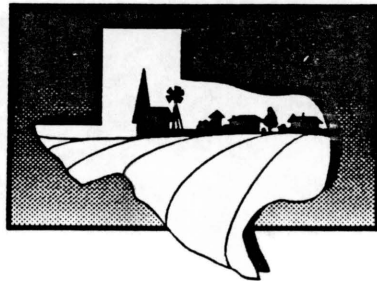


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ETHNICITY, HEALTH CARE & SOCIO-ECONOMIC STATUS: THE CONTINUING DISPARITY AMONG MINORITY CHILDREN IN TEXAS

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ABSTRACT

This research investigated economic, health, and medical insurance disparities among children in three ethnic groups in the Dallas, Texas metropolitan area (N = 1511). Minority children were significantly less likely to have medical insurance and medical homes than White children. Furthermore, Hispanic children were more economically at risk and more likely to lack medical insurance than either African-American or White children. Policy efforts to maximize children's access to medical care must focus on income barriers, lack of insurance, and access to medical homes.

Key words: children, ethnicity, health care.
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INTRODUCTION

It is evident from the research on health care use that having insurance and the type of insurance greatly influence children's use of physician and emergency room services. Uninsured children have been found to be the most at risk for unmet health care needs, while managed care and fee-for-service Medicaid insured children have been found to fare better (Dubay & Kenny, 2001; Lillie-Blanton,

Martinez, Lyons, & Rowland, 1999; Rosenbach, Irvin, & Coulam, 1999; Hall, 1999; Rowland, Feder, & Keenan, 1998; Aday, 1993). Uninsured children have fewer physician visits and are less likely to have a routine source of care than insured children (Hughes, Johnson, & Rowenbaum, 1999; Weissman & Epstein, 1993; Wood, Hayward, Corey, Freeman, & Shapiro, 1990).

Income has been associated with both having medical insurance and use of health care services. Children from households with higher income levels are more likely to receive illness and preventative care, while uninsured children are less likely to have ambulatory and preventative care (Wood et al., 1990; Cunningham & Hahn, 1994). Lower rates of medical care use and being uninsured are apparent among minorities, immigrant children, and lower income families. Hispanic children make up 29% of the nation's uninsured children (Carrillo, Trevino, Betancourt, & Coustasse, 2001). Minorities and immigrant children have been found to have fewer physician visits than White children (Dubay & Kenney, 2001; Aday, 1993; Ku & Matani, 2001; Lillie-Blanton, 1999).

Even as certain areas of Texas generally prosper, poverty in the state is no less prevalent than in the nation as a whole, and disproportionately higher among Texas minorities, especially Hispanics. In 1997, about 17% of Texans were at or below the poverty level. Hispanic and African-Americans composed a disproportionate share of this number. Nearly one-third of the Hispanics in Texas are in poverty. This is also true for 26% of the African-Americans in Texas. Moreover, children are the most likely group in Texas to be living in poverty, accounting for half of all Texans living in poverty. This high poverty rate has translated into equally high percentages of children without health

care insurance in Texas. As of 1998, Texas had the highest rate of uninsured in the nation, with 25% of the total state population lacking health care insurance. Thirty-one percent of those uninsured were children (1.4 million), while the national average was 14.8% (Texas Health and Human Services Commission, 1999).

Nationally, Hispanics are the largest minority group in the United States (Falcon, Aguirre-Molina, & Molina, 2001). They are the most likely to lack health care insurance. This makes Hispanic children particularly at risk for lacking access to health care and childhood morbidity. Recent studies indicate that Mexican-American children have higher rates of being overweight than both White and African-American children (Carter, Pokras, & Zambrana, 2001). Other data support the vulnerability of Hispanic children. For example, some studies have found that Hispanic children, overall, are less likely to get immunizations and have lower rates of use and access to preventive dentistry than White or African-American children (Flores & Zambrana, 2001).

This research briefly examines ethnic variation in socio-economic status, medical insurance status, and medical home status among three ethnic groups of children in the Dallas, Texas metropolitan area. Given the differential medical needs of children and the growing number of uninsured minority children in Texas, it is relevant to re-examine the disparities in access to medical care previously delineated. We find that even in this era of health care reform and general economic prosperity in North Texas, significant disparity remains among children by ethnic group.

