Racial/Ethnic Disparities Related to Health Insurance Coverage, Access to Care and Ease in Health Care Services among Children in 2012 CCHAPS Data

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Abstract

nObjective:The aim of this study was to examine racial/ethnic disparities in unmet medical care, dental care and prescription medications and ease of using heath care services.

Methods:This is a cross sectional study of households in a six-county service region in Texas (Tarrant, Johnson, Hood, Parker, Wise and Denton Counties). The participants included the parents/guardians of children aged 1-15 years. In 2012, a total of 8,439 parents completed the survey. In 2012, 4194 completed the version containing the health insurance type and unmet medical, prescription and dental health care and ease/difficulty in access to health care questions.The dependent variables in this study included perceived general health status; use of needed health care and ease/difficulty in access to health care services.

Results/Discussion: . Disparities exist and a key area to address is the lack of insurance or inconsistency of insurance coverage especially in minorities. Almost 10% of the children in the study population had a lapse of health insurance coverage during the previous 12 months. There was no significant difference between the unmet health care of those with public or private insurance. In addition, racial/ethnic disparities were found in the ease of access to preventive and dental services as well as care for an illness.

Keywords

: race/ethnicity; health disparities; children; poverty; health insurance; unmet needs; perceived health status; medical care; dental care; prescriptions

Cover Page Footnote

The authors wish to thank Mr. Larry Tubb, MBA, Executive Director of the Center for Children's Health and SrVP of Cook Children's Health Care System for his guidance and invaluable insight into the CCHAPS process and data; and Mrs. Sheryl Fingers, MHA, Data Analyst for her assistance in coordinating data files for this project.

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ABSTRACT

Importance**:** Although there is extensive literature on racial/ethnic disparities in access to health care and ease of using health care services, very little is directed towards children. Children's access to care and ease of using health services is an important indicator for overall children's health.

Objective**:** The aim of this study was to examine racial/ethnic disparities in unmet medical care, dental care and prescription medications and ease of using heath care services.

Methods**:** This is a cross sectional study of households in a six-county service region in Texas (Tarrant, Johnson, Hood, Parker, Wise and Denton Counties). The participants included the parents/guardians of children aged 1-15 years. In 2012, a total of 8,439 parents completed the survey. In 2012, 4194 completed the version containing the health insurance type and unmet medical, prescription and dental health care and ease/difficulty in access to health care questions. The dependent variables in this study included perceived general health status; use of needed health care and ease/difficulty in access to health care services.

Results/Discussion: Disparities exist and a key area to address is the lack of insurance or inconsistency of insurance coverage especially in minorities. Almost 10% of the children in the study population had a lapse of health insurance coverage during the previous 12 months. There was no significant difference between the unmet health care of those with public or private insurance. In addition, racial/ethnic disparities were found in the ease of access to preventive and dental services as well as care for an illness.

Conclusions and Relevance: Racial/ethnic disparities were found in the ease of access to preventive and dental services as well as care for an illnesss. It is positive that all parents, regardless of race, expressed that the medical provider communicated well about the child's health. Solutions to removal of barriers to care should look beyond the location and number or providers to the hours of operation to include evenings and weekends. Language services and acquistion of health insurance are also critical.

Keywords: race/ethnicity, health disparities, children, poverty, health insurance, unmet needs, perceived health status, medical care, dental care, prescriptions

INTRODUCTION

Although there is extensive literature on racial/ethnic disparities in access to health care and ease of using health care services, very little is directed towards children. Children's access to care and ease of using health care services is an important indicator for overall children's health. A number of studies noted that the most prevalent unmet health care needs include medical care, dental care, prescriptions, vision care and mental health care[2].Prior research also found that racial/ethnic minorities and uninsured children are more likely to report unmet health care need compared to Whites[1]. Monitoring unmet health care need is very important as it reveals the extent to which needed services are inaccessible or not accessed by children[3.] In combination with the health care system, a number of socioeconomic factors are associated with the health of our nation's children[3]. Our findings suggest that children are at greater risk of encountering difficulties with the health care system depending on their race/ethnicity, parents' education, and parents' employment status. The aim of this study was to examine racial/ethnic disparities in unmet medical care, dental care and prescription medications and ease of using heath care services.

