The 2005 Iowa Child and Family Household Health Survey. Racial and ethnic disparities in the health and well-being of Iowa children. Fifth report in a series

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Health Disparities Report

Results from the Iowa Child and Family Household Health Survey

Fifth report in a series

Public Policy Center
The University of Iowa

Iowa Department of Public Health

April 2009
The 2005 Iowa Child and Family Household Health Survey

Racial and ethnic disparities in the health and well-being of Iowa children

Fifth report in a series

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Introduction

In the United States, studies consistently find racial and ethnic disparities in health status and health care.¹ Information specific to disparities in child populations in Iowa can help provide state policymakers with the necessary background information in order to make evidence-based changes in the health and well-being of children and families in Iowa. This report presents the results of an evaluation of racial and ethnic disparities in the health status and health care use of children in Iowa. In this study, we present information collected for children in 4 different racial/ethnic categories: African-American (non-Hispanic), white (non-Hispanic), and two groups of Hispanic children—parents who chose an English interview (referred to as Hispanic-English Interview (HEI) throughout this report) and those who chose a Spanish language interview (called Hispanic-Spanish Interview (HSI) throughout). In this report, preference for completing the interview in Spanish was seen as a proxy for lower comfort with the English language and less acculturation into the United States.

The Iowa Child and Family Household Health Survey

The 2005 IHHS was the second comprehensive, statewide effort to evaluate the health status, access to health care, and social environment of children in families in Iowa. This is the fifth in a series of reports presenting results from the 2005 Iowa Child and Family Household Health Survey (IHHS), conducted in the fall of 2005 through the spring of 2006. The 2005 IHHS was collaboration between the Iowa Department of Public Health (IDPH), the University of Iowa Public Policy Center (PPC), and the Child Health Specialty Clinics (CHSC). Funding was provided primarily by the IDPH, with additional funding from the U.S. Department of Health and Human Services Maternal and Child Health Bureau (MCHB) and the Centers for Disease Control and Prevention (CDC).

The primary goals of the IHHS were to: 1) assess the health and well-being of children and families in Iowa, 2) assess a set of early childhood issues, 3) evaluate the health insurance coverage of children in Iowa, and 4) assess the health and well-being of racial and ethnic minority children in Iowa.

In this telephone-based interview, questions were asked from a wide range of topic areas encompassing health, overall well-being, and family environment. The 2005 survey included a special emphasis on nutrition, physical activity, and early childhood issues. Topic areas from the 2005 survey included:

¹ Institute of Medicine; Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care; National Academies Press, 2003
The goal of this study was to evaluate differences in health and well-being of Iowa children by race/ethnicity

Language chosen to complete the interview (English vs Spanish) was of primary interest

The intent of the study was to provide information for policymakers and health planners about the status of families with children in Iowa from a social health perspective.

**Methods**

The 2005 IHHS was conducted using population-based telephone interviews with a sample of over 3,600 families with children in Iowa with a targeted oversample of African-American and Hispanic children. The interview included approximately 180 questions, which varied based on the number of questions relevant to the family being interviewed (e.g., families with a child with asthma answered additional questions about asthma; families with young children answered extra questions about child care, etc). The questionnaire was developed by the research team after evaluating many existing survey instruments including the National Survey of American Families (NSAF), and the National Health Interview Survey (NHIS).²³

The University of Northern Iowa (UNI) Center for Social and Behavioral Research conducted the data collection for the survey, following review by the UNI Human Subjects Review Board. Phone numbers dialed included a combination of random

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²http://newfederalism.urban.org/nsaf
³http://www.cdc.gov/nchs/nhis.htm
digit dial (22%) and phone numbers targeted toward families (78%), and were obtained from a private vendor. Targeted lists came from a variety of resources, including white pages and other lists (e.g., voter registration, magazine subscriptions, warranty cards). Screening questions were asked to determine if the number was connected to a private residence, and if so, if there was at least one child living in the household. The survey questions were answered by the ‘adult most knowledgeable about the health and well-being’ of one randomly selected child in the household, and the questions were asked about that child.

Interviews were completed with the parents of 3,669 children throughout the state of Iowa. Population-based sampling methods garnered a small number of interviews regarding Hispanic (79) or African-American (25) children. In order to increase reliability of statistical calculations, an additional sample targeted toward parents of racial or ethnic minority children was used. 331 parents of children from a targeted telephone sample who were identified by a parent as African-American (170) or Hispanic (161) were added to the original sample for the purposes of this health disparities study. Two Spanish-speaking interviewers conducted the telephone surveys in Spanish for 105 families who chose to do the interviews in Spanish.

