (vs. non-Hispanic white)										
Non-Hispanic black	0.08	0.11	-0.15	0.11	-0.06	0.11	-0.18	0.12	-0.24	0.12 *
Non-Hispanic Asian	0.50	0.18 **	0.47	0.19 *	0.60	0.18 **	0.50	0.19 **	0.28	0.21
Non-Hispanic other race	0.22	0.32	-0.11	0.33	0.11	0.32	-0.12	0.33	-0.09	0.34
Hispanic of all races	0.71	0.11 ***	0.35	0.11 **	0.58	0.11 ***	0.30	0.11 **	0.30	0.12 **
Insurance type (vs. none)										
Medicare, no Medicaid	—	—	-2.05	0.12 ***	—	—	-2.02	0.12 ***	-1.60	0.18 ***
Medicaid, no Medicare	—	—	-1.45	0.13 ***	—	—	-1.51	0.14 ***	-1.31	0.14 ***
Medicare and Medicaid	—	—	-2.24	0.21 ***	—	—	-2.27	0.22 ***	-2.07	0.24 ***
Job-based	—	—	-1.66	0.08 ***	—	—	-1.54	0.10 ***	-1.35	0.10 ***
Other	—	—	-1.19	0.14 ***	—	—	-1.12	0.14 ***	-1.08	0.15 ***
Education (vs. less than high school)										
High school	—	—	—	—	-0.04	0.11	-0.08	0.11	-0.17	0.12
Greater than high school	—	—	—	—	-0.14	0.11	-0.16	0.12	-0.33	0.12 **
Income (vs. < 63 % of poverty line)										
63-100	—	—	—	—	-0.03	0.15	0.09	0.15	0.18	0.15
101-150	—	—	—	—	-0.06	0.14	0.05	0.15	0.09	0.15
151-200	—	—	—	—	-0.36	0.15 *	-0.20	0.16	-0.22	0.16
201-250	—	—	—	—	-0.33	0.15 *	-0.04	0.16	-0.07	0.17
251-300	—	—	—	—	-0.37	0.16 *	0.02	0.17	-0.05	0.18
> 300	—	—	—	—	-0.64	0.13 ***	-0.19	0.15	-0.32	0.15 *
Age (vs. 18-24)										
25-34	—	—	—	—	—	—	—	—	0.12	0.13
35-44	—	—	—	—	—	—	—	—	-0.28	0.13 *
45-54	—	—	—	—	—	—	—	—	-0.36	0.14 **
55-64	—	—	—	—	—	—	—	—	-0.74	0.17 ***
> 65	—	—	—	—	—	—	—	—	-0.59	0.21 **
Female	—	—	—	—	—	—	—	—	-0.67	0.07 ***
Household size (no. of people)	—	—	—	—	—	—	—	—	-0.12	0.04 **
At least one child in household	—	—	—	—	—	—	—	—	-0.04	0.11
Married or cohabiting	—	—	—	—	—	—	—	—	-0.36	0.09 ***
Self-rated health	—	—	—	—	—	—	—	—	0.27	0.04 ***
No. of cases	29,000		29,000		29,000		29,000		28,863	
Model df	4		9		12		17		27	

Notes: Data are weighted and standard errors adjusted for design effects. Proxy respondents deleted from analysis. * p < .05; ** p < .01; *** p < .001, two-tailed tests.

Table 5d. Coefficients and Robust Standard Errors from Logistic Regressions of No Usual Source of Health Care on Race/Ethnicity, Insurance Type, and Control Variables: OFHS, 2008

	Model 1		Model 2		Model 3		Model 4		Model 5	
Parameters	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE
Constant	-2.49	0.03 ***	-1.10	0.05 ***	-2.06	0.10 ***	-1.03	0.12 ***	-1.10	0.18 ***
Race/ethnicity (vs. non-Hispanic white)										
Non-Hispanic black	0.15	0.09	-0.17	0.09	-0.05	0.09	-0.21	0.10 *	-0.31	0.10 **
Non-Hispanic Asian	0.19	0.16	0.17	0.17	0.29	0.17	0.20	0.17	0.12	0.17
Non-Hispanic other race	0.24	0.18	0.06	0.19	0.14	0.18	0.04	0.19	0.00	0.19
Hispanic of all races	1.23	0.09 ***	0.72	0.10 ***	1.05	0.09 ***	0.68	0.10 ***	0.70	0.10 ***
Insurance type (vs. none)										
Medicare, no Medicaid	—	—	-2.35	0.09 ***	—	—	-2.30	0.10 ***	-1.71	0.18 ***
Medicaid, no Medicare	—	—	-1.29	0.12 ***	—	—	-1.32	0.12 ***	-1.19	0.13 ***
Medicare and Medicaid	—	—	-2.18	0.17 ***	—	—	-2.20	0.17 ***	-1.85	0.18 ***
Job-based	—	—	-1.69	0.07 ***	—	—	-1.51	0.08 ***	-1.37	0.08 ***
Other	—	—	-1.43	0.13 ***	—	—	-1.33	0.13 ***	-1.30	0.13 ***
Education (vs. less than high school)										
High school	—	—	—	—	0.06	0.09	-0.01	0.09	-0.07	0.09
Greater than high school	—	—	—	—	0.07	0.09	0.00	0.10	-0.07	0.10
Income (vs. < 63 % of poverty line)										
63-100	—	—	—	—	-0.08	0.11	0.01	0.12	0.05	0.12
101-150	—	—	—	—	-0.19	0.11	-0.07	0.12	-0.06	0.12
151-200	—	—	—	—	-0.21	0.12	0.04	0.13	0.04	0.13
201-250	—	—	—	—	-0.22	0.12	0.07	0.12	0.02	0.13
251-300	—	—	—	—	-0.48	0.12 ***	-0.07	0.14	-0.15	0.14
> 300	—	—	—	—	-0.90	0.10 ***	-0.40	0.12 ***	-0.48	0.12 ***
Age (vs. 18-24)										
25-34	—	—	—	—	—	—	—	—	0.05	0.11
35-44	—	—	—	—	—	—	—	—	-0.09	0.11
45-54	—	—	—	—	—	—	—	—	-0.39	0.11 ***
55-64	—	—	—	—	—	—	—	—	-0.60	0.12 ***
> 65	—	—	—	—	—	—	—	—	-0.76	0.20 ***
Female	—	—	—	—	—	—	—	—	-0.42	0.06 ***
Household size (no. of people)	—	—	—	—	—	—	—	—	-0.03	0.03
At least one child in household	—	—	—	—	—	—	—	—	-0.09	0.09
Married or cohabiting	—	—	—	—	—	—	—	—	-0.27	0.07 ***
Self-rated health	—	—	—	—	—	—	—	—	0.21	0.03 ***
No. of cases	47,234		47,234		47,234		47,234		46,962	
Model df	4		9		12		17		27	

