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Oral Health in Children in Iowa: An Overview From the 2010 Iowa Child and Family Household Health Survey

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December 2012

Oral Health in Children in Iowa

An Overview From the 2010 Iowa Child and Family Household Health Survey

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Background

Oral health is an important but sometimes overlooked component of total health. At the request of the Bureau of Oral and Health Delivery Systems, housed at the Iowa Department of Public Health, oral health was included as an area of emphasis for the 2010 Iowa Child and Family Household Health Survey (IHHS). The 2010 IHHS sought to explore issues such as utilization of oral health services, dental insurance coverage, and self perceived oral health status.

The results in this brief represent information for the 820,000 children in Iowa (based on 2010 Census). Children account for about 25% of Iowa's population. Iowa's proportion of children is similar to that of the US as a whole (26%).

The IHHS is a collaborative effort of the Iowa Department of Public Health, the University of Iowa Public Policy Center, and the Iowa Child Health Specialty Clinics to study the health and well being of children and families in the state.

This data for the 2010 survey, the third IHHS since 2000, was collected in the fall of 2010 through spring of 2011. Iowa families were asked over 165 questions regarding a randomly-selected child in the household about the following topic areas in addition to oral health: functional health status; insurance coverage; access/need; medical home; prescription medication; behavioral and emotional health care; child behavioral and emotional health; early childhood; child care; school; social determinants of health; nutrition; physical activity; parent health status/family health; substance use and gambling; and demographics.

This policy brief provides statewide results about a series of issues from the IHHS related to the oral health of children and adolescents ages 0-17 years in Iowa. An overview of the results is presented in this report; many other noteworthy statistics can be found in the tables accompanying the report.

Methods

The survey utilized an address-based sampling design. Data collection was completed using mixed-mode telephone and Internet survey methods. A packet was mailed to a statewide random sample of addresses drawn from the United States Postal Service (USPS) Delivery Sequence File (DSF). This file also listed telephone numbers for about 60% of addresses. The packet included an information letter with instructions for completing a web-based questionnaire and information indicating that we would call if the web mode were not accessed within the next week. The University of Northern Iowa Center for Social and Behavioral Research coordinated the data collection efforts.

During the core data collection period, 1,859 phone and 527 online interviews took place with the parent or guardian of one randomly selected child age 0-18 living in the household. Respondents were primarily mothers (78%), although 16% were fathers. The data were weighted to account for family size and post-stratified to reflect the 2010

child population in Iowa. Included in this report are results for children/adolescents ages 0-17 in Iowa and their parents.

Bivariate analyses were conducted for the oral health-related issues in the survey to determine if there were differences by the following factors: age of the child, race/ethnicity, federal poverty level, dental insurance status, and whether the child had a special health care need.

There were almost equal numbers of boys (51%) and girls (49%) in the sample. The age distribution of the children in the sample is shown in the Table 1.

Table 1. Demographic characteristics for children and their families from whom data were collected (weighted sample)

Child age	**Percentage**
0-4 years	27.8%
5-9 years	27.6%
10-14 years	27.6%
15-17 years	17.1%
Sex	
Female	48.7%
Federal Poverty Level (FPL) status	
<134%FPL	11.7%
134-199% FPL	15.9%
200+% FPL	72.4%
Child race	
African-American (non-Hispanic)	4.7%
White (non-Hispanic)	92.2%
Ethnicity	
Spanish/Hispanic	6.5%

*Total is less than sample because of missing data

Oral health Status

Children in Iowa were reported to be in generally good oral health. Their oral health, however, was rated lower than their overall physical health (Figure 1).

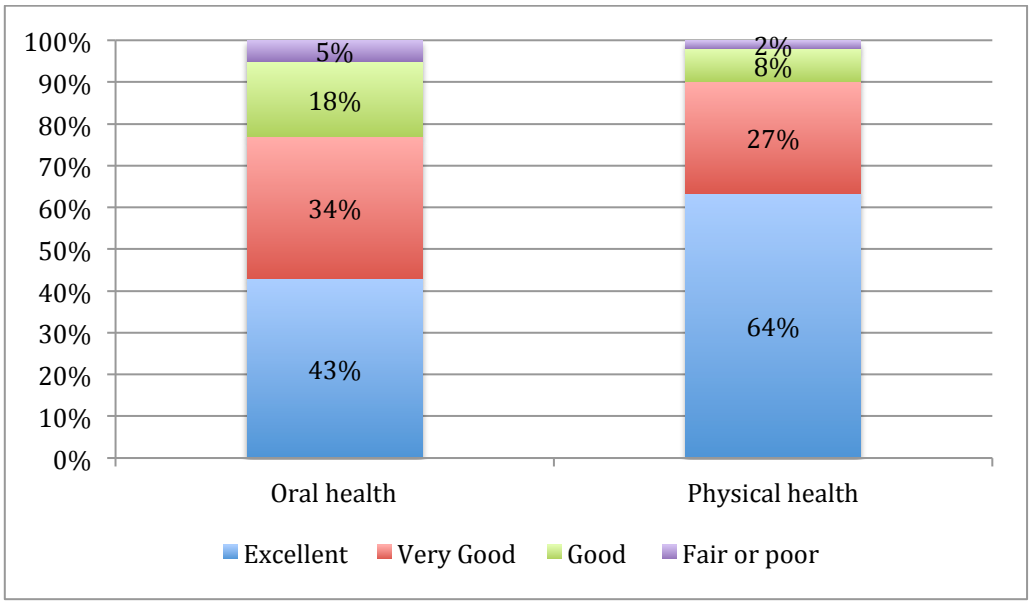


Figure 1. Oral health status as compared to physical health (parent report)

When evaluated by Federal Poverty Level status (FPL), there was great disparity in reported oral health status, with lower income children reported to have significantly poorer oral health (Figure 2).

