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Racial and Ethnic Health Disparities in Illinois: Are There Any Solutions?

By Robert Kaestner and Lorens Helmchen

Introduction

Illinois has a diverse population: 66 percent of its residents are non-Hispanic white; 15 percent, black; 14 percent, Hispanic or Latino origin; and 4 percent, Asian. Moreover, 12 percent of the state's residents are foreign born; and 19 percent speak a language other than English in the home (U.S. Census 2006). Unfortunately, this demographic diversity is strongly associated with diversity in health status. Blacks and Hispanics are in worse health than non-Hispanic whites. Immigrants arrive in Illinois healthy — even healthier than similar native-born persons — but their health declines rapidly with time spent here. Illinois is not unique, as demographic disparities in health are observed everywhere in the United States.

> "Race, ethnicity and nativity are significantly correlated with income, education, and the use of health care, and all these factors are important determinants of health."

What accounts for the systematic relationship between demographic diversity and health disparities? Race, ethnicity and nativity are significantly correlated with income, education, and the use of health care, and all these factors are important determinants of health. However, disparities in health persist after adjusting for these differences, so other factors must also be at work. Some argue that particular behaviors such as smoking, drinking and diet account for the disparities; but substantial disparities in health remain even after adjusting for differences in these behaviors. Another potential explanation is the quality of care received by persons from different demographic groups. Residential segregation and inadequate reimbursement to Medicaid providers may result in systematic differences across demographic groups in the quality of health care. Some recent evidence suggests that this is an important explanation of racial disparities. Finally, genetic differences may be involved: it is unlikely that purely genetic differences account for much of the racial and ethnic disparities in health, but gene-environment interactions may play a significant role.[1]

To address these racial and ethnic health disparities, Illinois has primarily relied on subsidizing health insurance for low-income families and providing free medical services in public clinics and hospitals. Medicaid (All Kids and Family Care) provides subsidized health insurance for all families with children in Illinois, although the vast majority of families served by these programs are those with incomes below 200 percent of poverty. For childless adults and those not eligible for publicly-subsidized insurance (e.g., illegal residents), public facilities provide free health-care services to those without insurance. The connection between these programs and racial and ethnic disparities is that these programs are targeted at low-income persons without health insurance, a group that is disproportionately black, Hispanic and foreign-born. The state has

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few programs directly focused on racial and ethnic health disparities and provides very few resources directly for this purpose. The Illinois Department of Public Health does have a Center for Minority Health Services, which provides information and technical assistance regarding the health care needs of minority populations, but the center does not have a significant budget.

> "Would reducing eligibility for publicly subsidized health insurance have worsened racial and ethnic disparities in children's health?"

It is clear from evidence we present below and from other studies that these and other policies have not eliminated racial and ethnic health disparities in Illinois or in the United States as a whole. Nationally, racial and ethnic disparities in health and health care decreased slightly over the past 20 years, although not in Chicago.[2] Since there have been no significant recent policy changes that affect the health of non-elderly in Illinois or nationally, the minor changes in racial and ethnic disparities in health are largely independent of public policy. Nevertheless, racial and ethnic disparities in health could have been worse in the absence of current policies. For example, would reducing the size of Stroger Hospital in Chicago worsen racial and ethnic disparities in health in Chicago? Would reducing eligibility for publicly subsidized health insurance have worsened racial and ethnic disparities in children's health? The answers to these questions depend on how these policies affect use of health care services and how important those services are to health.

We try to answer these questions here. We'll also identify potential policies that would ameliorate racial and ethnic health disparities beyond the provision of free medical care and subsidized health insurance for low-income persons.