Notes: Data are weighted and standard errors adjusted for design effects. Proxy respondents deleted from analysis. * p < .05; ** p < .01; *** p < .001, two-tailed tests.

Table 5d supplement

	Models			
Parameters	1	2	3	4
Constant	-2.49	-1.10	-1.07	-1.08
Race/ethnicity (vs. non-Hispanic white)				
Non-Hispanic black	0.15	-0.17	-0.32	-0.48
Non-Hispanic Asian	0.19	0.17	0.30	0.24
Non-Hispanic other race	0.24	0.06	0.04	0.07
Hispanic of all races	1.23	0.72	0.69	0.71
Insurance type (vs. none)				
Medicare, no Medicaid	—	-2.35	-2.36	-1.71
Medicaid, no Medicare	—	-1.29	-1.25	-1.16
Medicare and Medicaid	—	-2.18	-2.15	-1.81
Job-based	—	-1.69	-1.73	-1.41
Other	—	-1.43	-1.57	-1.43
Black x				
Medicare, no Medicaid	—	—	-0.35	-0.28
Medicaid, no Medicare	—	—	0.03	0.09
Medicare and Medicaid	—	—	-0.07	-0.07
Job-based	—	—	0.37	0.43
Other	—	—	1.06	1.05
Asian x				
Medicare, no Medicaid	—	—	-0.17	-0.07
Medicaid, no Medicare	—	—	0.00	0.00
Medicare and Medicaid	—	—	0.00	0.00
Job-based	—	—	-0.16	-0.14
Other	—	—	0.08	0.10
Other race x				
Medicare, no Medicaid	—	—	0.27	0.22
Medicaid, no Medicare	—	—	-0.57	-0.64
Medicare and Medicaid	—	—	-0.32	-0.50
Job-based	—	—	0.11	-0.08
Other	—	—	0.04	-0.34
Hispanic x				
Medicare, no Medicaid	—	—	0.60	0.48
Medicaid, no Medicare	—	—	-0.28	-0.37
Medicare and Medicaid	—	—	0.25	0.12
Job-based	—	—	-0.01	-0.11
Other	—	—	0.20	0.10
Education (vs. less than high school)				
High school	—	—	—	-0.07
Greater than high school	—	—	—	-0.07
Income (vs. < 63 % of poverty line)				
63-100	—	—	—	0.05
101-150	—	—	—	-0.07
151-200	—	—	—	0.04
201-250	—	—	—	0.02
251-300	—	—	—	-0.15
> 300	—	—	—	-0.48
Age (vs. 18-24)				
25-34	—	—	—	0.05
35-44	—	—	—	-0.09
45-54	—	—	—	-0.39
55-64	—	—	—	-0.60
> 65	—	—	—	-0.77
Female	—	—	—	-0.42
Household size (no. of people)	—	—	—	-0.03
At least one child in household	—	—	—	-0.09
Married or cohabiting	—	—	—	-0.27
Self-rated health	—	—	—	0.21

Table 6. Coefficients and Robust Standard Errors from Logistic Regressions of Dissatisfaction with Health Care Quality on Race/Ethnicity, Insurance Type, and Control Variables: OFHS, 2003/2004

	Model 1		Model 2		Model 3		Model 4		Model 5	
Parameters	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE
Constant	-1.40	0.02 ***	-0.41	0.06 ***	-1.21	0.09 ***	-0.37	0.11 ***	1.29	0.15 ***
Race/ethnicity (vs. non-Hispanic white)										
Non-Hispanic black	0.49	0.06 ***	0.39	0.07 ***	0.40	0.07 ***	0.35	0.07 ***	0.24	0.07 ***
Non-Hispanic Asian	0.84	0.15 ***	0.82	0.15 ***	0.98	0.15 ***	0.91	0.15 ***	0.84	0.16 ***
Non-Hispanic other race	0.38	0.19 *	0.25	0.19	0.30	0.18	0.24	0.19	0.05	0.20
Hispanic of all races	0.21	0.08 **	0.04	0.08	0.13	0.08	-0.02	0.08	-0.11	0.09
Insurance type (vs. none)										
Medicare, no Medicaid	—	—	-1.46	0.08 ***	—	—	-1.42	0.08 ***	-0.58	0.12 ***
Medicaid, no Medicare	—	—	-0.89	0.09 ***	—	—	-0.92	0.09 ***	-0.90	0.09 ***
Medicare and Medicaid	—	—	-1.36	0.12 ***	—	—	-1.37	0.12 ***	-1.04	0.13 ***
Job-based	—	—	-1.05	0.07 ***	—	—	-0.79	0.07 ***	-0.56	0.07 ***
Other	—	—	-0.73	0.10 ***	—	—	-0.60	0.10 ***	-0.31	0.11 **
Education (vs. less than high school)										
High school	—	—	—	—	0.08	0.08	-0.01	0.08	0.07	0.08
Greater than high school	—	—	—	—	0.02	0.08	-0.08	0.08	0.05	0.08
Income (vs. < 63 % of poverty line)										
63-100	—	—	—	—	-0.04	0.10	0.04	0.10	0.13	0.10
101-150	—	—	—	—	0.12	0.09	0.22	0.10 *	0.36	0.10 ***
151-200	—	—	—	—	0.12	0.09	0.21	0.10 *	0.42	0.10 ***
201-250	—	—	—	—	-0.19	0.10	-0.08	0.11	0.16	0.11
251-300	—	—	—	—	-0.38	0.10 ***	-0.26	0.11 *	-0.02	0.11
> 300	—	—	—	—	-0.48	0.08 ***	-0.40	0.09 ***	-0.11	0.10
Age (vs. 18-24)										
25-34	—	—	—	—	—	—	—	—	-0.12	0.09
35-44	—	—	—	—	—	—	—	—	-0.27	0.09 **
45-54	—	—	—	—	—	—	—	—	-0.64	0.09 ***
55-64	—	—	—	—	—	—	—	—	-1.05	0.10 ***
> 65	—	—	—	—	—	—	—	—	-1.44	0.13 ***
Female	—	—	—	—	—	—	—	—	-0.35	0.05 ***
Household size (no. of people)	—	—	—	—	—	—	—	—	-0.01	0.03
At least one child in household	—	—	—	—	—	—	—	—	-0.04	0.07
Married or cohabiting	—	—	—	—	—	—	—	—	-0.16	0.05 **
Self-rated health	—	—	—	—	—	—	—	—	-0.40	0.02 ***
No. of cases	25,084		25,084		25,084		25,084		24,972	
Model df	4		9		12		17		27	