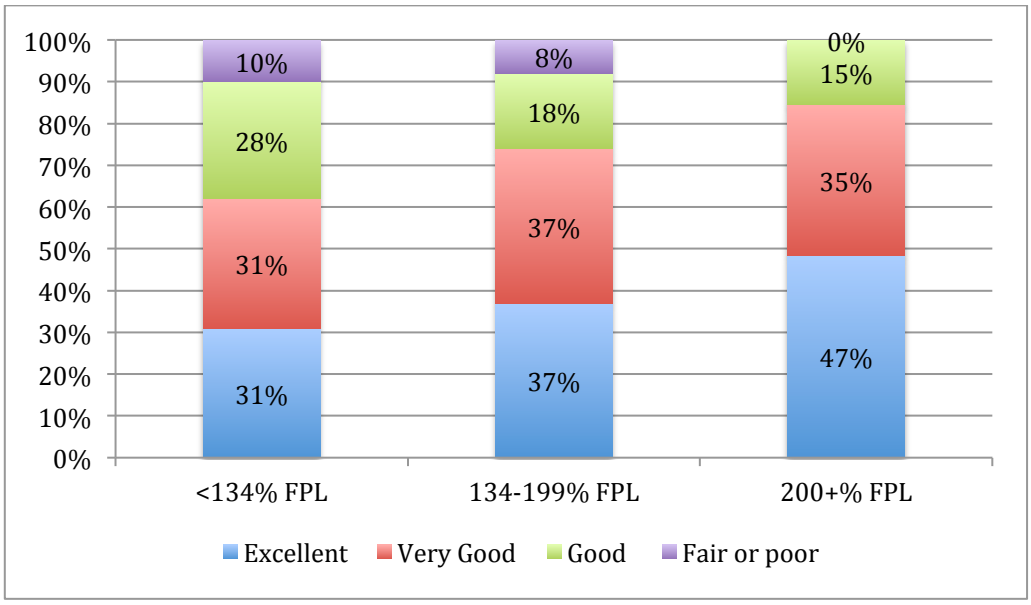


Figure 2. Oral health status of children in Iowa by poverty level (parent report)

A disparity was also evident for children who were Hispanic or who had a special health care need (CSHCN). Twenty-five percent of Hispanic children were in excellent oral health, compared to 44% of white children, and 40% of African American children. Thirty-five percent of CSHCN were reported to be in excellent oral health.

Dental Insurance Coverage

Children in Iowa had a higher likelihood of being uninsured dentally than medically. About one out of five children (18%) were without dental insurance at the time of the call, compared to about 3% without medical insurance. Lower income children were more likely to have dental insurance (89%) than higher income children (82%) as a result of dental insurance being a mandatory part of Medicaid and the Children's Health Insurance Program (CHIP—called ***hawk-i*** in Iowa).

There were no uninsured African-American children in our sample, however, 19% of white teens and 17% of Hispanic teens had no dental insurance. Children with special health care needs were more likely to have dental insurance, again because they were more likely to qualify for Medicaid with mandatory dental coverage for children.

Children without dental insurance were:

- Less likely to have needed dental care in the past year (68% vs. 81%)
    - Among those with need, they were equally as likely to have needed a check-up, fillings or emergency care as those with insurance
- Significantly more likely to have had an unmet need (11% vs. 3%); the most reason given for this was cost (84%).
- Less likely to have a usual source of care (82% vs. 93%) and more likely to receive care in a clinic rather than a private dental office
- Significantly less likely to have had a check-up by a dentist in the previous year (79% vs. 91%)
- Less able to get care as soon as wanted for child

Dental Home

Having a regular source of care is an important characteristic of a dental home, as it is for a medical home. Nine out of ten children had one main place that they went to receive their dental care. CSHCN (97%), African American children (95%) and children with dental insurance (93%) were most likely to report a regular source of dental care. The type of location varied by income, with lower income children significantly more likely to receive their dental care from a community health center or clinic (Figure 3).

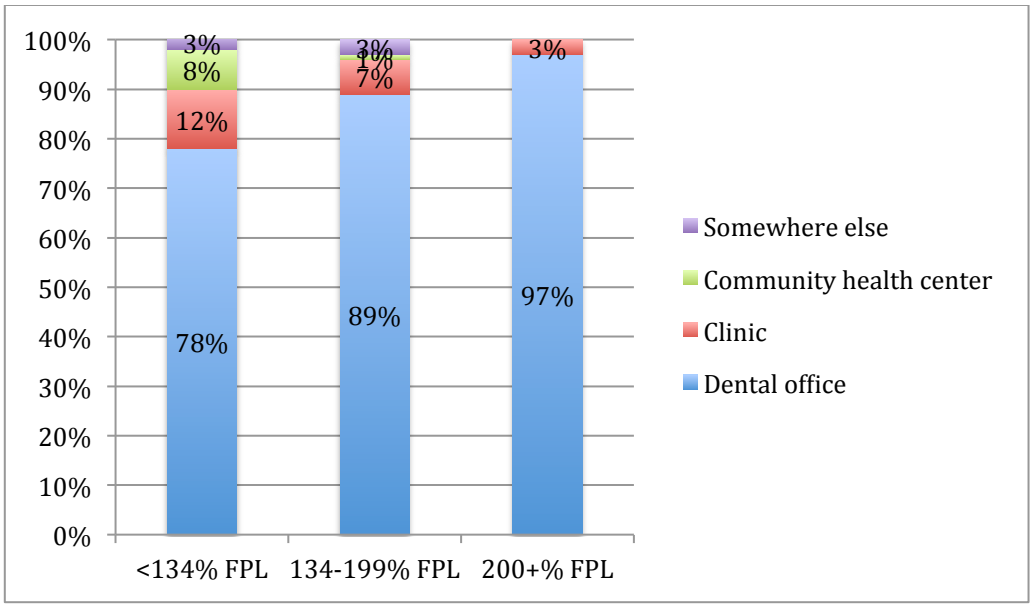


Figure 3. Main place for dental care, by FPL status

Location of the child's dental home also varied by race/ethnicity with Hispanic children being most likely to have their dental home be a Community Health Center or Clinic (Figure 4).