METHODOLOGY

Random digit dialing was used to survey a sample of 1606 caregivers to children under 15 years of age. Data were gathered between April and May 1999. Caregivers were defined as respondents who had or shared the health care responsibility for the children in their home. Caregivers were asked about a variety of health service use behaviors, social-psychological issues related to health service use, and their demographic characteristics. Interviews were conducted in either Spanish or English according to the respondent's language preference.

The sample was composed of 1606 guardians of children under 15 years of age. The sample was pre-stratified by both income level and urban/suburban residency to insure adequate numbers of uninsured and Medicaid insured children for statistical analysis and, then, statistically weighted to reflect correct proportions based on the 1999 United States census data. The overall sample margin of error was $\pm 2.4\%$. Three income levels were used for stratification: 1) less than \$20,000; 2) at least \$20,000, but less than \$35,000; and 3) \$35,000 or more. These categories were selected for stratification because they would maximize the likelihood of locating households that included children without medical insurance and those with Medicaid. The federal poverty guidelines were used to construct an income stratification variable so that the lowest level included families that were predominantly at or below 100% of poverty; the intermediate category would include families that were predominantly between 100% and 200% of poverty, and the highest category would include predominantly families with incomes above poverty (Covering Kids, 1999).

After the screening criteria were met (adult respondent, children under 15 in the home, responsibility for children's health care), respondents were asked the ages of the children under 15 in their homes. Since respondents with more than one child could have answered the survey for several children, they were asked to answer the questions using a "target" child that was randomly selected by the interviewing software from among the children under age 15 in their home. Because of the large Spanish speaking population in the Dallas area, the instrument was translated into Spanish. Interviews were conducted in either Spanish or English depending on the respondent's language preference.

VARIABLE MEASURES

A broad array of demographic, economic, social, and children's health status variables were used. Ethnicity was self-reported by the respondent and used as a cultural variable. Ethnicity was collapsed to White, Black, and Hispanic because of insufficient frequencies of other ethnic groups in the sample (adjusted $N=1511$). Other demographic variables included urban/suburban residency, caregiver's educational level, yearly household income, age, marital status, race, number of adult caregivers in the home, and number of children under 15 in the home. Type of insurance was measured as commercial managed care (respondents identified their child's insurance plan as an HMO, PPO, or POS type plan), fee-for-service Medicaid, uninsured, other, and don't know/undeterminable. [The "other" category included commercial indemnity insurance as well as other types of insurance that could not be identified as a managed care plan.]

A medical home is defined as the place where patients receive both well and sick care at one location—one place where the patient can return overtime for medical care. A medical home can provide the continuity of care necessary to improve patients' quality of life through early detection of disease, prevention of illness, and case management. Caregivers were asked where their child usually received sick and well care. Children who received sick and well care at a physician's office were coded as having a medical home with a private physician. Children who received their sick and well care at a community health center were coded as having a medical home at a community health center. Any other combinations of these two variables were coded as "no" medical home, since that would involve either using a hospital emergency room for sick and well care or some type of mismatch between using a private physician, emergency room, or community health center for sick and well care. A child's health status was measured by the caregiver's perception of the child's overall health and the number of physician visits during the six months preceding the survey.

RESULTS

Table 1 presents the characteristics of the sample by ethnicity with appropriate tests of significance. Significant ethnic differences were observed for almost every variable. Minorities had significantly lower levels of education, income, were younger, less likely to be married, and averaged more children under 15 years of age in the home than White people. With regard to health care issues, minorities were significantly more likely to say their children's usual source of sick and well

care were either a community health center or hospital emergency room. In addition, their children were less likely to have medical homes, and caregivers were significantly more likely to rate their children's overall health as only "good" or worse.

Looking specifically within ethnic groups, numerous differences were observed between Hispanics, African-Americans, and White children. Hispanic children appear to be the most at risk for poverty and to lack adequate health care insurance. Hispanic caregivers, by large margins, had lower educational levels and lower incomes. Hispanics also had larger household sizes (averaged more children and adults in the home) and Hispanic caregivers were more likely to be young. Sixty-seven percent of the Hispanic caregivers interviewed were under age 34 and nearly 19% were 18 to 24 years old, while 9% of African-Americans and 5.7% of Whites were less than 24 years of age.