Notes: Data are weighted and standard errors adjusted for design effects. Proxy respondents deleted from analysis. * p < .05; ** p < .01; *** p < .001, two-tailed tests.

Table 7. Coefficients and Robust Standard Errors from Logistic Regressions of Dissatisfaction with Health Care Quality on Race/Ethnicity, Insurance Type, and Control Variables: OFHS, 2008

	Model 1		Model 2		Model 3		Model 4		Model 5	
Parameters	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE
Constant	-1.25	0.02 ***	-0.07	0.05	-0.78	0.07 ***	0.07	0.09	1.81	0.13 ***
Race/ethnicity (vs. non-Hispanic white)										
Non-Hispanic black	0.62	0.05 ***	0.41	0.05 ***	0.43	0.05 ***	0.33	0.05 ***	0.28	0.06 ***
Non-Hispanic Asian	0.51	0.11 ***	0.52	0.11 ***	0.64	0.11 ***	0.61	0.11 ***	0.59	0.11 ***
Non-Hispanic other race	0.60	0.12 ***	0.48	0.12 ***	0.51	0.12 ***	0.45	0.12 ***	0.37	0.13 **
Hispanic of all races	0.49	0.08 ***	0.14	0.09	0.31	0.08 ***	0.06	0.09	-0.02	0.09
Insurance type (vs. none)										
Medicare, no Medicaid	—	—	-1.75	0.06 ***	—	—	-1.67	0.06 ***	-0.96	0.09 ***
Medicaid, no Medicare	—	—	-0.62	0.08 ***	—	—	-0.73	0.08 ***	-0.76	0.09 ***
Medicare and Medicaid	—	—	-1.14	0.09 ***	—	—	-1.23	0.09 ***	-1.05	0.11 ***
Job-based	—	—	-1.31	0.05 ***	—	—	-0.98	0.06 ***	-0.78	0.06 ***
Other	—	—	-1.05	0.08 ***	—	—	-0.87	0.09 ***	-0.68	0.09 ***
Education (vs. less than high school)										
High school	—	—	—	—	0.14	0.06 *	0.06	0.06	0.14	0.07 *
Greater than high school	—	—	—	—	0.08	0.06	-0.04	0.06	0.08	0.07
Income (vs. < 63 % of poverty line)										
63-100	—	—	—	—	-0.09	0.08	0.00	0.08	0.06	0.08
101-150	—	—	—	—	-0.09	0.07	0.08	0.08	0.17	0.08 *
151-200	—	—	—	—	-0.28	0.08 ***	-0.05	0.08	0.07	0.09
201-250	—	—	—	—	-0.44	0.08 ***	-0.21	0.09 *	-0.06	0.09
251-300	—	—	—	—	-0.53	0.08 ***	-0.27	0.09 **	-0.10	0.09
> 300	—	—	—	—	-0.93	0.07 ***	-0.66	0.08 ***	-0.42	0.08 ***
Age (vs. 18-24)										
25-34	—	—	—	—	—	—	—	—	-0.04	0.08
35-44	—	—	—	—	—	—	—	—	-0.31	0.08 ***
45-54	—	—	—	—	—	—	—	—	-0.62	0.08 ***
55-64	—	—	—	—	—	—	—	—	-1.06	0.09 ***
> 65	—	—	—	—	—	—	—	—	-1.43	0.11 ***
Female	—	—	—	—	—	—	—	—	-0.29	0.04 ***
Household size (no. of people)	—	—	—	—	—	—	—	—	-0.04	0.02 *
At least one child in household	—	—	—	—	—	—	—	—	-0.05	0.06
Married or cohabiting	—	—	—	—	—	—	—	—	0.02	0.05
Self-rated health	—	—	—	—	—	—	—	—	-0.41	0.02 ***
No. of cases	44,843		44,843		44,843		44,843		46,962	
Model df	4		9		12		17		27	

Notes: Data are weighted and standard errors adjusted for design effects. Proxy respondents deleted from analysis. * p < .05; ** p < .01; *** p < .001, two-tailed tests.