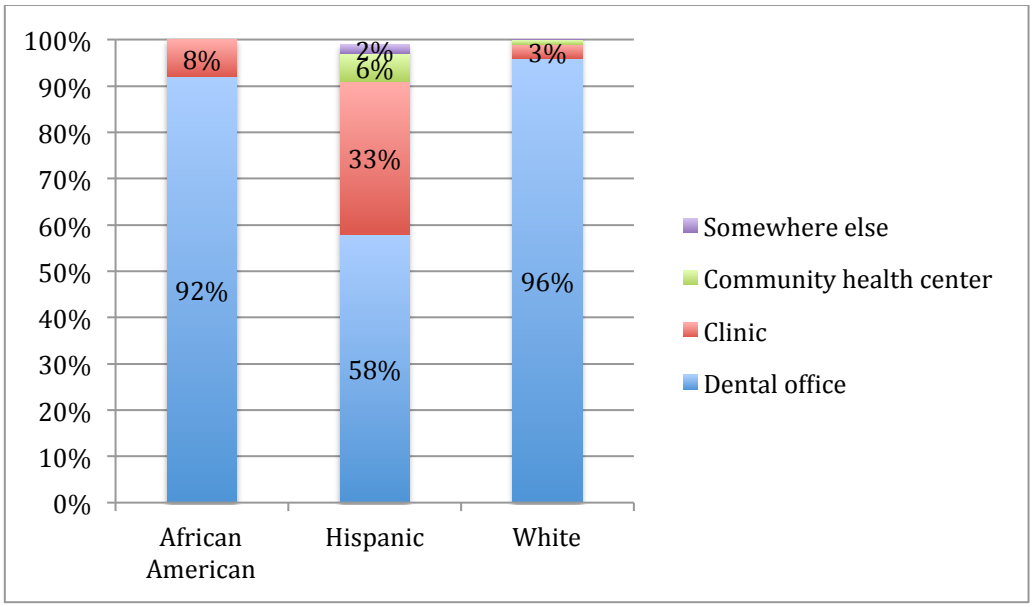


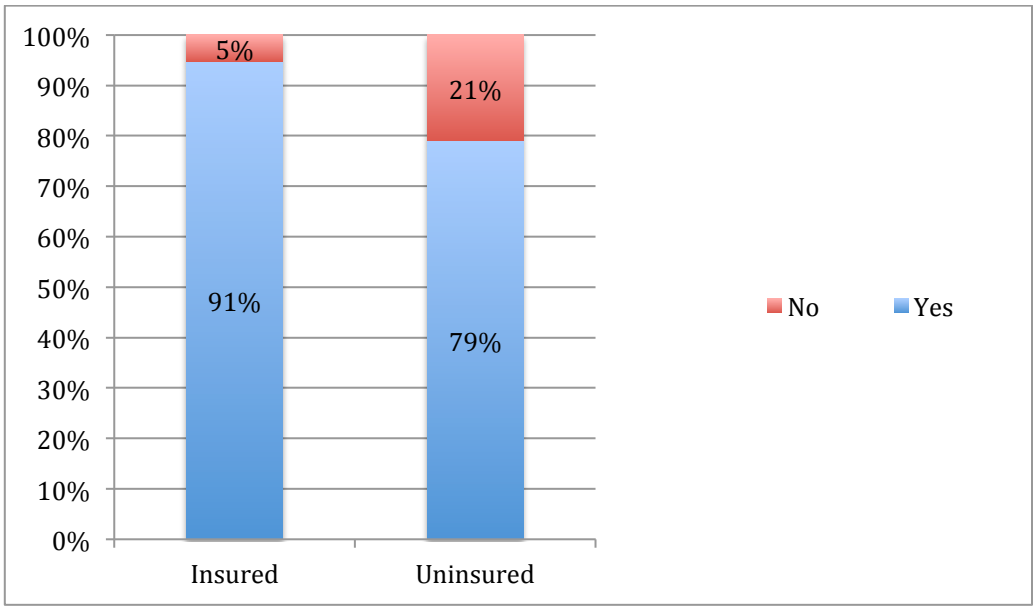
Figure 4. Main place for dental care, by Race/Ethnicity

Low income children were also more likely to receive dental care services from other alternative care delivery sites, such as a WIC clinic (9% of low-income children under age 6), Head Start Center (24% of low-income children under age 6), Schools (17% of children age 5+) or Preschools (26% of children under age 6).

Access/Need/Use of Oral Health Care

About 8 out of 10 Iowa children (78%) were reported to have needed dental care in the previous year (higher than medical care—57%). CSHCN were more likely than other children to need dental care (87%). Among all children, most needed a check-up/cleaning (95%), one in four needed fillings (24%) and 3% needed emergency care.

