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Racial/Ethnic Health Disparities in Northeast Ohio

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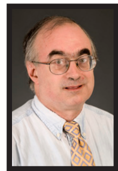
Racial/Ethnic Health Disparities in Northeast Ohio



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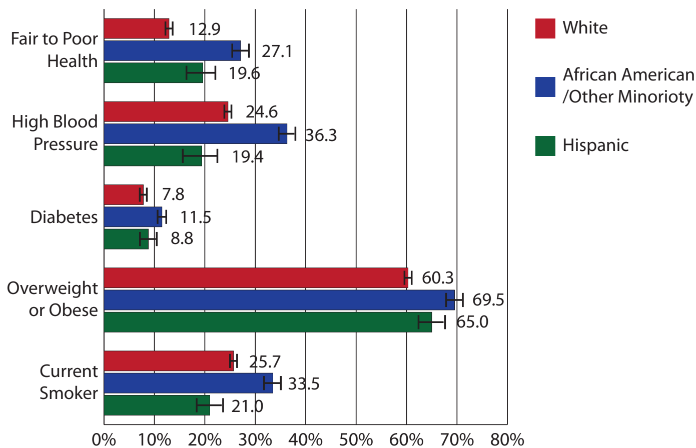
Health disparities or inequalities are a major concern for the public health community and a significant area of research cutting across several disciplines. It has been recognized that racial disparities in health also occur interactively with disparities by socioeconomic status. With a sample of over 50,000 households statewide, the 2008 Ohio Family Health Survey (OFHS) is one of the largest and most comprehensive surveys of its type in the country and provides the most recent data available for Ohio. In addition, a supplemental sample of Cuyahoga, Lorain, and Summit counties provides an enhanced database of those counties.[1] The large sample size permits an examination of racial disparities in the context of other socioeconomic variables such as educational attainment, ratio of family income to the federal poverty level, and geographic location.

This article, adapted from a forthcoming research report, describes racial and ethnic (Hispanic) disparities[3] that exist among adults 18 to 64 and children under 18 in the Cleveland-Akron Combined Statistical Area (CSA)[4] with regard to several major areas that most concern the public health community. These include self-reported health status and conditions, access to health care, and health care resource utilization. We also examine whether racial and ethnic disparities remain after taking into account education and poverty status. Frequently, populations with low income or educational attainment have worse health outcomes and receive poorer quality care; our analysis controlled for these factors to further refine the effect of racial and ethnic differences. (The full report will be available at www.CommunitySolutions.com.)

Adult Health Status and Conditions

- ***Fair or Poor Health:*** More than one-fourth of African American adults (27.1 percent) and one-fifth of Hispanics (19.6 percent) in the CSA rated their own health as fair or poor, significantly[5] greater than the 12.9 percent of Whites who did. The difference between Whites and African Americans was significant in all three urban counties, and the difference between Whites and Hispanics was also significant in Cuyahoga County. When the comparisons were controlled for poverty and education, African Americans in the CSA still had significantly poorer health status than Whites, but Hispanics did not. Fair-to-poor health status was significantly more prevalent among adults who were under 200 percent of the poverty level or who had less than a college degree.
- ***High Blood Pressure:*** More than one-third of African American adults (36.3 percent) in the CSA had ever been diagnosed with high blood pressure, a significantly higher proportion than Whites (24.6 percent) and Hispanics (19.4 percent). Twelve percent of Asians adults had high blood pressure, significantly lower than Whites. As with self-reported health status, the difference between Whites and African Americans was significant in all three urban counties, and the difference between African Americans and Hispanics was also significant in Cuyahoga County. When income and education were taken into account, African Americans in the CSA still had significantly higher rate of hypertension than Whites, and Asians and Hispanics had significantly lower rates. Over all racial/ethnic groups, those with less than a college degree were significantly more likely to have high blood pressure, but low income did not have a significant effect.
- ***Diabetes:*** African American adults in the CSA had a significantly higher proportion who had ever been diagnosed with diabetes (11.5 percent) compared to Whites (7.8 percent); this difference was also significant in Cuyahoga County. Hispanic adults in the CSA had a diabetes rate of 8.8 percent, not significantly different from Whites. However, when controlled for income and education, these racial/ethnic differences in the rate of diabetes in the CSA lost their significance. Adults with incomes below 200 percent of poverty or those with less than a college degree were significantly more likely to be diabetic than those with greater income or education.
- ***Overweight and Obesity:*** More than two-thirds of African American adults (69.5 percent) had an overweight or obese Body Mass Index, (i.e., BMI greater than 25), significantly more than Whites (60.3 percent); 65.0 percent of Hispanics were overweight or obese, not significantly different from Whites or African Americans. However, Asian adults in the CSA had a significantly lower rate of overweight or obesity (27.1 percent) than the other three racial/ethnic groups. Controlling for income and education, African Americans were still significantly more likely than Whites to be overweight or obese and Asians significantly less likely; under these conditions, Hispanics were also significantly more likely than Whites to be overweight or obese. Although adults with only a high school diploma or some college were significantly more likely to be overweight or obese than those with college degrees, those under 200 percent of poverty were significantly less likely than those with higher incomes. The uncontrolled differences also held true in Cuyahoga County; in Summit County, both African Americans and Hispanics had significantly higher rates of overweight or obesity than did Whites.
- ***Smoking:*** One-third of African American adults in the CSA (33.5 percent) were current smokers, significantly higher than the 25.7 percent of Whites and 21.0 percent of Hispanics who smoked. The difference between Whites and African Americans was also significant in Cuyahoga County. However, when the differences are controlled for income and education, African Americans in the CSA were not significantly more likely to be smokers than were Whites, and Hispanics were significantly less likely to smoke than Whites. Smoking was significantly more prevalent among those with incomes under 200 percent of poverty and those with less than a college degree.