Table 8. Coefficients and Robust Standard Errors from Logistic Regressions of Does Not Usually See Same Doctor on Race/Ethnicity, Insurance Type, and Control Variables: OFHS, 2008

	Model 1		Model 2		Model 3		Model 4		Model 5	
Parameters	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE
Constant	-2.42	0.03 ***	-1.04	0.06 ***	-1.71	0.10 ***	-0.71	0.11 ***	0.05	0.18
Race/ethnicity (vs. non-Hispanic white)										
Non-Hispanic black	0.87	0.07 ***	0.57	0.07 ***	0.63	0.07 ***	0.51	0.07 ***	0.47	0.08 ***
Non-Hispanic Asian	0.38	0.15 *	0.38	0.16 *	0.53	0.15 ***	0.46	0.16 **	0.38	0.16 *
Non-Hispanic other race	0.22	0.19	0.01	0.20	0.10	0.19	-0.03	0.21	-0.02	0.21
Hispanic of all races	0.40	0.12 ***	-0.07	0.13	0.16	0.13	-0.20	0.13	-0.30	0.14 *
Insurance type (vs. none)										
Medicare, no Medicaid	—	—	-2.22	0.09 ***	—	—	-2.17	0.09 ***	-1.21	0.13 ***
Medicaid, no Medicare	—	—	-0.84	0.10 ***	—	—	-0.99	0.11 ***	-0.96	0.11 ***
Medicare and Medicaid	—	—	-1.51	0.14 ***	—	—	-1.65	0.14 ***	-1.27	0.15 ***
Job-based	—	—	-1.66	0.07 ***	—	—	-1.39	0.08 ***	-1.25	0.08 ***
Other	—	—	-1.24	0.12 ***	—	—	-1.08	0.12 ***	-0.93	0.12 ***
Education (vs. less than high school)										
High school	—	—	—	—	0.00	0.08	-0.11	0.08	-0.14	0.09
Greater than high school	—	—	—	—	-0.21	0.08 *	-0.32	0.09 ***	-0.35	0.09 ***
Income (vs. < 63 % of poverty line)										
63-100	—	—	—	—	-0.08	0.11	0.06	0.11	0.13	0.11
101-150	—	—	—	—	-0.28	0.10 **	-0.10	0.11	-0.07	0.11
151-200	—	—	—	—	-0.48	0.11 ***	-0.19	0.12	-0.16	0.12
201-250	—	—	—	—	-0.63	0.12 ***	-0.30	0.12 *	-0.27	0.13 *
251-300	—	—	—	—	-0.78	0.12 ***	-0.37	0.13 **	-0.35	0.13 **
> 300	—	—	—	—	-0.91	0.09 ***	-0.45	0.10 ***	-0.40	0.11 ***
Age (vs. 18-24)										
25-34	—	—	—	—	—	—	—	—	0.08	0.11
35-44	—	—	—	—	—	—	—	—	-0.23	0.11 *
45-54	—	—	—	—	—	—	—	—	-0.49	0.11 ***
55-64	—	—	—	—	—	—	—	—	-1.10	0.12 ***
> 65	—	—	—	—	—	—	—	—	-1.38	0.16 ***
Female	—	—	—	—	—	—	—	—	-0.51	0.06 ***
Household size (no. of people)	—	—	—	—	—	—	—	—	-0.09	0.03 **
At least one child in household	—	—	—	—	—	—	—	—	0.21	0.08 *
Married or cohabiting	—	—	—	—	—	—	—	—	-0.04	0.07
Self-rated health	—	—	—	—	—	—	—	—	-0.03	0.03
No. of cases	41,492		41,492		41,492		41,492		24,972	
Model df	4		9		12		17		27	

Notes: Data are weighted and standard errors adjusted for design effects. Proxy respondents deleted from analysis. * p < .05; ** p < .01; *** p < .001, two-tailed tests.

Table 9. Coefficients and Robust Standard Errors from Logistic Regressions of Not Getting Needed Care on Race/Ethnicity, Insurance Type, and Control Variables: OFHS, 2008

	Model 1		Model 2		Model 3		Model 4		Model 5	
Parameters	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE
Constant	-1.83	0.02 ***	-0.33	0.04 ***	-1.42	0.08 ***	-0.33	0.09 ***	0.81	0.15 ***
Race/ethnicity (vs. non-Hispanic white)										
Non-Hispanic black	0.28	0.06 ***	-0.06	0.06	-0.03	0.06	-0.18	0.06 **	-0.26	0.07 ***
Non-Hispanic Asian	-0.71	0.18 ***	-0.79	0.19 ***	-0.66	0.18 ***	-0.79	0.20 ***	-0.80	0.20 ***
Non-Hispanic other race	0.62	0.13 ***	0.46	0.14 ***	0.49	0.13 ***	0.42	0.14 **	0.35	0.16 *
Hispanic of all races	0.09	0.09	-0.56	0.11 ***	-0.16	0.10	-0.63	0.11 ***	-0.71	0.12 ***
Insurance type (vs. none)										
Medicare, no Medicaid	—	—	-2.16	0.07 ***	—	—	-2.03	0.07 ***	-1.20	0.10 ***
Medicaid, no Medicare	—	—	-1.32	0.09 ***	—	—	-1.46	0.09 ***	-1.77	0.10 ***
Medicare and Medicaid	—	—	-1.65	0.11 ***	—	—	-1.71	0.11 ***	-1.84	0.13 ***
Job-based	—	—	-1.89	0.05 ***	—	—	-1.51	0.06 ***	-1.56	0.07 ***
Other	—	—	-1.39	0.09 ***	—	—	-1.21	0.09 ***	-1.12	0.09 ***
Education (vs. less than high school)										
High school	—	—	—	—	0.27	0.07 ***	0.22	0.07 **	0.28	0.08 ***
Greater than high school	—	—	—	—	0.52	0.07 ***	0.49	0.07 ***	0.62	0.08 ***
Income (vs. < 63 % of poverty line)										
63-100	—	—	—	—	-0.09	0.08	-0.02	0.09	-0.03	0.09
101-150	—	—	—	—	-0.07	0.08	0.02	0.08	0.12	0.09
151-200	—	—	—	—	-0.35	0.08 ***	-0.16	0.09	-0.05	0.09
201-250	—	—	—	—	-0.47	0.08 ***	-0.25	0.09 **	-0.05	0.10
251-300	—	—	—	—	-0.80	0.09 ***	-0.49	0.10 ***	-0.25	0.10 *
> 300	—	—	—	—	-1.53	0.07 ***	-1.14	0.08 ***	-0.86	0.09 ***
Age (vs. 18-24)										
25-34	—	—	—	—	—	—	—	—	0.21	0.10 *
35-44	—	—	—	—	—	—	—	—	0.31	0.10 **
45-54	—	—	—	—	—	—	—	—	0.32	0.10 ***
55-64	—	—	—	—	—	—	—	—	-0.26	0.10 *
> 65	—	—	—	—	—	—	—	—	-1.69	0.14 ***
Female	—	—	—	—	—	—	—	—	0.59	0.05 ***
Household size (no. of people)	—	—	—	—	—	—	—	—	-0.03	0.02
At least one child in household	—	—	—	—	—	—	—	—	-0.04	0.07
Married or cohabiting	—	—	—	—	—	—	—	—	0.02	0.05
Self-rated health	—	—	—	—	—	—	—	—	-0.50	0.02 ***
No. of cases	48,103		48,103		48,103		48,103		47,720	
Model df	4		9		12		17		27	