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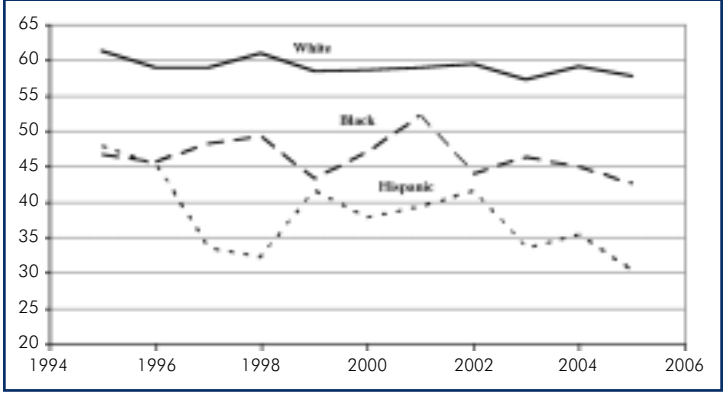
Racial and Ethnic Disparities in Health in Illinois

There is relatively little information on racial and ethnic health disparities in Illinois beyond that obtained from birth and death records. For example, published figures reveal that black infant mortality in Illinois is 2.5 times that of white infant mortality, and all-cause (age-adjusted) mortality of black persons is 1.4 times that of white persons (Illinois Department of Public Health in Illinois; Kaiser Family Foundation). There is little published information on Hispanic versus white disparities. Here we provide illustrative evidence of racial and ethnic health disparities using data drawn from the Illinois Behavioral Risk Factor Surveillance System (BRFSS), which is a survey of the adult population in Illinois. The BRFSS provides information on several general measures of health, health behaviors, and health care use. We focus on Illinois residents between the ages of 40 and 64 of different racial and ethnic groups.[3]

Figure 1 shows recent trends in the proportions of 40 to 64 year-olds reporting excellent or very good overall health. The data for men and women (not shown separately) are broadly similar, and there are disparities across races for both genders. Approximately 60 percent of white men and women, but only 40-50 percent of black men and women, in this age bracket in Illinois report very good or excellent health. Hispanic men and women in this age group are the least likely to report excellent or very good health, especially in recent years. The disparities in self-reported health are about the same as those reported for mortality — black and Hispanic persons are approximately 1.5 times as likely as white persons to report not being in excellent or good health. Similar disparities are found when we examine the proportion of days in the past month a person reports being in poor physical health. Black and Hispanic persons report worse health than white persons and the disparities are approximately the same magnitude as for other

Figure 1. Percentage of 40-64-Year-Olds Reporting Excellent or Very Good General Health, 1995-2005



outcomes; black and Hispanic men and women are between 1.3 and 1.5 times as likely to report being in poor physical health than white persons.

Approximately 75 percent of black men report visiting the doctor in the last year for a routine checkup whereas only 60 to 65 percent of white and Hispanic men report such a visit. Black women also report higher rates of visits to the doctor than white or Hispanic women. Thus, it is not obvious that differential access to health care is the cause of the observed health disparities, although the higher rates of doctor visits for black persons may reflect their poorer health.

> "The proportion of persons who lacked health insurance is approximately equal to the proportion of persons who report poor physical health."

Data on insurance coverage also do not clearly point to access as the cause of health disparities. About 90 percent of white men and women between the ages 40 and 64 in Illinois are covered by some type of health insurance. The similar figure for black persons is 80 percent. For Hispanics, it is closer to 70 percent at the end of the period (2004) with a clear downward trend in coverage between 1995 and 2004. While black and Hispanic persons have lower rates of coverage, the disparities in coverage are much smaller than the disparities in health. However, looked at somewhat differently, twice as many black and Hispanic persons are without health insurance coverage and the proportion of persons in a group lacking coverage is approximately equal to the proportion that report being in poor physical health.

The last set of figures we discuss relate to health behaviors: smoking and body mass index. Black men and women have the highest rates of smoking. Approximately 35 percent of black men report being a smoker as compared to 25 percent of white men. Similarly, approximately 28 percent of black women report being a smoker as compared to 22 percent of white women. Trends for Hispanic persons are much more volatile than for the other two groups, but in general, Hispanic men and women appear to have rates of smoking similar to or slightly less than white persons. For body mass index (BMI), black, white and Hispanic men report similar weight and it has been increasing over time, which mirrors the national growth in obesity. Among women, black women are significantly heavier than Hispanic and white women and white women report the lowest weight (BMI). Weight has been increasing over time for women too. Note that the mean BMI for all groups in every year between 1995 and 2004 is what the Centers for Disease Control and Prevention (CDC) considers to be overweight.