Utilization of dental services was reported to be very high by the parents. Nine out of 10 children were reported to have had a dental check-up in the previous year. Among children who had ever been to the dentist, uninsured children were less likely to have had a check-up than those with insurance (Figure 5). Young children under age 4 were least likely to have had a visit, while CSHCN were most likely to have had a check-up (94%).



Note: this is among children who had ever been to the dentist

Figure 5. Proportion of children reported to have had a dental check-up in the previous year

Four percent of children statewide had a time in the last 12 months when they were stopped from getting dental care for some reason (same percent as for medical care). However, for children living below 133% FPL, one out of 10 had an unmet need for dental care, as compared to 3% of upper income children. Cost was the most important factor for the unmet need (63%). African American children, although most likely to have dental insurance, were also most likely to have had an unmet need, with 1 out of 5 children having been stopped from getting dental care in the past year, as compared to 8% of Hispanic children and 3% of white children.

Lower income children and were less likely to have received care as soon as the parents thought their child needed it (Figure 6). African American and Hispanic children and CSHCN were also more likely to have faced delays in getting needed care.

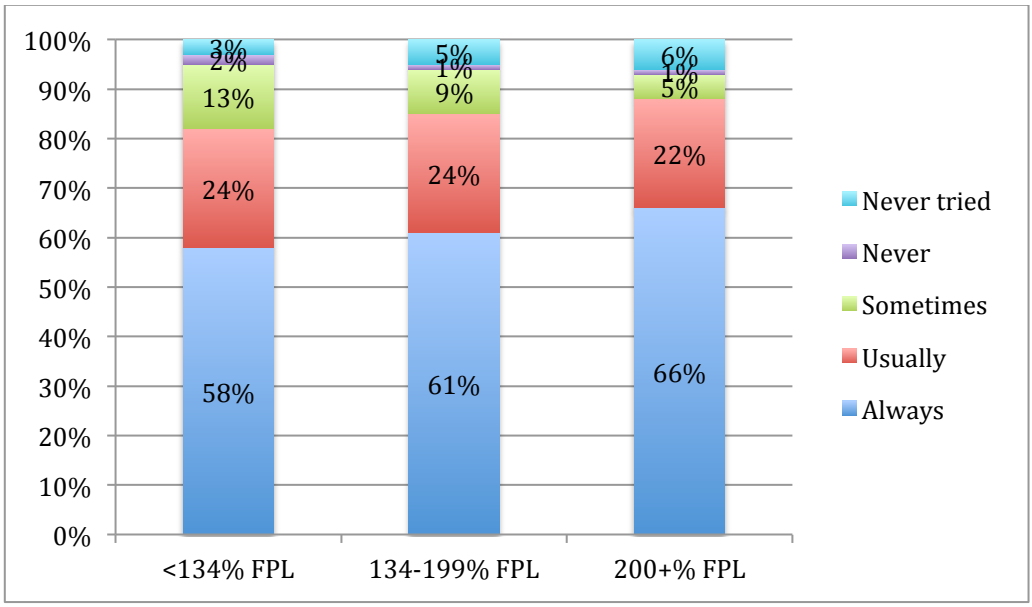


Figure 6. How often received dental care for child as soon as wanted

Summary and discussion

Overall, oral health status and access to dental care for children in Iowa is very good. As with medical care, however, disparities exist for certain populations in the state. Low-income children, although more likely to have dental insurance, were also reported to have a lower oral health status, were most likely to have an unmet need for dental care and most likely to have had delays in getting needed care. There were some disparities for minority children as well. African American children were well covered in terms of dental insurance, with most having a regular source of care; they were also, however, the racial/ethnic group most likely to have had an unmet need for care (one in five), as well as delays in getting care. Hispanic children were reported to be in the lowest oral health state and also had a high rate of delay in getting care.

These disparities are likely due in part to the fact that lower income and minority children are more likely to have public dental insurance through Medicaid. Although Medicaid covers dental care, enrollees may still have problems finding a dentist who will accept Medicaid insurance and/or may be unable to get an appointment in a timely manner. While most children in Iowa visit a dental office for most of their care, many lower income Iowans access services from community health centers or clinics. Lower income children were also more likely to receive dental services from schools, preschools, WIC clinics, and Head Start centers. These alternative locations provide

additional opportunities to locate and detect oral health problems sooner, however, they can make it more difficult to provide continuous or comprehensive care.

Insurance coverage, both public and private, was generally beneficial, even though the uninsured tended to be higher income. Those without insurance had less reported need, more unmet need, were less likely to have a regular source of care, and less likely to have had a check-up in the previous year.

Parents reported very high rates of Iowa children having had a dental check-up in the previous year (over 90%). This rate could be the result of several factors: 1) self reported rates are always higher than rates from more objective sources like insurance claims data,[1] and 2) parents can sometimes be confused about what constitutes a dental check-up.[2] Parents may believe that a screening by a public health hygienist constitutes a dental check-up.

As with all research, this survey has many limitations. A major issue is that our results are parent-reported. The children themselves were not interviewed, and there is evidence in the literature that their answers would have differed from the responses garnered from parents. Indeed, the questionnaire was entirely designed based on parent report, and many questions relevant to the children themselves were not asked.

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[1] Damiano PC, Momany ET, Crall JJ. " Determining Dental Utilization Rates for Children: An Analysis of Data from the Iowa Medicaid and SCHIP Programs." *Journal of Public Health Dentistry* 66(2)97-103, Spring 2006.

[2] Askelson, N; Chi, D; Hanson, J; Ortiz, C; Momany, E; Kuthy, R; Damiano, P. Perceptions and experiences of dental care among parents of preschool-aged children enrolled in Medicaid " Submitted to the Journal of Special Care Dentistry. Under review.