Notes: Data are weighted and standard errors adjusted for design effects. Proxy respondents deleted from analysis. * p < .05; ** p < .01; *** p < .001, two-tailed tests.

Table 10. Coefficients and Robust Standard Errors from Logistic Regressions of Greater than Median Time to Routine Care on Race/Ethnicity, Insurance Type, and Control Variables: OFHS, 2008

	Model 1		Model 2		Model 3		Model 4		Model 5	
Parameters	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE
Constant	-0.54	0.02 ***	-0.40	0.05 ***	0.02	0.06	-0.02	0.08	0.29	0.12 *
Race/ethnicity (vs. non-Hispanic white)										
Non-Hispanic black	0.30	0.05 ***	0.22	0.05 ***	0.17	0.05 ***	0.17	0.05 ***	0.15	0.05 **
Non-Hispanic Asian	0.09	0.10	0.14	0.10	0.15	0.10	0.16	0.10	0.19	0.10
Non-Hispanic other race	0.25	0.11 *	0.21	0.11	0.18	0.11	0.18	0.11	0.18	0.12
Hispanic of all races	0.13	0.07	0.08	0.08	-0.02	0.08	0.00	0.08	0.02	0.08
Insurance type (vs. none)										
Medicare, no Medicaid	—	—	0.02	0.05	—	—	0.08	0.06	0.05	0.08
Medicaid, no Medicare	—	—	0.10	0.08	—	—	-0.04	0.08	0.01	0.08
Medicare and Medicaid	—	—	0.42	0.08 ***	—	—	0.31	0.08 ***	0.23	0.09 *
Job-based	—	—	-0.28	0.05 ***	—	—	-0.11	0.06 *	-0.10	0.06
Other	—	—	-0.18	0.08 *	—	—	-0.08	0.08	-0.05	0.08
Education (vs. less than high school)										
High school	—	—	—	—	-0.18	0.05 ***	-0.14	0.05 **	-0.10	0.05
Greater than high school	—	—	—	—	-0.24	0.05 ***	-0.18	0.05 ***	-0.10	0.05
Income (vs. < 63 % of poverty line)										
63-100	—	—	—	—	-0.07	0.07	-0.10	0.07	-0.11	0.07
101-150	—	—	—	—	-0.26	0.07 ***	-0.26	0.07 ***	-0.25	0.07 ***
151-200	—	—	—	—	-0.29	0.07 ***	-0.28	0.07 ***	-0.26	0.07 ***
201-250	—	—	—	—	-0.44	0.07 ***	-0.41	0.07 ***	-0.41	0.07 ***
251-300	—	—	—	—	-0.41	0.07 ***	-0.37	0.08 ***	-0.36	0.08 ***
> 300	—	—	—	—	-0.48	0.06 ***	-0.42	0.06 ***	-0.42	0.07 ***
Age (vs. 18-24)										
25-34	—	—	—	—	—	—	—	—	0.16	0.08 *
35-44	—	—	—	—	—	—	—	—	0.22	0.08 **
45-54	—	—	—	—	—	—	—	—	0.22	0.08 **
55-64	—	—	—	—	—	—	—	—	0.21	0.08 **
> 65	—	—	—	—	—	—	—	—	0.05	0.09
Female	—	—	—	—	—	—	—	—	0.04	0.03
Household size (no. of people)	—	—	—	—	—	—	—	—	-0.02	0.02
At least one child in household	—	—	—	—	—	—	—	—	-0.18	0.05 ***
Married or cohabiting	—	—	—	—	—	—	—	—	0.06	0.04
Self-rated health	—	—	—	—	—	—	—	—	-0.13	0.02 ***
No. of cases	44,780		44,780		44,780		44,780		44,530	
Model df	4		9		12		17		27	

Notes: Data are weighted and standard errors adjusted for design effects. Proxy respondents deleted from analysis. * p < .05; ** p < .01; *** p < .001, two-tailed tests.