METHODS

Source of data

The Center for Children's Health of Cook Children's Health Care System conducted the Community-wide Children's Health Assessment and Planning Survey (CCHAPS)[1] to collect data about perceived children's health in a six-county North Texas service region (Tarrant, Johnson, Hood, Parker, Wise and Denton Counties). The survey contained questions on perceived general health, insurance coverage, mental health, dental health, emotional and behavioral health, access to health care, safety/community surroundings, family activity and parental questions1.). Using a purchased mailing list pre-screened for households with children 0-14 years of age, addresses were selected at random to receive a survey. Only one parent per household was selected. To reduce the length of the survey, two versions of the survey were developed. A core set of the same questions was included on each version of the survey. Half of the sample received Version One of the survey and the other half of the sample received Version Two. The sample was stratified to ensure that the results for each county, the City of Fort Worth, the City of Arlington, and the City of Denton were statistically valid. The overall survey results were weighted to reflect the actual population of each county.

In 2012, a total of 8,439 parents completed the survey. The overall response rate of 2012 CCHAPS data was nearly 37%. The respondents with missing race/ethnicity were excluded from the study (N = 7790). In 2012, 3850 completed the version containing the health insurance type and unmet medical, prescription and dental health care and ease/difficulty in access to health care questions.

Study variables

The dependent variables in this study included perceived general health status; use of needed health care and ease/difficulty in access to health care services. The independent variables in this study included the child's race/ethnicity (Non-Hispanic White, Non-Hispanic

African American, and Hispanic), age (less than 1,1 to 5,6 to 10 and 11 to 14), gender, parental education (less than high school, high school graduates, some college, more than some college),household income (below 200% Federal Poverty Level(FPL) and at or above 200% FPL), whether the child had a primary doctor (yes/no), primary language spoken (English language-yes/no), insurance status (yes/no), insurance type (public/private), counties (Tarrant, Johnson, Hood, Parker, Wise, and Denton).

Characteristics of Survey Components

Insurance Coverage

We used the questions on health insurance to determine children's insurance status. Children were classified as insured if they were reported to be covered by CHIP, Medicaid, insurance provided by the legal guardian's employer, private insurance purchased directly by a parent or legal guardian, or insurance by the child's school. Children with CHIP and Medicaid were categorized as "publicly" insured whereas children covered by legal guardian's employer, private insurance purchased directly by a parent or legal guardian, or insurance by the child's school were categorized as "privately" insured. Children with no coverage from these sources were classified as "uninsured". It is important to note that regarding insurance, a question was asked about current coverage and whether or not the child had been without coverage at some point during the previous year. The question *during the past 12 months was there any time that this child was NOT covered by health insurance* was used to evaluate breaks in insurance coverage.

Measures of Access and Use of Care

We used the questions on access to health care to obtain information on the presence or absence of a primary doctor, usual source of care and preferred source of care. Two indicators were used for the child's primary doctor *[Does this child have a doctor that you would consider to be this child's primary doctor?]* and for receiving all needed health care [*During the past 12 months, did this child receive all medical, dental care and prescriptions that he/she needed?].*We classified children as having unmet medical care, dental care and prescriptions need if the child's parent/guardian reported that their child had not received all needed care for a given category.

Ease/Difficulty in access to health care.

We used the questions on ease/difficulty in access to health care using a scale of 1 to 5 where 5 mean "very easy" and 1 means "very difficult". For bivariate analysis, the responses were categorized as "easy" (i.e. 5 and 4) "and "difficult" (i.e. 1 and 2) and "neutral" (i.e. '3'). The responses were further dichotomized as "easy" (i.e. 5 and 4) "and "difficult" (i.e. 1, 2 and 3) for logistic regression analysis.

Statistical Analysis

All data analysis was conducted with SAS and SPSS. Analyses were restricted to White, American African, and Hispanic children. Children of "other" race (N=399) and those classified as "multiracial" (N=151) were excluded because of insufficient sample sizes. Children with both public/private insurance and other insurance type were excluded from the analysis because of insufficient sample size. Most of the results are presented in the form of simple bivariate comparisons to show the distribution of children in three racial/ethnic groups according to the age, gender, residence, parental education, household income, insurance status, type of insurance, lack of insurance coverage, having primary doctor, perceived health status, and child with specialized health care needs. However, because differences in the measures of access and

ease/difficulty in health care may be affected by variables other than race/ethnicity and insurance status, we also conducted multivariate analyses. These analyses used logistic-regression and linear regression techniques to control for the potentially confounding effects of the child's age, parental education, race/ethnicity, household income, region of residence, and perceived health status. The referent category for comparing racial/ethnic disparities was "White" children. Multiple logistic regression analyses were conducted to examine the association between race/ethnicity and each outcome after adjusting for relevant covariates.