In summary, there are significant disparities in health by race and ethnicity in Illinois, not unlike the rest of the nation. These disparities appear to be larger than disparities in access to care, although the evidence is not uniform on this point. The proportion of persons who lacked health insurance is approximately equal to the proportion of persons who report poor physical health. Finally, there is some evidence that health behaviors may explain some of the disparities, but health disparities appear to be much larger than differences in health behaviors. Black men and women are more likely to smoke than white men and women in Illinois, and black women have a significantly higher BMI than white women. Hispanic persons in Illinois have similar smoking rates as whites, but Hispanic women are more likely to be overweight.

Can Education, Income, Access to Care and Health Behaviors Explain Disparities?

We now turn to a more precise assessment of the correlates of health and whether these correlates can explain racial and ethnic health disparities among persons between the ages of 40 and 64 in Illinois. This will help identify potential policy solutions and provide information to assess the likely success of current programs. We focus on education, income, health insurance coverage, doctor visits, smoking, and BMI. Our strategy is to identify what proportion of racial and ethnic health disparities can be explained by each factor individually and what proportion the factors jointly explain.

The measure of health we examine is self-reported health status — whether a person rates his or her health as excellent or very good. Table 1 presents estimates of racial and ethnic disparities for this outcome. Disparities for males are shown in the top panel and females in the bottom panel. Entries show the percentage point difference for other groups as compared to whites, with various other factors accounted for statistically. In column one, we show the differences between black and white self-rated health (row one) and Hispanic and white self-rated health (row two) where the only statistical adjustments are for age and for year-to-year average variation. In effect, we compare people of the same age but different racial-ethnic groups. These estimates are similar to those implied by Figure 1. Black and Hispanic adults are significantly less likely to report that they are in excellent or good health than white adults.

Specifically, the probability that black men report being in excellent or good health is 16.8 percentage points (28 percent) lower than white men, and the probability that Hispanic men report being in excellent or good health is 18.7 percentage points (31 percent) lower than white men. For women, the same deficits are 21.7 percentage points (36 percent) for blacks and 26.3 percentage points (44 percent) for Hispanics.

In column two, we adjust for differences in education and income between the racial and ethnic groups. The results are sobering: equalizing education and income would cut racial health disparities roughly in half for black men and women and by a whopping three-fourths for Hispanic men and 60 percent for Hispanic women. We adjust in column three for differences in health insurance coverage and whether a person visited the doctor in the past year. In this case, we see relatively little change from column one, suggesting that these factors are not driving the racial health gap. This is not an unusual finding, as many studies document the relatively weak link between health insurance coverage and use of medical services and health. In column four, we adjust only for differences in health behaviors as measured by whether a person is a smoker and BMI. Again, we see relatively little change in disparities; health behaviors account for about the same proportion of disparities as do health insurance and doctor visits. Finally, in column five, we present estimates of health disparities that adjust for all the measured factors. As compared to column one, estimates in column five indicate that the six factors we consider can explain approximately 65 percent of the racial and ethnic disparities in health of women and approximately 80 percent of the racial and ethnic disparities in health among men. Only when we take account of *all* these other factors do we no longer detect a statistically significant racial gap in health for men. That is, the 4 percentage point and 2.8 percentage point differences in column five are statistically indistinguishable from no difference at all by race. For women, by contrast, even the full model in column five does not explain enough of the variance across racial and ethnic groups to make the gap statistically insignificant.

> "Education and income are by far the most important factors, accounting for between 70 percent and 100 percent of the explained share of racial and ethnic disparities in health."

Education and income are by far the most important factors, accounting for between 70 percent and 100 percent of the explained share of racial and ethnic disparities in health. Health insurance, visits to the doctor, and health behaviors have virtually no effect on such disparity between Hispanic and white women after adjusting for education and income. Education and income are even more dominant explanations of racial and ethnic disparities in health when we use an alternative measure of health: proportion of days in the past month in poor physical health. For this outcome, adjusting for education and income virtually eliminates racial and ethnic health disparities.