Table 11a. Fixed Effects and Robust Standard Errors from HLM Regressions of White Means of and White/Black and White/Hispanic Gaps in the Log Odds of Having a Doctor/HMO as Usual Source of Care on County-Level Variables

	Model 1		Model 2		Model 3		% (intercept)/marginal effect (coeffs) Model		
	Coeff	SE	Coeff	SE	Coeff	SE	1	2	3
White mean									
Intercept, γ_{00}	1.21	0.05 *	1.18	0.06 *	1.18	0.06 *	77.03 *	76.47 *	76.47 *
Hospitals	-0.11	0.05 *	-0.05	0.05	—	—	-1.91 *	-0.99	—
General practice MDs	0.01	0.01 *	0.01	0.01	—	—	0.23 *	0.12	—
Poverty rate	—	—	-0.05	0.03	-0.05	0.03	—	-0.97	-0.96
% in top income decile	—	—	0.00	0.02	0.00	0.02	—	-0.07	0.09
Urban county	—	—	0.12	0.13	0.15	0.12	—	2.01	2.66
Suburban county	—	—	0.08	0.12	0.08	0.12	—	1.41	1.43
White/black gap									
Intercept, γ_{10}	-0.52	0.13 *	-0.31	0.17	-0.31	0.17	-10.42 *	-5.96	-6.05
Hospitals	0.17	0.13	-0.07	0.15	—	—	3.56	-1.56	—
General practice MDs	-0.03	0.01	-0.03	0.01	—	—	-0.58	-0.53	—
Poverty rate	—	—	0.08	0.04 *	0.06	0.04	—	1.61 *	1.22
% in top income decile	—	—	0.02	0.04	-0.01	0.03	—	0.32	-0.27
Urban county	—	—	-0.26	0.25	-0.32	0.26	—	-5.69	-6.97
Suburban county	—	—	-0.29	0.28	-0.24	0.28	—	-6.40	-5.34
White/Hispanic gap									
Intercept, γ_{20}	-0.57	0.12 *	-0.36	0.16 *	-0.39	0.15 *	-11.63 *	-7.08 *	-7.63 *
Hospitals	0.25	0.09 *	0.01	0.11	—	—	5.36 *	0.26	—
General practice MDs	-0.02	0.01	-0.01	0.02	—	—	-0.55	-0.26	—
Poverty rate	—	—	0.00	0.05	0.00	0.05	—	0.07	-0.07
% in top income decile	—	—	-0.03	0.05	-0.05	0.04	—	-0.68	-1.06
Urban county	—	—	-0.28	0.32	-0.32	0.34	—	-6.30	-7.27
Suburban county	—	—	0.17	0.35	0.19	0.35	—	3.44	3.98

Note: Level-1 n = 48,227. Level-2 n = 88. Data are weighted at level 1. Proxy respondents deleted from analysis. All level-1 models include controls for variables shown in model 5 of tables 4-10.

Table 11b. Fixed Effects and Robust Standard Errors from HLM Regressions of White Means of and White/Black Gaps in the Log Odds of Having a Clinic as Usual Source of Care on County-Level Variables

	Model 1		Model 2		Model 3		% (intercept)/marginal effect (coeffs) Model		
	Coeff	SE	Coeff	SE	Coeff	SE	1	2	3
White mean									
Intercept, γ_{00}	-2.16	0.08 *	-2.14	0.08 *	-2.14	0.08 *	10.31 *	10.53 *	10.53 *
Hospitals	0.09	0.07	0.02	0.07	—	—	0.86	0.21	—
General practice MDs	-0.01	0.01	0.00	0.01	—	—	-0.12	0.00	—
Poverty rate	—	—	0.06	0.03 *	0.06	0.03 *	—	0.56 *	0.55 *
% in top income decile	—	—	0.00	0.02	0.00	0.02	—	0.04	0.03
Urban county	—	—	0.12	0.17	0.11	0.17	—	1.18	1.13
Suburban county	—	—	0.11	0.17	0.10	0.17	—	1.10	0.97
White/black gap									
Intercept, γ_{10}	0.30	0.13 *	0.14	0.18	0.11	0.19	3.12 *	1.37	1.09
Hospitals	-0.17	0.13	-0.07	0.12	—	—	-1.90	-0.75	—
General practice MDs	0.02	0.01	0.00	0.02	—	—	0.19	0.01	—
Poverty rate	—	—	-0.07	0.04	-0.07	0.05	—	-0.75	-0.74
% in top income decile	—	—	-0.04	0.04	-0.04	0.03	—	-0.41	-0.37
Urban county	—	—	0.28	0.26	0.31	0.27	—	3.28	3.57
Suburban county	—	—	-0.66	0.27 *	-0.63	0.28 *	—	-5.36 *	-5.09 *

Note: Level-1 n = 48,227. Level-2 n = 88. Data are weighted at level 1. Proxy respondents deleted from analysis. All level-1 models include controls for variables shown in model 5 of tables 4-10.

Table 11c. Fixed Effects and Robust Standard Errors from HLM Regressions of White Means of and White/Black Gaps in the Log Odds of Having an Emergency/Outpatient/Urgent Care as Usual Source of Care on County-Level Variables

	Model 1		Model 2		Model 3		% (intercept)/marginal effect (coeffs) Model		
	Coeff	SE	Coeff	SE	Coeff	SE	1	2	3
White mean									
Intercept, γ_{00}	-2.78	0.06 *	-2.77	0.06 *	-2.77	0.06 *	5.85 *	5.92 *	5.92 *
Hospitals	0.08	0.03 *	0.03	0.03	—	—	0.44 *	0.18	—
General practice MDs	0.00	0.00	0.00	0.00	—	—	-0.03	0.00	—
Poverty rate	—	—	0.07	0.02 *	0.07	0.01 *	—	0.40 *	0.40 *
% in top income decile	—	—	0.02	0.01	0.02	0.01	—	0.10	0.10
Urban county	—	—	-0.09	0.15	-0.09	0.14	—	-0.46	-0.50
Suburban county	—	—	-0.11	0.10	-0.12	0.10	—	-0.58	-0.61
White/black gap									
Intercept, γ_{10}	0.56	0.11 *	0.54	0.18 *	0.53	0.19 *	3.98 *	3.82 *	3.75 *
Hospitals	-0.12	0.12	-0.10	0.18	—	—	-1.03	-0.87	—
General practice MDs	0.01	0.01	0.02	0.02	—	—	0.06	0.19	—
Poverty rate	—	—	-0.06	0.04	-0.04	0.04	—	-0.47	-0.35
% in top income decile	—	—	-0.03	0.05	0.00	0.05	—	-0.26	0.03
Urban county	—	—	-0.01	0.44	0.10	0.47	—	-0.06	0.91
Suburban county	—	—	0.53	0.43	0.52	0.45	—	5.82	5.65

Note: Level-1 n = 48,227. Level-2 n = 88. Data are weighted at level 1. Proxy respondents deleted from analysis. All level-1 models include controls for variables shown in model 5 of tables 4-10.