Appendix

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Note:
The level of significance in the appendix tables was first assessed using the Chi-square test (X^2 p). However, when the count in cells was less than 5, the level of significance was assessed using the Fisher exact test (FISHER p) or Montecarlo method to obtain an approximation to the Fisher exact test (Montecarlo FISHER p).

ORAL HEALTH by age

DX1 - Does CHILD currently have insurance that covers dental care?
(Sample n = 2,365; $\mathbf{X^2}$ p=0.041).

	0 to 3 years	4 to 9 years	10 to 14 years	14 to 17 years	Total %
Yes	78.1	82.4	85.6	81.8	82.2
No	21.9	17.6	14.4	18.2	17.8

DX2 - During the last 12 months, was there any time when you or a HP thought CHILD needed dental care (including routine care/checkups)? [Asked if age 1+]
(Sample n = 2,267; $\mathbf{X^2}$ p=0.000).

	0 to 3 years	4 to 9 years	10 to 14 years	14 to 17 years	Total %
Yes	36.4	85.3	89.7	86.7	78.2
No	63.6	14.7	10.3	13.3	21.8

DX3_1 - Needed check-up or cleaning? (Sample n = 1,819).

	0 to 3 years	4 to 9 years	10 to 14 years	14 to 17 years	Total %
Yes	95.7	95.0	95.2	92.4	94.6
No	4.3	5.0	4.8	7.6	5.4

DX3_2 - Needed emergency dental care? (Sample n = 1,819).

	0 to 3 years	4 to 9 years	10 to 14 years	14 to 17 years	Total %
Yes	4.2	4.2	2.4	3.0	3.4
No	95.8	95.8	97.6	97.0	96.6

DX3_3 - Needed other treatment such as fillings? (Sample n = 1,819; $\mathbf{X^2}$ p=0.003).

	0 to 3 years	4 to 9 years	10 to 14 years	14 to 17 years	Total %
Yes	9.8	26.6	25.0	23.6	24.1
No	90.2	73.4	75.0	76.4	75.9

DX3_4 - Needed dental screening, sealants, or fluoride treatment?
(Sample n = 1,819; $\mathbf{X^2}$ p=0.000).

	0 to 3 years	4 to 9 years	10 to 14 years	14 to 17 years	Total %
Yes	11.1	32.7	36.6	23.1	30.3
No	88.9	67.3	63.4	76.9	69.7

DX4 - In the last 12 months, was there any time when CHILD needed dental care but could not get it for any reason? (Sample n = 1,817; $\mathbf{X^2}$ p=0.027).

	0 to 3 years	4 to 9 years	10 to 14 years	14 to 17 years	Total %
Yes	7.1	2.4	4.5	5.8	4.2
No	92.9	97.6	95.5	94.2	95.8

DX5 - What was the main reason CHILD could not get dental care? (Sample n = 82).

	0 to 3 years	4 to 9 years	10 to 14 years	14 to 17 years	Total %
Could not afford the care or have no insurance	27.3	67.6	49.8	57.6	52.8
Insurance/HMO coverage was inadequate	29.6	6.3	28.9	25.4	23.0
Trouble getting an appointment	.0	26.1	5.2	8.5	10.0
Distance or transportation problems	.0	.0	3.8	.0	1.4
Not comfortable with providers available at the time	5.1	.0	.0	.0	.7
Available providers did not have expertise child needed	.0	.0	.0	.0	.0
Inconvenient hours not open when care needed	.0	.0	.0	.0	.0
Did not know where to go at night or on weekend	.0	.0	.0	.0	.0
Could not get off work	.0	.0	.0	.0	.0
Language or communication problems	.0	.0	.0	.0	.0
Bad last experience or heard about bad experiences	.0	.0	.0	.0	.0
Child was too afraid to go	10.1	.0	.0	.0	1.4

DX6A - In the last 12 months, was there any time when CHILD received dental care services in a WIC CLINIC? (Sample n = 1,810; FISHER p=0.045).

	0 to 3 years	4 to 9 years	10 to 14 years	14 to 17 years	Total %
Yes	16.3	2.2	.1	.6	2.3
No	83.7	97.8	99.9	99.4	97.7

DX6B - In the last 12 months, was there any time when CHILD received dental care services in a HEAD START CENTER? [Asked if Under 6] (Sample n = 299).

	0 to 3 years	4 to 9 years	10 to 14 years	14 to 17 years	Total %
Yes	5.2	4.6	.0	.0	4.8
No	94.8	95.4	.0	.0	95.2

DX6C - In the last 12 months, was there any time when CHILD received dental care services in a PRESCHOOL? [Asked if Under 6] (Sample n = 299; FISHER p=0.002).

	0 to 3 years	4 to 9 years	10 to 14 years	14 to 17 years	Total %
Yes	3.5	14.7	.0	.0	10.1
No	96.5	85.3	.0	.0	89.9

DX6D - In the last 12 months, was there any time when CHILD received dental care services in a CHILD CARE SETTING? [Asked if Under 6] (Sample n = 300).

	0 to 3 years	4 to 9 years	10 to 14 years	14 to 17 years	Total %
Yes	1.5	6.0	.0	.0	4.1
No	98.5	94.0	.0	.0	95.9

DX6E - In the last 12 months, was there any time when CHILD received dental care services in a SCHOOL? [Asked if 5+] (Sample n = 1,601; FISHER p=0.000).