There are a number of different ways to identify racial and ethnic groups. In this study, each child’s race/ethnicity was classified based on the parent’s response to several questions that were similar to those used in the 2000 US Census. These questions were designed to partially distinguish between race and ethnicity, especially for children of Hispanic origin. Parents were able to select more than one race category for their child. Questions used in this study are as follows:

Question 1: Is your child of Spanish or Hispanic origin? [Yes/No]

Question 2: What is your child’s race (check all that apply)? [African-American, White, American-Indian/Native American/Aleutian or Eskimo, Asian/Pacific Islander, Other (specify)]

For the purposes of this study, children who were identified as of Hispanic ethnicity and one racial identification category were considered Hispanic, regardless of racial identification. Children who were identified as having more than one race, whether or not they were also identified as of Hispanic ethnicity, were excluded from this study because there weren’t enough children in any multiple-racial/ethnic grouping for meaningful analysis. Table 1 shows the number of children for whom data were
collected, by ethnic and racial classification:

<table>
<thead>
<tr>
<th>Race/Interview Type</th>
<th>Original Sample</th>
<th>Over-sample</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hispanic – English Interview (HEI)</td>
<td>79</td>
<td>56</td>
<td>135</td>
</tr>
<tr>
<td>Hispanic – Spanish Interview (HSI)</td>
<td>NA</td>
<td>105</td>
<td>105</td>
</tr>
<tr>
<td>African-American</td>
<td>25</td>
<td>170</td>
<td>195</td>
</tr>
<tr>
<td>White</td>
<td>3428</td>
<td>NA</td>
<td>3428</td>
</tr>
<tr>
<td>Total included in this report</td>
<td>3532</td>
<td>331</td>
<td>3863</td>
</tr>
<tr>
<td>Asian</td>
<td>25</td>
<td>NA</td>
<td>25</td>
</tr>
<tr>
<td>American Indian</td>
<td>5</td>
<td>NA</td>
<td>5</td>
</tr>
<tr>
<td>Other</td>
<td>20</td>
<td>NA</td>
<td>20</td>
</tr>
<tr>
<td>Multiple races</td>
<td>87</td>
<td>71</td>
<td>158</td>
</tr>
<tr>
<td>Total interviews collected</td>
<td>3669</td>
<td>402</td>
<td>4071</td>
</tr>
</tbody>
</table>

Respondents were primarily mothers (75%) and fathers (20%). The other 5% of respondents included grandmothers (2%), step-parents (2%), and 1% other relatives, foster parents, or unrelated guardians. Because most of the respondents were either a mother or a father, respondents will be referred to as ‘parents’ throughout this report.

Comparisons were made in order to identify where disparities exist between different racial and ethnic groups. For this report, results are presented for children who were identified by their parents as African-American, HEI (Hispanic – English Interview), HSI (Hispanic – Spanish Interview), or white. These groups were compared on several factors, including:

- Demographics
- Health status
- Health insurance coverage of children and parents
- Access to health care
- Family and social environment
Health Status

Ninety one percent of white children had an overall health status rating of ‘excellent’ or ‘very good’ compared to 77% of African-American children. Among Hispanic children, 74% of HEI children had an overall health status rating of ‘excellent’ or ‘very good’ compared to 50% of HSI children (Figure 1).

Over one-of-four African-American children (26%) in Iowa were reported to have a special health care need as defined by the CAHMI children with special health care needs screening tool. In contrast, 8% of HSI children were reported to have a special health care need, followed by HEI children (13%), and white children (19%).

In this study, asthma was chosen as a chronic health condition of emphasis. About one-of-four African-American children (23%) have been diagnosed with asthma at some time in their life. In contrast, only 4% of HSI children, have been diagnosed with asthma, followed by HEI children (7%), and white children (9%) (Figure 2).

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Almost a quarter of the African-American children were reported to have asthma.

Almost one-third of HSI children were uninsured.