Health Status and Conditions by Race and Hispanic Origin, Adults Ages 18 to 64, Cleveland-Akron Combined Statistical Area, 2008



Adult Health Insurance and Access to Health Care

- ***Uninsured:*** About one-fourth of African American (27.9 percent) and Hispanic (22.9 percent) adults in the CSA were currently uninsured, significantly higher than the 14.0 percent of Whites and 17.2 percent of Asians who were uninsured. The difference between Whites and African Americans was also significant in Cuyahoga and Summit counties. When the differences in the CSA are controlled for income and education, African Americans and Asians were significantly more likely than Whites to be uninsured, but Hispanics were not. Uninsured rates were significantly higher for those adults under 200 percent of poverty and those who lack a four-year college degree.
- ***Unmet Dental Needs:*** More than one-fifth of African American (21.5 percent) and Hispanic (20.3 percent) adults in the CSA had unmet dental needs; without controlling for other factors, this was significantly higher than the 12.8 percent of Whites with such needs. The difference between Whites and African Americans was also significant in Cuyahoga and Summit counties, and the difference between Whites and Hispanics was significant in Cuyahoga County. However, when controlled for income and education, there was no significant difference among racial/ethnic groups in the CSA in the proportion with unmet dental needs. Adults below 200 percent of poverty or those with less than a college degree were both more likely to have unmet dental needs than those with higher incomes or education.
- ***Unmet Prescription Needs:*** When not controlling for other factors, a significantly higher proportion of African American adults in the CSA (21.4 percent) had been unable to get a prescription filled due to cost, compared to 14.3 percent of Whites. Hispanics in the CSA had an unmet need rate of 18.6 percent, not significantly different from Whites. The difference between Whites and African Americans was also significant in each of the three urban counties. In addition, in Cuyahoga County Hispanics were significantly more likely than Whites to have unmet prescription needs. However, when controlling for income and education, there was no significant difference in the CSA among Whites, African Americans, and Hispanics in unmet prescription needs. Incomes below 200 percent of poverty and education below a college degree were both significant predictors of unmet need.
- ***Difficulty Paying Medical Bills:*** Almost two-fifths of African American adults in the CSA (38.9 percent) had problems paying their own or others' medical bills in the past year, significantly higher than the 25.4 percent of Whites. Thirty percent of Hispanic adults had trouble paying medical bills, but this was not significantly different from Whites. Only 13.6 percent of Asians had trouble paying, significantly lower than all other racial groups. The difference between African Americans and Whites was also significant in Cuyahoga and Summit counties. These racial/ethnic differences at the CSA level persist when controlling for income and education; those with income below 200 percent of poverty and those without a college degree both were significantly more likely to have problems paying medical bills.