	0 to 3 years	4 to 9 years	10 to 14 years	14 to 17 years	Total %
Yes	.0	14.7	5.5	1.6	8.1
No	.0	85.3	94.5	98.4	91.9

DX7 - Is there one main place where you usually go for your child's dental care?
(Sample n = 2,268; Montecarlo FISHER p=0.000).

	0 to 3 years	4 to 9 years	10 to 14 years	14 to 17 years	Total %
Yes	61.9	96.1	96.7	97.4	90.5
No	4.8	2.8	3.3	2.6	3.3
CHILD HAS NEVER BEEN	33.3	1.1	.0	.0	6.3

DX8 - What kind of place do you usually go for your child's dental care?
(Sample n = 2,068; Montecarlo FISHER p=0.019).

	0 to 3 years	4 to 9 years	10 to 14 years	14 to 17 years	Total %
Dental office	86.6	93.7	93.3	94.5	92.9
Clinic	8.4	4.6	5.0	3.7	5.0
Community health center	3.9	1.3	1.0	.4	1.4
Or somewhere else	1.1	.4	.7	1.4	.8

DX9 - When was CHILD last check-up by a dentist?
(Sample n = 2,130; Montecarlo FISHER p=0.000).

	0 to 3 years	4 to 9 years	10 to 14 years	14 to 17 years	Total %
Less than 12 months ago	60.0	94.2	93.9	90.2	89.0
Between 1 and 2 years ago	2.2	3.0	4.9	7.1	4.3
More than 2 years ago	.0	.8	1.2	2.6	1.2
Child has never been	37.7	2.0	.0	.0	5.5

DX10 - How often were you able to get dental care for your child as soon as you wanted?
(Sample n = 2,184; Montecarlo FISHER p=0.000).

	0 to 3 years	4 to 9 years	10 to 14 years	14 to 17 years	Total %
Never	1.5	.9	.7	1.4	1.0
Sometimes	6.2	6.6	5.4	8.3	6.5
Usually	13.7	22.0	23.6	25.9	22.0
Always	44.9	69.1	69.8	64.0	64.8
Never Tried	33.7	1.4	.5	.3	5.6

DX11 - How would you rate CHILD overall dental health?

(Sample n = 2,260; Montecarlo FISHER p=0.004).

	0 to 3 years	**4 to 9 years**	**10 to 14 years**	**14 to 17 years**	**Total %**
Excellent	51.7	39.1	41.3	45.6	43.1
Very good	28.2	37.3	34.6	34.2	34.4
Good	18.1	17.9	19.6	15.8	18.1
Fair	1.0	5.4	4.0	4.1	4.0
Poor	1.0	.3	.4	.3	.5

ORAL HEALTH by FPL

DX1 - Does CHILD currently have insurance that covers dental care? (Sample n = 2,365).

	<134% FLP	134-199% FPL	200+%FPL	Total%
Yes	88.7	83.0	82.0	83.0
No	11.3	17.0	18.0	17.0

DX2 - During the last 12 months, was there any time when you or a HP thought CHILD needed dental care (including routine care/checkups)? [Asked if age 1+] (Sample n = 2,267).

	<134% FLP	134-199% FPL	200+%FPL	Total%
Yes	75.7	75.0	80.1	78.8
No	24.3	25.0	19.9	21.2

DX3_1 - Needed check-up or cleaning? (Sample n = 1,819).

	<134% FLP	134-199% FPL	200+%FPL	Total%
Yes	92.7	93.4	95.4	94.8
No	7.3	6.6	4.6	5.2

DX3_2 - Needed emergency dental care? (Sample n = 1,819).

	<134% FLP	134-199% FPL	200+%FPL	Total%
Yes	1.6	4.2	3.3	3.2
No	98.4	95.8	96.7	96.8

DX3_3 - Needed other treatment such as fillings? (Sample n = 1,819).

	<134% FLP	134-199% FPL	200+%FPL	Total%
Yes	28.4	29.0	23.4	24.7
No	71.6	71.0	76.6	75.3

DX3_4 - Needed dental screening, sealants, or fluoride treatment? (Sample n = 1,819).

	<134% FLP	134-199% FPL	200+%FPL	Total%
Yes	30.1	31.4	31.7	31.5
No	69.9	68.6	68.3	68.5

DX4 - In the last 12 months, was there any time when CHILD needed dental care but could not get it for any reason? (Sample n = 1,817; $\mathbf{X^2}$ p=0.001).

	<134% FLP	134-199% FPL	200+%FPL	Total%
Yes	10.1	4.0	3.0	3.9
No	89.9	96.0	97.0	96.1

DX5 - What was the main reason CHILD could not get dental care? (Sample n = 82).

	<134% FLP	134-199% FPL	200+%FPL	Total%
Could not afford the care or have no insurance	32.9	50.6	56.0	48.5
Insurance/HMO coverage was inadequate	30.3	39.6	20.9	26.5
Trouble getting an appointment	20.1	.0	11.5	12.2
Distance or transportation problems	.0	.0	1.4	.8
Not comfortable with providers available at the time	.0	5.6	.0	.9
Available providers did not have expertise child needed	.0	.0	.0	.0
Inconvenient hours not open when care needed	.0	.0	.0	.0
Did not know where to go at night or on weekend	.0	.0	.0	.0
Could not get off work	.0	.0	.0	.0
Language or communication problems	.0	.0	.0	.0
Bad last experience or heard about bad experiences	.0	.0	.0	.0
Child was too afraid to go	6.0	.0	.0	1.7

DX6A - In the last 12 months, was there any time when CHILD received dental care services in a WIC CLINIC? (Sample n = 1,810; FISHER p=0.000).