Children of Hispanic caregivers are acutely at risk to lack health care insurance. Children of Hispanic caregivers were more than twice as likely to be uninsured as African-American children and three times more likely to be uninsured than those of White caregivers. Furthermore, Hispanic children were substantially less likely to have Medicaid or commercial insurance than children of either African-American or White caregivers. African-American and Hispanic children were three times more likely not to have a medical home than White children. Finally, children of Hispanic caregivers were substantially more likely to rely on community health centers for sick and well care.

Table 1a. Characteristics by Ethnicity (N = 1511)*

Variable	Hispanic		African-American		White		Sig
	Count	Percent	Count	Percent	Count	Percent	
Area							
Urban	146	45.1%	125	43.3%	92	10.2%	
Suburban	178	54.9%	164	56.7%	806	89.8%	
Total	324	100.0%	289	100.0%	898	100.0%	(P < 0.001) †
Education							
<High school	126	39.0%	13	4.5%	26	2.9%	
HS or GED	80	24.8%	72	25.0%	139	15.5%	
Trade/vocational	17	5.3%	27	9.4%	33	3.7%	
Some college	35	10.8%	73	25.3%	205	22.8%	
AA	16	5.0%	33	11.5%	56	6.2%	
BA	39	12.1%	55	19.1%	267	29.7%	
Graduate	10	3.1%	15	5.2%	173	19.2%	
Total	323	100.0%	288	100.0%	899	100.0%	(P < 0.001) †
Income							
<\$10,000	37	11.4%	38	13.1%	15	1.7%	
\$10-19,999	95	29.3%	46	15.9%	44	4.9%	
\$20-34,999	82	25.3%	87	30.0%	103	11.5%	
\$35-49,999	56	17.3%	56	19.3%	173	19.3%	
\$50-74,999	29	9.0%	31	10.7%	196	21.8%	
\$75,000+	25	7.7%	32	11.0%	367	40.9%	
Total	324	100.0%	290	100.0%	898	100.0%	(P < 0.001) †
Marital Status							
Married	253	78.1%	138	48.1%	751	83.6%	
Not married	71	21.9%	149	51.9%	147	16.4%	
Total	324	100.0%	287	100.0%	898	100.0%	(P < 0.001) †
Caregiver's Age							
18-24	62	19.1%	26	9.0%	51	5.7%	
25-34	156	48.1%	129	44.6%	281	31.3%	
35-44	89	27.5%	98	33.9%	421	46.9%	
45-54	16	4.9%	27	9.3%	118	13.1%	
55+	1	0.3%	9	3.1%	27	3.0%	
Total	324	100.0%	289	100.0%	898	100.0%	(P < 0.001) †
Medical Insurance							
Yes	197	60.8%	244	84.4%	805	89.6%	
No	127	39.2%	45	15.6%	93	10.4%	
Total	324	100.0%	289	100.0%	898	100.0%	(P < 0.001) †

*Total N's vary because of incomplete responses. † Chi-square analysis. ‡ One-way analysis of variance.

Table 1b. Characteristics by Ethnicity (N = 1511)*

Variable	Hispanic		African-American		White		Sig
	Count	Percent	Count	Percent	Count	Percent	
Type of Insurance							
Managed care	104	32.05	127	43.9%	553	61.6%	
Medicaid	44	13.5%	67	23.2%	31	3.5%	
Uninsured	127	39.1%	45	15.6%	93	10.4%	
Other	20	6.2%	29	10.0%	134	14.9%	
Don't know	23	7.1%	14	4.8%	50	5.6%	
Undeterminable	6	2.2%	7	2.4%	37	4.1%	
Total	324	100.0%	289	100.0%	898	100.0%	(P < 0.001) †
Usual Source of Sick Care							
Physician's office	188	58.4%	181	62.8%	821	91.5%	
Hospital ER	18	5.6%	45	15.6%	21	2.3%	
Hospital CHC	116	36.0%	62	21.5%	55	6.1%	
Total	322	100.0%	288	100.0%	897	100.0%	(P < 0.001) †
Usual Source of Well Care							
Physician's office	168	52.5%	191	67.3%	827	92.3%	
Hospital ER/CHC	152	47.5%	93	32.7%	69	7.7%	
Total	320	100.0%	284	100.0%	896	100.0%	(P < 0.001) †
Medical Home							
Physician's office	154	48.4%	166	58.2%	796	88.8%	
CHC	103	32.4%	46	16.1%	36	4.0%	
None	61	19.2%	73	25.6%	64	7.1%	
Total	318	100.0%	285	100.0%	896	100.0%	(P < 0.001) †
Perceived Health Status							
Poor/fair	27	8.3%	17	5.9%	11	1.2%	
Good	62	19.1%	43	15.0%	85	9.5%	
Very good	107	33.0%	110	38.3%	265	29.5%	
Excellent	128	39.5%	117	40.8%	536	59.8%	
Total	324	100.0%	287	100.0%	897	100.0%	(P < 0.001) †
	Mean		Mean		Mean		
Mean number physician visits	1.45		1.24		1.67		(P < 0.01) ‡
Mean N adults in the home	1.86		1.47		1.69		(P < 0.001) ‡
Mean N children <15 in household	2.00		1.82		1.73		(P < 0.001) ‡