Adult Health Care Utilization and Satisfaction

- ***Routine Check-Ups:*** A significantly greater proportion of African American (82.4 percent), Asian (80.2 percent), and Hispanic (79.0 percent) adults in the CSA had a routine checkup in the past year, compared to 71.8 percent of Whites. These differences were also significant in Cuyahoga County and persisted at the CSA level when controlled for income, education, and health status. Adults with incomes below 200 percent of poverty and those with only a high school diploma or some college were significantly less likely to have had a routine checkup than those with higher incomes or a college degree. The finding that a lower percentage of White adults in the CSA have had a routine checkup in the past year is consistent with results statewide, in both the 2008 and the 2004 OFHS. It could be that since a lower proportion of White adults assess their health as fair to poor, many do not feel the need for an annual checkup.
- ***Hospital Stays:*** In the CSA, a significantly greater proportion of African American (17.0 percent) and Hispanic (15.8 percent) adults had one or more overnight hospital stays in the past year, compared to 10.6 percent of Whites. The difference between African Americans and Whites was also significant in Cuyahoga County and persisted at the CSA level when controlled for income, education, and health status. Those with incomes under 200 percent of poverty and those in fair-to-poor health were more likely to have had a hospital stay, but educational attainment did not have a significant effect.
- ***Emergency Department Use:*** Almost one-third of African American adults (30.8 percent) in the CSA had visited a hospital emergency department (ED) in the past year, a significantly higher proportion than the 19.0 percent of Whites who had done so. One-fourth of Hispanic adults in the CSA had ED visits, but this was not significantly different from Whites. The difference between African Americans and Whites was significant in Cuyahoga and Summit counties. Hispanics in Cuyahoga County also had a significantly higher percentage with ED visits than Whites. When controlling for income, education, and health status at the CSA level, African Americans were still more likely to have had ED visits than Whites. Higher rates of ED usage were also associated with incomes below 200 percent of poverty, educational attainment below a four-year college degree, and fair-to-poor health status.
- ***Dental Visits:*** When differences were not controlled for other factors, a significantly lower percentage of African American adults in the CSA had a dental visit in the past year (69.7 percent), compared to 76.3 percent of Whites; this difference was also significant in Cuyahoga County.

Among Asian adults, 73.1 percent in the CSA had dental visits, as did 70.3 percent of Hispanics, but neither of these was significantly different from Whites. However, there was no significant difference observed at the CSA level between African Americans and Whites when controlling for income, education, and health status; and Asians were significantly lower than Whites in their use of dental care. Adults below 200 percent of poverty, those who lacked a college degree, and those in fair to poor health also were significantly less likely to have had a dental visit.

- ***Satisfaction with Health Care:*** Almost two-fifths of African American adults (38.5 percent) in the CSA and one-third of Asians (32.9 percent) were dissatisfied[6] with their health care in the past year, significantly higher proportions than for Whites (23.9 percent). Twenty-eight percent of Hispanic adults were dissatisfied with their care, but this was not significantly different from Whites. The differences between African Americans and Whites were significant in each of the three urban counties, and the difference between Whites and Asians was significant in Cuyahoga County. When differences were controlled for income, education, and health status, African Americans and Asians at the CSA level were still significantly more likely to be dissatisfied with their care than Whites. Regardless of race, adults with incomes below 200 percent of poverty, those with less than a college degree, and those in fair to poor health were also significantly more likely to be dissatisfied.

Children Under 18

Because of small sample sizes, especially for Asian and Hispanic children, the differences among racial/ethnic groups for children are often not significant or reportable at the county level. However, we are able to report the following differences among White, African American, and occasionally Hispanic and Asian children at the CSA level; where sample sizes permit, we also note significant differences in the three urban counties.

Child Health Status and Conditions

- 7.6 percent of African American children were in fair-to-poor health, compared to 2.1 percent of Whites (significant).
- 23.5 percent of African American and 24.2 percent of Hispanic children had ever been diagnosed with asthma, compared to 12.9 percent of Whites (significant); the difference between African Americans and Whites was also significant in Cuyahoga and Summit counties.
- 52.5 percent of African American and 51.1 percent of Hispanic children had overweight or obese BMIs, compared to 27.8 percent of Whites (significant); the difference between African Americans and Whites was also significant in Cuyahoga and Summit counties.

When the comparisons are controlled for income and adult educational attainment, African American children in the CSA were still significantly more likely than White children to be in fair-to-poor health, to have asthma, and to be overweight or obese; and Hispanic children were significantly more likely than Whites to have asthma and to be overweight or obese.