RESULTS

Among CCHAPS 2012 children (N=7790), 70.76% were White, 7.15% were African American and 22.09% were Hispanic children with approximately same mean age among these race/ethnic groups 8.14, 7.44 and 7.9 years respectively. Compared to White (13.88%), African American (36.45%) and Hispanic (50.90%) were more likely to live below 200% federal poverty level. Hispanics (27.89%) are more likely to have parents who had not graduated from high school compared to White (0.96%) and African Americans (1.62%).Health insurance status also varied by race/ethnicity. Hispanics (10.39%) are by far the most likely to be uninsured, compared with African Americans (5.25%) and Whites (4.40%). Whites (9.18%) are much less likely to have public insurance compared to Hispanics (50.90%) and African Americans (36.45%). About 9.63% of CCHAPS children had not been covered by health insurance at some point during the past year. Minority children were more likely to be without coverage by health insurance and less likely to have a primary doctor compared to White children. Whites (90.87%) had best (meaning excellent) reported perceived general health status compared to African American (86.96%) and Hispanic (76.60%).There were relatively few disparities by race/ethnicity regarding how well the provider communicates about their child's health. Table 1 contains selected characteristics of the 2012 CCHAPS data by race/ethnicity.

Table 1: Selected Characteristics of 2012 CCHAPS data by Race/Ethnicity

	Total Sample (N= 7790)	White (N= 5512)	American African (N= 557)	Hispanic (N= 1721)	χ^2 P value
		Percentage (N)			
Child Characteristics					
Male Gender	4106	51.81(2853)	58.35(325)	53.95(928)	<0.0001
Mean Age	7790	8.14(5512)	7.44(557)	7.9(1721)	
Socio Economic Factors					
Parental education					
Less than High School	542	0.96(53)	1.62(9)	27.89(480)	<0.0001
High School Graduates	826	7.22(398)	15.98(89)	19.70(339)	
Some College	4578	64.31(3545)	59.43(331)	40.79(702)	
College Graduates	1790	27.01(1489)	21.90(122)	10.40(179)	
Household income					
Below 200 % FPL	1844	13.88(765)	36.45(203)	50.90(876)	<0.0001
At or Above 200 % FPL	4816	71.21(3925)	49.37(275)	35.79(616)	
Access to Care Factors					
NO Insurance	448	4.40(241)	5.25(29)	10.39(178)	<0.0001
Type of Insurance			***N= 3850***		
Public Insurance	696	9.18(247)	31.32(88)	43.86(361)	
Private Insurance	2856	85.70(2307)	65.48(184)	44.35(365)	
Uncovered by health insurance	745	6.78(371)	14.00(77)	17.36(297)	<0.0001
Primary doctor	7496	98.10(5374)	95.50(530)	93.05(1592)	<0.0001
Child's Health Status					
Perceived Health Status					
Excellent	6792	90.87(4996)	86.96(480)	76.60(1316)	<0.0001
Good	818	7.86(432)	10.69(59)	19.03(327)	
Poor	158	1.27(70)	2.36(13)	4.37(75)	
Specialized Health care need	1126	15.19(837)	15.44(86)	11.80(203)	<0.0001
Family Centered Factors					
Provider explains well about child's health	3746	97.50(2655)	98.34(296)	96.25(795)	<0.0001
Language other than Eng	7093	0.59(32)	1.84(10)	30.45(514)	<0.0001

[a*]: Whether the child had been uncovered by health insurance at some point
[b*]: Perceived general health status of child perceived by parents
[c*]: Of non-English interviews,98% were Spanish

Ease/difficulty in access to health care

From the initial respondents (N=7790), only respondents from the version containing questions on ease/difficulty in access to health care were analyzed which resulted in a sample of 3850. Table 2 shows disparities between racial/ethnic minorities and White children in most areas of access to care. Minority parents were significantly more likely than White parents to report that the health services (preventive care, immunization, short/long term illness care and dental care) were not easily accessible.

Table 2: Ease/difficulty in access to health care by Race/Ethnicity

	Total Sample Size	**White**	**American African**	**Hispanic**	**χ^2 P value**
Preventive care					<0.0001
Easy	3553	95.02	92.39	89.88	
Neutral	2.71	3.81	6.05	4.89	
Difficult	105	2.27	3.81	4.07	
Immunization					<0.0001
Easy	3590	96.49	92.04	92.06	
Neutral	91	1.79	2.42	4.47	
Difficult	90	1.72	5.54	3.47	
Short term illness					<0.0001
Easy	3557	95.83	92.17	90.09	
Neutral	116	5.5	2.85	5.08	
Difficult	98	1.68	4.98	4.83	
Long term illness					<0.0001
Easy	2403	89.26	87.67	85.93	
Neutral	190	7.39	5.48	6.27	
Difficult	125	3.35	6.85	7.8	
Dental care					<0.0001
Easy	3445	93.08	92.23	91.5	
Neutral	135	3.85	2.47	3.3	
Difficult	137	3.06	5.3	5.2	

Unmet Medical, Dental care and Prescriptions

Table 3 presents the bivariate analysis of unmet medical care, dental care and prescriptions by racial/ethnicity and health insurance coverage. Minority children were almost twice as likely to have unmet medical care and prescription needs compared to White children. A significantly greater percentage of African American children than Whites and Hispanics had unmet dental health care needs. Children with insurance were less likely to report unmet medical care, dental care and prescriptions compared to uninsured children. There is no significant difference between public and private insurance for unmet dental care and prescriptions.