	<134% FLP	134-199% FPL	200+%FPL	Total%
Yes	8.8	4.2	.4	1.9
No	91.2	95.8	99.6	98.1

DX6B - In the last 12 months, was there any time when CHILD received dental care services in a HEAD START CENTER? [Asked if Under 6] (Sample n = 299; FISHER p=0.000).

	<134% FLP	134-199% FPL	200+%FPL	Total%
Yes	24.2	.0	2.9	5.3
No	75.8	100.0	97.1	94.7

DX6C - In the last 12 months, was there any time when CHILD received dental care services in a PRESCHOOL? [Asked if Under 6] (Sample n = 299; FISHER p=0.030).

	<134% FLP	134-199% FPL	200+%FPL	Total%
Yes	25.7	8.8	9.6	11.6
No	74.3	91.2	90.4	88.4

DX6D - In the last 12 months, was there any time when CHILD received dental care services in a CHILD CARE SETTING? [Asked if Under 6] (Sample n = 300).

	<134% FLP	134-199% FPL	200+%FPL	Total%
Yes	11.6	2.0	3.7	4.4
No	88.4	98.0	96.3	95.6

DX6E - In the last 12 months, was there any time when CHILD received dental care services in a SCHOOL? [Asked if 5+] (Sample n = 1,601; $\mathbf{X^2}$ p=0.001).

	<134% FLP	134-199% FPL	200+%FPL	Total%
Yes	16.9	5.8	6.9	7.8
No	83.1	94.2	93.1	92.2

DX7 - Is there one main place where you usually go for your child's dental care?
(Sample n = 2,268; Montecarlo FISHER p=0.030).

	<134% FLP	134-199% FPL	200+%FPL	Total%
Yes	88.3	92.3	90.5	90.6
No	7.1	1.5	2.5	2.9
CHILD HAS NEVER BEEN	4.6	6.1	7.0	6.6

DX8 - What kind of place do you usually go for your child's dental care?
(Sample n = 2,068; Montecarlo FISHER p=0.000).

	<134% FLP	134-199% FPL	200+%FPL	Total%
Dental office	78.1	88.9	97.2	93.8
Clinic	11.8	7.2	2.5	4.3
Community health center	7.7	1.2	.1	1.1
Or somewhere else	2.5	2.7	.2	.9

DX9 - When was CHILD last check-up by a dentist? (Sample n = 2,130).

	<134% FLP	134-199% FPL	200+%FPL	Total%
Less than 12 months ago	87.3	89.6	90.4	89.9
Between 1 and 2 years ago	7.4	3.3	3.9	4.2
More than 2 years ago	2.0	1.3	.6	.9
Child has never been	3.3	5.8	5.1	5.0

DX10 - How often were you able to get dental care for your child as soon as you wanted?
(Sample n = 2,184; Montecarlo FISHER p=0.001).

	<134% FLP	134-199% FPL	200+%FPL	Total%
Never	2.4	.6	.8	.9
Sometimes	13.0	9.1	4.8	6.4
Usually	23.5	24.0	22.4	22.8
Always	58.3	61.4	66.2	64.6
Never Tried	3.0	4.8	5.9	5.4

DX11 - How would you rate CHILD overall dental health?
(Sample n = 2,260; Montecarlo FISHER p=0.000).

	<134% FLP	**134-199% FPL**	**200+%FPL**	**Total%**
Excellent	31.4	37.4	47.0	43.7
Very good	31.4	36.6	35.2	35.0
Good	27.7	18.3	15.2	17.1
Fair	9.1	6.8	2.4	3.9
Poor	.4	.9	.3	.4

ORAL HEALTH by Race/Ethnicity

DX1 - Does CHILD currently have insurance that covers dental care?
(Sample n = 2,365; FISHER p=0.009).

	African-American (Non-Hispanic)	Latino/Hispanic (all races)	Whites (Non-Hispanic)	Total%
Yes	100.0	82.8	81.2	81.7
No	.0	17.2	18.8	18.3

DX2 - During the last 12 months, was there any time when you or a HP thought CHILD needed dental care (including routine care/checkups)? [Asked if age 1+] (Sample n = 2,267).

	African-American (Non-Hispanic)	Latino/Hispanic (all races)	Whites (Non-Hispanic)	Total%
Yes	72.4	80.8	78.2	78.3
No	27.6	19.2	21.8	21.7

DX3_1 - Needed check-up or cleaning? (Sample n = 1,819; FISHER p=0.023).

	African-American (Non-Hispanic)	Latino/Hispanic (all races)	Whites (Non-Hispanic)	Total%
Yes	85.2	90.1	95.1	94.6
No	14.8	9.9	4.9	5.4

DX3_2 - Needed emergency dental care? (Sample n = 1,819).

	African-American (Non-Hispanic)	Latino/Hispanic (all races)	Whites (Non-Hispanic)	Total%
Yes	7.0	3.6	3.5	3.6
No	93.0	96.4	96.5	96.4

DX3_3 - Needed other treatment such as fillings? (Sample n = 1,819).

	African-American (Non-Hispanic)	Latino/Hispanic (all races)	Whites (Non-Hispanic)	Total%
Yes	20.2	29.2	23.2	23.5
No	79.8	70.8	76.8	76.5

DX3_4 - Needed dental screening, sealants, or flouride treatment? (Sample n = 1,819).

	African-American (Non-Hispanic)	Latino/Hispanic (all races)	Whites (Non-Hispanic)	Total%
Yes	26.0	20.4	30.9	30.1
No	74.0	79.6	69.1	69.9

DX4 - In the last 12 months, was there any time when CHILD needed dental care but could not get it for any reason? (Sample n = 1,817; FISHER p=0.004).