Figure 2. Asthma prevalence among children

Health Insurance Coverage

Children’s health insurance coverage

About one-in-three HSI children (29%) did not have insurance at the time of the survey (Figure 3). This compares to about 10% of HEI children that did not have insurance, followed by African-American children (5%), and white children (2%). Among those who had insurance, there were 14% of HSI children who were without insurance at some point in the previous 12 months, followed by African-American children (4%), and HEI and white children (3%). Public insurance program participation also varied across the groups. About half of African-American children (52%) were enrolled in the Medicaid or hawk-i programs as compared to one-third of HSI children (38%), one in five HEI children (20%), and one in eleven white children (9%).
On the other hand, private insurance program participation had a different distribution across the groups. About nine out of ten white children (89%) had private health insurance, followed by seven in ten HEI children (71%). Less than half of African-American children (44%) participated in private insurance programs, followed by one-third of HSI children (32%).

Among families with insurance, parents of HSI children were least satisfied with their health insurance. They had the lowest proportion rating their coverage as excellent or very good (34%) and the highest proportion rating it fair or poor (21%). Almost all respondents across the groups indicated that they believed that it was very important for children to have health insurance (African-American: 99%, HEI: 96%, HSI: 92%, and white: 98%).

Questions were asked about awareness of Iowa’s Children’s Health Insurance Program, called hawk-i. About one-of-three parents of HSI children (35%) had heard of hawk-i. In contrast, about three-of-four respondents in the other groups indicated that they had heard of hawk-i (African American: 78%, HEI: 74%, and white: 72%) (Figure 4).

**Figure 3. Children’s health insurance coverage**

Half of African-American children were enrolled in a public insurance program (Medicaid or hawk-i)
Parent’s Health Insurance Coverage

Among the parents of the children, almost two-thirds of the parents of HSI children (65%) were uninsured (Figure 5). In contrast, 18% of parents of African-American and HEI children were uninsured followed by 6% of the parents of white children. As for the type of insurance, parents of more than nine-of-ten white children (92%) had private insurance followed by 72% of parents of HEI children, 50% of parents of African-American children, and 33% of parents of HSI children. Parents of African-American children were most likely to be enrolled in a public insurance program (32%).

Figure 4. Parents’ awareness of Iowa’s Children’s Health Insurance Program hawk-i

Figure 5. Adults’ health insurance coverage

Only one-third of HSI parents had ever heard of hawk-i

Two-thirds of HSI parents were uninsured
Health Care Issues

Medical Care and Access to Health Care

Questions were asked about access to medical care among children. About one-in-three HSI children (37%) did not have a personal doctor or nurse. In contrast, 6% of white children did not have a personal doctor or nurse followed by 14% of African-American and HEI children. Similarly, unmet need for medical care was much higher among HSI children with almost one-third (31%) having needed medical care but could not get it in the last 12 months. Unmet need for medical care was not an issue for the other groups with none of the African-American children or HEI children, and 1% of white children having needed medical care but could not get it in the last 12 months.

Preventive Care

Prevention was less of a problem for HSI children however. More than four-of-five children across all groups had preventive care such as a checkup or vaccination shots in the previous 12 months (African-American: 90%, HEI: 81%, HSI: 85%, and white: 81%). Also, the vast majority of children across all group had routine preventive care when they needed it in the previous 12 months (African-American: 98%, Hispanic-English: 99%, Hispanic-Spanish: 96%, and white: 100%). HSI children were also most likely to have received anticipatory guidance (preventive counseling) from health providers, with the parents of half of the HSI children (51%) having received anticipatory guidance in the past 12 months, followed by 30% of white, and 29% of African-American and HEI children.

Dental Care

A question was asked about the child’s overall dental health status. Similar to overall health status, HSI children has the lowest oral health status with one-fourth of the HSI children (24%) reported to have ‘fair’ or ‘poor’ overall dental health (Figure 6). In contrast, less than one-in-twelve children across other groups had ‘fair’ or ‘poor’ overall dental health (Hispanic-English: 6%, African-American: 7%, and white: 4%).
As with medical insurance, HSI children were most likely to be without dental insurance (34%), compared to 20% of white and HEI, and 10% African-American children (Figure 7).

**Figure 6. Overall dental health status (very good and excellent)**

**Figure 7. Children dental insurance coverage**
Sixteen percent of HSI children needed dental care but could not get it for some reason (unmet need). In contrast, less than one in twelve children across all other groups needed dental care but could not get it (HEI: 8%, African-American: 6%, and white: 3%). HSI children were also least likely to have a regular source of dental care or seek regular dental care. Seventy percent of HSI children had one main place to go for dental care compared to 78% of HEI children, 81% of African-American children and 93% of white children. Less than half of HSI children (42%) go to the dentist regularly (once/year) followed by 65% of African-American children, 67% of HEI, and 78% of white children (Figure 8).