Table 11d. Fixed Effects and Robust Standard Errors from HLM Regressions of White Means of and White/Black Gaps in the Log Odds of Having no Usual Source of Care on County-Level Variables

	Model 1		Model 2		Model 3		% (intercept)/marginal effect (coeffs) Model		
	Coeff	SE	Coeff	SE	Coeff	SE	1	2	3
White mean									
Intercept, γ_{00}	-2.96	0.05 *	-3.00	0.04 *	-2.99	0.05 *	4.94 *	4.76 *	4.78 *
Hospitals	0.05	0.03	0.09	0.03 *	—	—	0.22	0.40 *	—
General practice MDs	-0.01	0.01	-0.01	0.01	—	—	-0.03	-0.04	—
Poverty rate	—	—	-0.02	0.02	-0.02	0.02	—	-0.08	-0.09
% in top income decile	—	—	0.00	0.02	-0.02	0.02	—	-0.02	-0.08
Urban county	—	—	0.14	0.13	0.08	0.14	—	0.68	0.39
Suburban county	—	—	-0.03	0.09	-0.03	0.10	—	-0.12	-0.13
White/black gap									
Intercept, γ_{10}	0.19	0.20	-0.08	0.20	0.00	0.17	0.96	-0.37	0.01
Hospitals	-0.05	0.23	0.24	0.27	—	—	-0.26	1.14	—
General practice MDs	0.03	0.02	0.01	0.02	—	—	0.17	0.05	—
Poverty rate	—	—	0.06	0.04	-0.60	0.47	—	0.28	-2.10
% in top income decile	—	—	0.13	0.06 *	0.35	0.48	—	0.56 *	1.86
Urban county	—	—	-0.59	0.54	0.08	0.04 *	—	-1.90	0.38 *
Suburban county	—	—	0.33	0.49	0.12	0.06	—	1.64	0.59

Note: Level-1 n = 48,227. Level-2 n = 88. Data are weighted at level 1. Proxy respondents deleted from analysis. All level-1 models include controls for variables shown in model 5 of tables 4-10.

Table 12. Fixed Effects and Robust Standard Errors from HLM Regressions of White Means of and White/Black Gaps in Dissatisfaction with Health Care Quality on County-Level Variables

	Model 1		Model 2		Model 3		% (intercept)/marginal effect (coeffs) Model		
	Coeff	SE	Coeff	SE	Coeff	SE	1	2	3
White mean									
Intercept, γ_{00}	-1.54	0.03 *	-1.54	0.03 *	-1.54	0.03 *	17.63 *	17.72 *	17.68 *
Hospitals	0.02	0.02	0.01	0.02	—	—	0.34	0.15	—
General practice MDs	-0.01	0.00	0.00	0.00	—	—	-0.09	-0.05	—
Specialist MDs	0.00	0.00	0.00	0.00 *	—	—	0.00	-0.03 *	—
Poverty rate	—	—	0.04	0.01 *	0.03	0.01 *	—	0.61 *	0.50 *
% in top income decile	—	—	0.01	0.01	0.00	0.01	—	0.19	0.00
Urban county	—	—	0.16	0.08	0.05	0.08	—	2.50	0.81
Suburban county	—	—	0.06	0.06	0.08	0.07	—	0.86	1.17
White/black gap									
Intercept, γ_{10}	0.42	0.16 *	0.36	0.20	0.38	0.22	6.93 *	5.81	6.13
Hospitals	-0.13	0.14	-0.01	0.14	—	—	-2.41	-0.10	—
General practice MDs	-0.02	0.02	-0.02	0.02	—	—	-0.31	-0.28	—
Specialist MDs	0.00	0.00	0.00	0.00	—	—	-0.02	0.03	—
Poverty rate	—	—	-0.01	0.04	-0.01	0.04	—	-0.17	-0.16
% in top income decile	—	—	0.04	0.04	0.03	0.03	—	0.77	0.56
Urban county	—	—	-1.12	0.39 *	-1.11	0.36 *	—	-14.38 *	-14.47 *
Suburban county	—	—	-0.55	0.38	-0.55	0.38	—	-8.43	-8.56

Note: Level-1 n = 48,227. Level-2 n = 88. Data are weighted at level 1. Proxy respondents deleted from analysis. All level-1 models include controls for variables shown in model 5 of tables 4-10.

Table 13. Fixed Effects and Robust Standard Errors from HLM Regressions of White Means of the Log Odds of Does Not Usually See Same Doctor on County-Level Variables

	Model 1		Model 2		Model 3		% (intercept)/marginal effect (coeffs) Model		
	Coeff	SE	Coeff	SE	Coeff	SE	1	2	3
White mean									
Intercept, γ_{00}	-2.98	0.05 *	-3.00	0.05 *	-3.00	0.05 *	4.82 *	4.75 *	4.75 *
Hospitals	0.00	0.04	0.00	0.04	—	—	-0.01	0.00	—
General practice MDs	0.00	0.01	0.00	0.01	—	—	0.01	0.01	—
Poverty rate	—	—	0.06	0.02 *	0.06	0.02 *	—	0.27 *	0.27 *
% in top income decile	—	—	0.03	0.01	0.03	0.02	—	0.14	0.14
Urban county	—	—	-0.03	0.17	-0.02	0.15	—	-0.13	-0.11
Suburban county	—	—	-0.14	0.12	-0.14	0.12	—	-0.58	-0.59
White/black gap									
Intercept, γ_{10}	0.58	0.20 *	0.81	0.26 *	0.76	0.26 *	3.51 *	5.38 *	4.91 *
Hospitals	-0.15	0.23	-0.39	0.20	—	—	-1.07	-3.05	—
General practice MDs	0.03	0.02	0.04	0.02 *	—	—	0.22	0.34 *	—
Poverty rate	—	—	-0.02	0.05	0.00	0.05	—	-0.14	0.02
% in top income decile	—	—	-0.04	0.04	0.01	0.04	—	-0.36	0.07
Urban county	—	—	-0.33	0.33	-0.02	0.41	—	-2.62	-0.15
Suburban county	—	—	0.22	0.39	0.45	0.45	—	2.18	4.71

Note: Level-1 n = 48,227. Level-2 n = 88. Data are weighted at level 1. Proxy respondents deleted from analysis. All level-1 models include controls for variables shown in model 5 of tables 4-10.