Table 3: Bivariate analysis Unmet Health care by Race/Ethnicity and Health Insurance

	Unmet [c*] Medical Care (N= 250)		**Unmet [c*] Dental Care** (N= 856)		**Unmet [c*] Prescriptions** (N= 172)	
	%	P value	%	P value	%	P value
Race/Ethnicity						
White	2.47	<0.001	10.09	<0.001	1.79	<0.001
African American	4.49		17.03		3.31	
Hispanic	5.19		12.39		3.43	
Health Insurance						
Yes	2.18	<0.001	9.41	<0.001	1.7	<0.001
No	18.97		38.29		11.61	
Public [a*]	1.36	0.09	9.36	0.94	1.6	0.33
Private [b*]	3.48		10.78		2.7	

a*: Children with Medicaid or CHIP insurance

b*: Children covered by legal guardian's employer, private insurance purchased directly by a parent or legal guardian, insurance by the child's school**c*:** Children reported they have not received all the medical care, dental care, prescriptions medication that he/she needed.

Multivariate Analysis

Table 4 presents the relationship between race/ethnicity and unmet medical care, dental care and prescriptions adjusting for relevant covariates. When relevant covariates were not included in the model, minorities were more likely to report unmet medical care, dental care and prescription needs. However, in the adjusted model, no significant difference was observed between the race/ethnic groups.

Table 4: The relationship between Race/Ethnicity and Unmet Medical care , Dental care and Prescriptions

	Odds ratio (95% Confidence interval)of respective Unmet needs	
	Unadjusted	**Adjusted[a]**
Unmet Medical Care		
White[b]	*Referent*	*Referent*
African American	2.15(1.64 - 2.83)	1.11(0.66 - 1.87)
Hispanic	1.85(1.19 - 2.86)	0.80(0.56 - 1.14)
Unmet Dental Care		
White[b]	*Referent*	*Referent*
African American	1.82(1.44 - 2.32)	1.67(1.28 - 2.17)
Hispanic	1.26(1.06 - 1.49)	0.77(0.62 - 0.95)
Unmet Prescriptions		
White[b]	*Referent*	*Referent*
African American	1.88(1.13 – 3.14)	1.58(0.86 - 2.88)
Hispanic	1.95(1.40 - 2.71)	0.95(0.61 - 1.48)

a: Adjusted with age, region, health insurance, perceived general health status, household income, parental education.
b: This group was served as referent group with Odds Ratio = 1

DISCUSSION

This analysis supports current literature in acknowledging the challenges to assurance that children receive all the medical, dental, and pharmaceutical care needed. Disparities exist and a key area to address is the lack of insurance or inconsistency of insurance coverage especially in minorities. Almost 10% of the children in the study population had a lapse of health insurance coverage during the previous 12 months. There was no significant difference between the unmet health care of those with public or private insurance. Whether through the tangles of the public insurance system or the loss of benefits by a parent, the results are the same—the level of unmet need increases dramatically.

Racial/ethnic disparities were found in the ease of access to preventive and dental services as well as care for an illness. Solutions must continue to look not only at the location of services or the number of providers but also at the hours of operation and inclusion of night and weekend hours. Language barriers are critical and as we continue to stress the need for translation services or bilingual staff without much effect perhaps we also need to take a hard look at the language acquisition opportunities for those unable to speak English and the role of the patient navigator. It is positive however that all parents, regardless of race, expressed that the medical provider communicated well about the child's health. Insurance coverage and ease of use of the health care system for children is not without substantial cost; but without healthy children growing into healthy adults there is no future.

CONCLUSION

Racial/ethnic disparities were found in the ease of access to preventive and dental services as well as care for an illness. Solutions must continue to look not only at the location of services or the number of providers but also at the hours of operation and inclusion of night and weekend hours. Language barriers are critical and as we continue to stress the need for translation services or bilingual staff without much effect perhaps we also need to take a hard look at the language acquisition opportunities for those unable to speak English and the role of the patient navigator. It is positive however that all parents, regardless of race, expressed that the medical provider communicated well about the child's health. Insurance coverage and ease of use of the health care system for children is not without substantial cost; but without healthy children growing into healthy adults there is no future.

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