Regardless of race, children below 100 percent of poverty were significantly more likely to be in fair to poor health and to have asthma; those below 200 percent of poverty were significantly more likely to be overweight or obese. Children in families where the adult had less than a high school diploma were significantly more likely to be in fair-to-poor health; children in families where the adult had less than a college degree were significantly more likely to be overweight or obese.

Child Health Care Access and Utilization

- 7.6 percent of African American children had unmet dental needs, compared to 3.9 percent of Whites (significant); this difference was also significant in Cuyahoga County.
- 23.9 percent of African American children had a hospital ED visit in the past year, compared to 17.1 percent of Whites (significant); this difference was also significant in Cuyahoga and Summit counties.
- 20.1 percent of African American children had their care rated as unsatisfactory by the adult respondent in their family, compared to 10.8 percent of Whites (significant); this difference was also significant in Cuyahoga County.

When controlling for income, adult education, and child's health status, African American children in the CSA remained significantly more likely than White children to receive unsatisfactory care, but not significantly more likely to have an emergency department visit.

Summary and Conclusions

Adults: From most of the measures presented above, it is clear that African American adults in the CSA report poorer health status, less access to care, and less efficient and less satisfactory health care when compared to Whites. African Americans have higher rates of self-assessed fair-to-poor health status, high blood pressure, diabetes, overweight or obesity, and smoking. They are more likely to be uninsured, have unmet dental and prescription drug needs, and have trouble paying their medical bills. They also have higher rates of hospitalization and ED usage, and lower rates of dental care. Many of these disparities persist even when socioeconomic factors such as education and income are taken into account.

Hispanic adults in the CSA have some, but not all, of the same disparities with Whites as do African Americans, including higher rates of self-assessed fair-to-poor health, higher rates of uninsurance, unmet dental needs, and hospitalization. They are also more likely to lack a usual source of care. Again, many of these differences hold regardless of socioeconomic status.

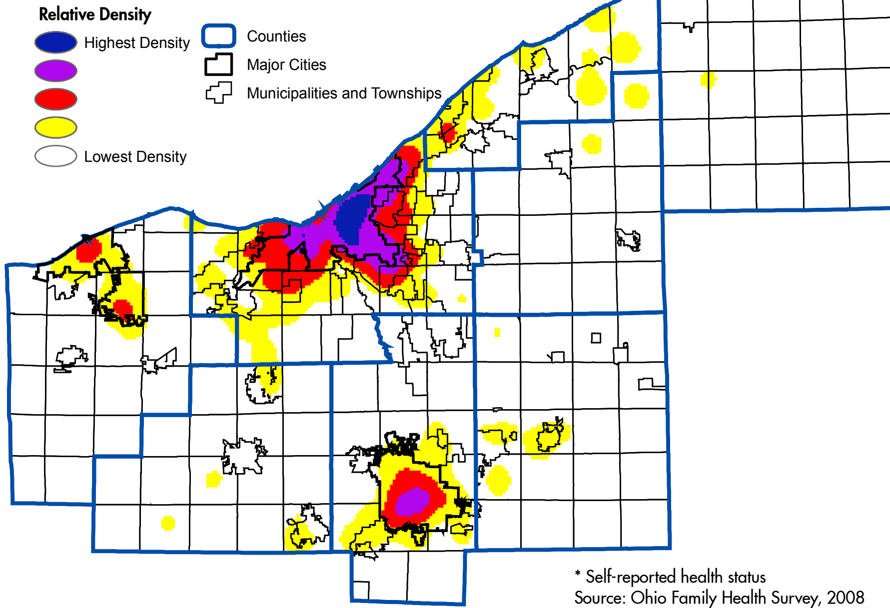
Although their numbers are often too small in the survey sample to yield reportable results, on some measures Asian adults have better health status and at least as good access to care as do Whites. They have lower rates of high blood pressure and overweight/obesity, and are less likely than Whites to have trouble paying medical bills. However, a higher proportion of Asians than Whites were dissatisfied with their medical care, perhaps due to cultural difficulties encountered in obtaining care.

Geographic disparities mirrored racial disparities for some of the variables examined. The areas with the highest densities of adults with fair-to-poor health, those who were uninsured, and those who used emergency rooms were the areas with the greatest concentration of African Americans, although they were also the areas with the greatest concentrations of poverty (see Maps A and B).