Table 14. Fixed Effects and Robust Standard Errors from HLM Regressions of White Means of and White/Black and White/Hispanic Gaps in the Log Odds of Not Getting Needed Care on County-Level Variables

	Model 1		Model 2		Model 3		% (intercept)/marginal effect (coeffs) Model		
	Coeff	SE	Coeff	SE	Coeff	SE	1	2	3
White mean									
Intercept, γ_{00}	-2.32	0.04 *	-2.30	0.04 *	-2.31	0.04 *	8.99 *	9.15 *	9.07 *
Hospitals	-0.02	0.03	-0.04	0.03	—	—	-0.13	-0.34	—
General practice MDs	0.00	0.00	0.00	0.00	—	—	-0.04	-0.01	—
Specialist MDs	0.00	0.00	0.00	0.00	—	—	0.01	0.00	—
Poverty rate	—	—	0.04	0.01 *	0.04	0.01 *	—	0.37 *	0.36 *
% in top income decile	—	—	0.01	0.01	0.01	0.01	—	0.07	0.07
Urban county	—	—	0.06	0.12	0.06	0.11	—	0.54	0.51
Suburban county	—	—	0.04	0.08	0.06	0.09	—	0.38	0.50
White/black gap									
Intercept, γ_{10}	0.16	0.16	0.37	0.20	0.35	0.21	1.42	3.55	3.28
Hospitals	0.05	0.16	-0.20	0.20	—	—	0.43	-2.09	—
General practice MDs	-0.01	0.01	0.00	0.02	—	—	-0.06	0.02	—
Specialist MDs	0.00	0.00	0.00	0.00	—	—	-0.03	0.03	—
Poverty rate	—	—	-0.03	0.05	-0.01	0.04	—	-0.36	-0.16
% in top income decile	—	—	-0.04	0.06	0.00	0.04	—	-0.40	-0.05
Urban county	—	—	-0.35	0.48	-0.15	0.50	—	-3.37	-1.52
Suburban county	—	—	-0.29	0.41	-0.18	0.48	—	-2.92	-1.81
White/Hispanic gap									
Intercept, γ_{20}	-0.46	0.16 *	-0.41	0.18 *	-0.35	0.16 *	-3.13 *	-2.86 *	-2.53 *
Hospitals	0.27	0.11 *	0.07	0.14	—	—	1.68 *	0.43	—
General practice MDs	0.00	0.02	0.02	0.02	—	—	-0.02	0.12	—
Specialist MDs	0.00	0.00	0.00	0.00	—	—	0.00	0.01	—
Poverty rate	—	—	0.09	0.05	0.10	0.05	—	0.58	0.65
% in top income decile	—	—	-0.05	0.05	-0.03	0.04	—	-0.28	-0.17
Urban county	—	—	-1.08	0.32 *	-0.92	0.32 *	—	-4.07 *	-3.82 *
Suburban county	—	—	-0.64	0.42	-0.79	0.43	—	-2.86	-3.45

Note: Level-1 n = 48,227. Level-2 n = 88. Data are weighted at level 1. Proxy respondents deleted from analysis. All level-1 models include controls for variables shown in model 5 of tables 4-10.

Table 15. Fixed Effects and Robust Standard Errors from HLM Regressions of White Means of and White/Black Gaps in Greater than Median Time to Routine Care on County-Level Variables

	Model 1		Model 2		Model 3		% (intercept)/marginal effect (coeffs) Model		
	Coeff	SE	Coeff	SE	Coeff	SE	1	2	3
White mean									
Intercept, γ_{00}	-0.38	0.04 *	-0.31	0.04 *	-0.31	0.04 *	40.73 *	42.30 *	42.31 *
Hospitals	0.00	0.03	-0.08	0.03 *	—	—	0.08	-2.05 *	—
General practice MDs	-0.01	0.01	0.00	0.00	—	—	-0.19	-0.06	—
Poverty rate	—	—	0.05	0.01 *	-0.32	0.11 *	—	1.28 *	-7.54 *
% in top income decile	—	—	0.02	0.01 *	0.01	0.10	—	0.57 *	0.16
Urban county	—	—	-0.33	0.11 *	0.05	0.01 *	—	-7.89 *	1.28 *
Suburban county	—	—	-0.02	0.10	0.02	0.01 *	—	-0.50	0.58 *
White/black gap									
Intercept, γ_{10}	0.00	0.12	-0.25	0.15	-0.20	0.16	0.03	-5.84	-4.83
Hospitals	-0.01	0.12	0.20	0.13	—	—	-0.24	4.78	—
General practice MDs	0.00	0.01	-0.03	0.01	—	—	-0.06	-0.60	—
Poverty rate	—	—	0.07	0.04	0.06	0.05	—	1.67	1.38
% in top income decile	—	—	0.13	0.03 *	0.10	0.03 *	—	3.04 *	2.31 *
Urban county	—	—	0.54	0.37	0.35	0.34	—	13.13	8.54
Suburban county	—	—	0.53	0.37	0.45	0.33	—	12.85	10.94

Note: Level-1 n = 48,227. Level-2 n = 88. Data are weighted at level 1. Proxy respondents deleted from analysis. All level-1 models include controls for variables shown in model 5 of tables 4-10.