Policy Implications

The message from this analysis is that racial and ethnic disparities in health are likely to persist given current policy in Illinois. Providing publicly subsidized insurance and free medical care will do little to improve the underlying health of black and Hispanic persons relative to that of white persons. Disparities in health are the result of complex factors that are highly correlated with education and to a lesser extent income. Health insurance coverage, visits to doctors, and health behaviors are weakly related to racial and ethnic health disparities. One explanation of this counterintuitive, but recurring, finding is that the quality of care received by black and Hispanic people may be quite low, and more insurance and greater use of health care may be doing quite little. Residential segregation and inadequate reimbursement of Medicaid

Table 1. Explaining Racial and Ethnic Health Disparities, 1994-2005

	Excellent or Very Good General Health (self-reported)				
Males	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**
Black v. White	-16.8	-6.7	-12.8	-14.7	-4.0 *
Hispanic v. White	-18.7	-4.5	-13.5	-16.5	-2.8 *
Females					
Black v. White	-21.7	-12.5	-19.4	-15.6	-8.3
Hispanic v. White	-26.3	-9.7	-23.3	-22.7	-9.4
Control Variables	Age	Age Education Income	Age Health Insurance Doctor Visit	Age Smoking BMI	Age Education Income Health Insurance Doctor Visit Smoking BMI

* Not statistically significant difference

providers result in black and Hispanic persons receiving care from different providers than white persons and the quality of these providers may be inferior.

Ideally, the best solution would be to eliminate racial and ethnic disparities in education. Not only would this change significantly reduce racial and ethnic health disparities, it would significantly reduce these disparities in almost all aspects of life. However, the likelihood of complete success in this area is remote. Urban public schools are the poorest performing of Illinois public schools and these are the schools that are educating most of the black and Hispanic children. Only 57 percent of black and Hispanic students in Illinois graduate from high school (Greene and Winters 2002).

A more feasible policy would be to eliminate the two-tier system of care that exists because of residential segregation, public provision of care, and inadequate public reimbursement of providers. Replacing Medicaid and public provision of care with a true voucher system that would allow low-income persons to join private health insurance plans and receive care from the same providers that serve white persons would be an important start. An important aspect of this program would be to require that the voucher be used in plans where at least 50 percent of the participants are non-voucher recipients and part of a managed care network with a common set of providers. This would ensure that persons with the voucher receive care from the same providers as those without vouchers.

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How much would this cost? In Illinois, approximately 1.4 million non-elderly are covered by Medicaid and another 900,000 low-income persons are without health insurance. Assuming that the voucher would be $3,000 per person because most children and uninsured adults are healthy, the cost of providing the voucher to 2.3 million people would be $6.9 billion. While this is a significant sum, note that Medicaid already spends approximately $5 billion on non-elderly persons and Cook County spends nearly $1 billion on the Bureau of Health Services. These funds would cover the cost of two million vouchers. Other state spending could make up the difference.

Again, the best way to eliminate racial and ethnic health disparities would be to eliminate disparities in education. While this may be surprising in the context of health, eliminating educational disparities has long been a social goal for many good reasons. Unfortunately, it is a goal for which success is unlikely to happen soon.

An alternative that would significantly reduce racial and ethnic disparities in health is to transform the current programs of subsidized health insurance and free medical care into a true voucher program. Such a program would allow low-income families, which are disproportionately black and Hispanic, to buy into the same network of quality providers accessible to middle-class persons in Illinois. This would eliminate the current two-tiered health care system that relegates many black and Hispanic families to low-quality care. ■

[1] See, e.g., M.D. Hayward et al, "The Significance of Socioeconomic Status in Explaining the Racial Gap in Chronic Health Conditions." *America Sociological Review* 65 (2000):910-29; N.B. Anderson et al. (ed.s), *Critical Perspectives on Differences in Racial and Ethnic Differences in Health in Later Life*, Washington, DC: National Academies Press.

[2] See H. Margellos et al., "Comparison of Health Status Indicators in Chicago: Are Black–White Disparities Worsening?" *American Journal of Public Health*, 94 (2000): 116–21.

[3] All figures are from authors' calculations using data from the BRFSS. Sample means and proportions are obtained using sample weights provided by BRFSS. We use a three-year moving average to estimate the annual mean. Small samples of Black and Hispanic persons result in some obvious variability in estimated trends.

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