Children: Although there are fewer observed disparities in access to care for children in the CSA, African American children have lower health status when compared to Whites. They have higher

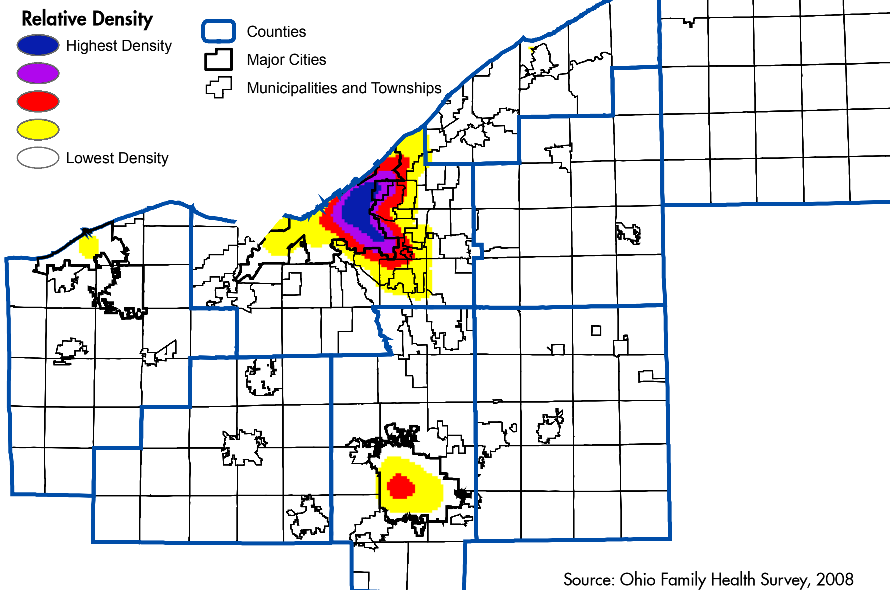
Map A

Adults in Fair to Poor Health*
By Municipality and Township
Northeast Ohio, 2008



Map B

African American or Other Race
By Municipality and Township
Northeast Ohio, 2008



rates of self-assessed fair to poor health, asthma, and overweight/obesity. Hispanic children also have higher rates of asthma and overweight/ obesity than do Whites. African American children have higher rates of hospitalization, ED use, and unmet dental needs than Whites, and are more likely to have their care rated as unsatisfactory by the adult respondent in their family. As with adults, many of these differences persist when controlled for the family's socioeconomic status.

Conclusion

Disparities in health and health care by race, ethnicity, and socioeconomic status are aspects of the *social determinants of health*, defined by the World Health Organization (WHO) as "the circumstances in which people are born, grow up, live, work and age, and the systems put in place to deal with illness,[which] are in turn shaped by a wider set of forces: economics, social policies, and politics."[7] Our study finds that these disparities exist on many levels in Northeast Ohio. We hope that this research will help policymakers and health care providers further understand the pervasiveness of the problem and assist their efforts to improve community health for everyone.

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2. For making the 2008 Northeast Ohio Supplemental Oversample possible, we gratefully acknowledge the generous support of The Center for Health Affairs, Community Foundation of Greater Lorain County, Community Health Partners, Elyria Health District, EMH Regional Medical Center, The Mount Sinai Health Care Foundation, Saint Luke's Foundation of Cleveland, Sisters of Charity Foundation, and the Summit County Health District.
3. The racial/ethnic categories in this report are: White (non-Hispanic), African American and Other Race (non-Hispanic), Asian (non-Hispanic) and Hispanic. Since the sampling of Other Race individuals was negligible and their health care characteristics are similar to African Americans, we have combined them with this latter group and refer to the combined group as simply "African American."
4. The Cleveland-Akron CSA comprises Ashtabula, Cuyahoga, Geauga, Lake, Lorain, Medina, Portage, and Summit counties. We also note selected racial/ethnic disparities in the three urban counties of Cuyahoga, Lorain, and Summit, where there are significant differences among the racial groups.
5. Measures of significance take into account the fact that only a sample of persons were surveyed, rather than the entire population. In this study, we use a significance level of 90 percent, i.e., when the probability is more than 90 percent that the observed differences are not due to the chance selection of surveyed subjects, we call the differences statistically "significant."
6. Satisfaction with health care was measured on a scale from 0 to 10, with 0 being the worst possible care and 10 being the best. Respondents were classified as being dissatisfied if they rated their care less than an 8 on the scale.
7. http://www.who.int/social_determinants/thecommission/finalreport/key_concepts/en/index.html

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