![Figure 8. Children who have regular (once/year) dental care visits](image)

However, more than four-of-five HSI children (82%) brushed their teeth twice or more times per day followed by 72% of African-American children, 68% of HEI children, and 65% of white children.
Emotional and Behavioral Health

Fewer HSI children (4%) needed care for emotional and behavioral health than any other group (white: 7%, African-American: 8%, and HEI: 11%) during the previous 12 months.

In order to better understand the behavioral and emotional health status of children, respondents were asked a series of six questions. The responses were then combined for analysis as a scale score of the behavioral and emotional health of children. These questions were only asked of parents of 6-17 year old children. There was a core set of three questions, plus another three items in each of two age groups pertaining more specifically to children in those groups (ages 6-11 and 12-17). Questions included how often during the past month the child: didn’t get along with other kids; couldn’t concentrate or pay attention for long; was unhappy, sad, or depressed.

Parents of 6-11 year old children were also asked how often during the past month the child: felt worthless or inferior; was high-strung or tense; acted too young for his or her age. Parents of 12-17 year olds were asked how often during the past month the child: had trouble sleeping; lied or cheated; did poorly at schoolwork.

After scoring these items together, 9% of African-American children and 8% of HSI children, scored as having a high level of behavior problems, followed by the other two groups 6% HEI children and 5% of white children.

Lifestyle and Behavior

Child’s weight

Parents’ perception of their child’s weight status differed by race. African-American children (66%) had parents who were least likely to report that their child weighed “the right amount” as compared to more than seven out of ten Hispanic and white children (HEI: 72%, HSI: 75%, and white: 77%). Parent-reported height and weight were collected in an attempt to calculate children’s Body Mass Index (BMI), a common measure of a person’s appropriate weight. However, parent-reported heights and weights appeared inconsistent with measured norms and could not be used for these analyses.

Physical Activity

HSI children were most likely to be moderately or vigorously active. About two-thirds of HSI children (64%) did moderate activities everyday for at least 30
minutes in the previous week. In contrast, 47% of HEI and African-American children did moderate activities for at least 30 minutes followed by white children (36%). When asked about how many days the child did vigorous activities for at least 20 minutes, about one-third of HSI children (35%) did vigorous activities everyday last week followed by African-American (22%), HEI (19%), and white (10%) children. One in five HSI children (21%), however, did not do any vigorous activities at all in the previous week (white: 15%; HEI: 14%, and African-American: 14%).

**Overall eating patterns**

A scale was constructed using 4 items of the questionnaire to evaluate the adequacy of the child’s eating patterns. This scale measured whether children met standard dietary guidelines for the following factors: 1) always ate breakfast, 2) ate 2 fruit servings daily, 3) ate 3 vegetable servings daily, and 4) did not drink any soda. Factors were each dichotomized (0 = didn’t meet recommendation, 1 = met recommendation) and then summed to create a 5-point scale (0-4). The proportion meeting all dietary guidelines was low for all groups with no significant difference by racial/ethnic groups. The overall mean was 2.26, (standard deviation 1.13) (African-American mean: 2.07, HEI mean: 2.25, HSI mean: 2.41, and white mean: 2.27). About one-in-ten HSI children (10%), met all four criteria followed by 11% of African-American, 13% of white, and 15% of HEI children. On the other hand, 3% of HSI children did not meet any of four criteria followed by 8% of white and HEI children, and 9% of African-American children.

**Parenting Stress**

Parenting stress was defined using 16-items and scaled using standardized criteria for symptoms suggesting levels of parenting stress. About four-fifths of the parents of African-American children (81%) reported moderate or high parenting stress followed by 76% of white and HEI parents who reported moderate or high parenting stress. In contrast, just more than half of HSI parents (54%) reported moderate or high parenting stress (Figure 9).
African-American children reportedly spent the most time in front of a screen (e.g., TV, video games, computer) during the week.