CHC= Community health center.

*Total N's vary because of incomplete responses. † Chi-square analysis. ‡ One-way analysis of variance.

DISCUSSION

Access to health care has been and continues to be stratified by ethnicity and socio-economic conditions, even under the Medicaid reforms of the 1980s. [SCHIP wasn't initiated in Texas until 2000, after these data were collected.] This research indicates that Hispanic children in Dallas, Texas are more likely to live in low income, poorly educated families than either African-American or White children. Furthermore, medical insurance remains problematic for minority children and, again, is exacerbated among Hispanic children. Minority children overall are less likely to have medical homes (the same place for sick and well care) than White children.

Within the two minority groups studied, Hispanic children are more likely to use community health centers for both sick and well care than African-American children, possibly improving continuity of care for these children. African-American children are more likely to access several different types of health care providers for sick and well care with a larger proportion reporting the use of hospital emergency rooms for sick care than Hispanics. This may indicate improved continuity of medical care for some Hispanic children compared to African-American children in the area; however, the sharp contrast with White children for having *any* type of medical home punctuates the continuity of care disparity among minority children.

Children's use of physician services is a direct function of their parent's ability to obtain employment with medical benefits, to enroll children in Medicaid if eligible, or to fend for themselves "out-of-pocket." Given the high cost of medical care, and our study's findings that Hispanic children in Dallas are disproportionately more likely to be unin-

sured, more likely to live in families with low incomes, and more likely to have guardians with very low educational levels, many Hispanic children are particularly at risk. Further, given the expanding Hispanic population in Texas (United States Census Bureau, 2000), the number of Hispanic children at risk of poverty and inadequate health care is growing. We found Hispanic children to be at the greatest risk of living in poor families and to lack medical insurance in an economically prosperous, large metropolitan area of Texas with large numbers of health care providers and facilities. These socio-economic and health care access inequalities are substantially exacerbated among cities along the Texas/Mexico border, rural agricultural areas, and among Hispanic *colonias*—rural unincorporated residential developments along the Texas/Mexico border that lack public services such as electricity, water, and sewage (Williams, 2001).

Children's health care is an important part of the broad array of care necessary to rearing children in a modern industrial society. Children represent the future economic security of any nation, as a part of the workforce and as productive members of society. The well-being of children should, therefore, be a focus of major concern in the public policy arena of the nation (Bergman, 1996; Wilson, 1999). Compared to other industrialized countries on measures such as neonatal mortality, post-neonatal mortality, infant mortality, low birth weight, and life expectancy, the United States does a relatively poor job of protecting the health of its children (Starfield, 1999; Starfield, 1998).

The state of health care delivery and financing in the United States at the beginning of the twenty-first century is highly volatile with changes taking place in access to care and financing mechanisms in both

private and publicly funded insurance plans. Meanwhile, the number of uninsured children is disproportionately greater among minority children, especially Hispanics (Mills, 2001). Addressing the effects of poverty among children in Texas, including lack of insurance and access to adequate health care, will require state and national debates that focus on our ideology of individualism maintaining that people should stand on their own feet and that government assistance only undermines that independence (Kawachi, Kennedy, & Wilkinson, 1999; Bergman, 1996; Schor & Menaghan, 1995). Policy efforts to maximize children's access to medical care must continue to focus on overcoming income barriers, lack of insurance, and access to medical homes, all which are exacerbated among Texas' minority children.

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