**Screen Time**

Parents in this study were asked “On an average day, about how many hours does your child usually watch TV, video, or movies?” and “On an average day, about how many hours does your child use a computer or play video games for school, work, or play?” African-American children had the highest mean values for both types of screen time measures (TV: 2.83 and computer use: 1.42 hours) (Figure 10). HEI children had the second highest mean value for TV (TV: 1.96 and computer use: 0.84 hours) followed by white children (TV: 1.74 and computer use: 0.86 hours). HSI children had the lowest mean value for both screen time (TV: 1.72 and computer use: 0.29 hours).
Household and Parents’ Characteristics

The vast majority of households had three children or less, with 40% of African-American children being the only child in the household (Figure 11). The federal percent poverty varied significantly across groups. Three-fourth of HSI households (75%) qualified as 200% or less of the federal poverty level (FPL) followed by the households of African-American (54%), HEI (21%) and white (12%) children (Figure 12).

![Figure 11. Number of children in the household](image)

The age of randomly chosen children about whom the interview was conducted tended to be younger for the Hispanic groups. About one-third of the Hispanic children (HSI: 37% and HEI: 33%) were 4 years or younger compared to approximately one-fourth of white (27%) and African-American (25%) children (Figure 13).
When asked about the marital status of the child’s parents, slightly more than one-half of African-American parents (51%) were married. In contrast, about four-fifths of other parents reported being married (HSI: 80%, HEI: 87%, and white: 91%) (Figure 14).
Parents’ educational attainment was significantly lower in HSI parents with about one-half of HSI parents (50%) reported 8th grade or less of schooling (Figure 15).
Conclusions

There were several significant health disparities found between children from different racial/ethnic backgrounds. The most salient differences for health status and access to care issues were for children of parents who chose to complete the interview in Spanish (HSI children). We are attributing interest in completing the interview in Spanish with less English language skills and less knowledge/acculturation with the Iowa or US health care system.

Overall, HSI children were more likely to report barriers to accessing medical and dental care. Also, HSI children had the lowest overall health and oral health status but fewer children categorized as having a special health care need. They were less likely to be thought to need medical care. They were significantly more likely to be uninsured and rated their insurance lower if they had coverage. Language/acculturation also seemed to be a factor in the lower level of awareness of Iowa’s Children’s Health Insurance Program, called hawk-i among HSI parents.

On the other hand, HSI children were more likely to have healthier habits such as more physical activity and less screen time. They were also more likely to report having received anticipatory guidance and were less likely to have behavioral problems.

African-American children were most likely to have public insurance coverage, to have dental insurance, be in a household with the highest levels of parenting stress and the highest single parent household rate, and the highest rates of asthma. They were least likely to be reported to have the correct weight.

While studying health disparities among Iowa children is important, these results should be interpreted carefully because children were grouped by race/ethnicity and not by other factors that could influence these outcomes such as poverty, geographic region or available health care resources and thus do not answer why they are occurring (purely associations). Important questions remain such as:

- the implications of language choice of the parent for completing the interview
- the influence of the health care system
- cultural issues in care seeking behavior
- cultural issues in responding to the interview
- social environmental factors

Overall, the race/ethnicity of Iowa children was associated with a number of poorer outcomes that should be of concern to policymakers and for which further study and action is warranted to make sure all Iowa children have the same chance of growing up successfully and healthfully.
This report is the fifth in a series presenting the results from the 2005 Iowa Child and Family Household Health Survey (IHHS). The 2005 IHHS is the second comprehensive statewide survey with the primary goals of: 1) assessing the health and well-being of children and families in Iowa, 2) assessing a set of early childhood issues, 3) evaluating the health insurance coverage of children in Iowa, and 4) assessing the health and well-being of racial and ethnic minority children in Iowa. The 2005 IHHS was a collaboration between the Iowa Department of Public Health (IDPH), the University of Iowa Public Policy Center (PPC), and the Child Health Specialty Clinics (CHSC). Funding was provided primarily by the IDPH, with additional funding from the U.S. Department of Health and Human Services Maternal and Child Health Bureau (MCHB) and the Centers for Disease Control and Prevention (CDC).

Researchers at the University of Iowa Public Policy Center, in collaboration with the Iowa Department of Public Health, developed the survey instrument, completed the data analysis, and produced this report. The telephone surveys were conducted by the University of Northern Iowa Center for Social and Behavioral Research. For more information, contact the Iowa Department of Public Health, Family Services Bureau, 321 E. 12th St., Des Moines, IA 50319, 515-281-7613, or the Public Policy Center at the University of Iowa, 209 South Quadrangle, Iowa City, IA 52242, 1-800-710-8891.