	African-American (Non-Hispanic)	Latino/Hispanic (all races)	Whites (Non-Hispanic)	Total%
Yes	19.2	7.6	3.4	3.9
No	80.8	92.4	96.6	96.1

DX5 - What was the main reason CHILD could not get dental care? (Sample n = 82).

	African-American (Non-Hispanic)	Latino/Hispanic (all races)	Whites (Non-Hispanic)	Total%
Could not afford the care or have no insurance	23.1	73.9	54.5	55.0
Insurance/HMO coverage was inadequate	.0	12.0	27.9	23.9
Trouble getting an appointment	36.3	.0	7.1	8.2
Distance or transportation problems	.0	.0	2.0	1.6
Not comfortable with providers available at the time	.0	.0	1.0	.8
Available providers did not have expertise child needed	.0	.0	.0	.0
Inconvenient hours not open when care needed	.0	.0	.0	.0
Did not know where to go at night or on weekend	.0	.0	.0	.0
Could not get off work	.0	.0	.0	.0
Language or communication problems	.0	.0	.0	.0
Bad last experience or heard about bad experiences	.0	.0	.0	.0
Child was too afraid to go	.0	.0	2.0	1.6

DX6A - In the last 12 months, was there any time when CHILD received dental care services in a WIC CLINIC? (Sample n = 1,810; FISHER p=0.000).

	African-American (Non-Hispanic)	Latino/Hispanic (all races)	Whites (Non-Hispanic)	Total%
Yes	.0	10.6	1.5	2.1
No	100.0	89.4	98.5	97.9

DX6B - In the last 12 months, was there any time when CHILD received dental care services in a HEAD START CENTER? [Asked if Under 6] (Sample n = 299).

	African-American (Non-Hispanic)	Latino/Hispanic (all races)	Whites (Non-Hispanic)	Total%
Yes	.0	12.0	3.9	4.7
No	100.0	88.0	96.1	95.3

DX6C - In the last 12 months, was there any time when CHILD received dental care services in a PRESCHOOL? [Asked if Under 6] (Sample n = 299).

	African-American (Non-Hispanic)	Latino/Hispanic (all races)	Whites (Non-Hispanic)	Total%
Yes	.0	19.5	9.6	10.6
No	100.0	80.5	90.4	89.4

DX6D - In the last 12 months, was there any time when CHILD received dental care services in a CHILD CARE SETTING? [Asked if Under 6] (Sample n = 300).

	African-American (Non-Hispanic)	Latino/Hispanic (all races)	Whites (Non-Hispanic)	Total%
Yes	.0	11.4	3.4	4.2
No	100.0	88.6	96.6	95.8

DX6E - In the last 12 months, was there any time when CHILD received dental care services in a SCHOOL? [Asked if 5+] (Sample n = 1,601; FISHER p=0.002).

	African-American (Non-Hispanic)	Latino/Hispanic (all races)	Whites (Non-Hispanic)	Total%
Yes	14.7	18.5	6.9	7.7
No	85.3	81.5	93.1	92.3

DX7 - Is there one main place where you usually go for your child's dental care? (Sample n = 2,268; Montecarlo FISHER p=0.024).

	African-American (Non-Hispanic)	Latino/Hispanic (all races)	Whites (Non-Hispanic)	Total%
Yes	95.0	91.6	90.3	90.4
No	3.2	6.8	2.7	3.0
CHILD HAS NEVER BEEN	1.8	1.6	7.0	6.5

DX8 - What kind of place do you usually go for your child's dental care? (Sample n = 2,068; Montecarlo FISHER p=0.000).

	African-American (Non-Hispanic)	Latino/Hispanic (all races)	Whites (Non-Hispanic)	Total%
Dental office	92.1	58.0	95.6	93.0
Clinic	7.9	33.4	2.9	5.0
Community health center	.0	6.2	.8	1.2
Or somewhere else	.0	2.4	.7	.8

DX9 - When was CHILD last check-up by a dentist? (Sample n = 2,130).

	African-American (Non-Hispanic)	Latino/Hispanic (all races)	Whites (Non-Hispanic)	Total%
Less than 12 months ago	89.1	83.9	89.2	88.8
Between 1 and 2 years ago	1.7	7.6	4.1	4.3
More than 2 years ago	.0	2.9	1.1	1.2
Child has never been	9.2	5.7	5.6	5.7

DX10 - How often were you able to get dental care for your child as soon as you wanted? (Sample n = 2,184; Montecarlo FISHER p=0.014).

	African-American (Non-Hispanic)	Latino/Hispanic (all races)	Whites (Non-Hispanic)	Total%
Never	5.4	1.6	.8	.9
Sometimes	5.2	14.2	5.8	6.4
Usually	26.2	17.5	22.4	22.1
Always	53.7	63.3	65.1	64.8
Never Tried	9.5	3.3	5.9	5.7

DX11 - How would you rate CHILD overall dental health?
(Sample n = 2,260; Montecarlo FISHER p=0.000).

	African-American (Non-Hispanic)	Latino/Hispanic (all races)	Whites (Non-Hispanic)	Total%
Excellent	39.8	24.7	44.0	42.7
Very good	36.6	27.9	34.5	34.1
Good	23.6	33.5	17.5	18.6
Fair	.0	13.1	3.5	4.1
Poor	.0	.7	.5	.5

ORAL HEALTH by CSHCN

DX1 - Does CHILD currently have insurance that covers dental care?
(Sample n = 2,365; $\mathbf{X^2}$ p=0.000).

	No-CSHCN	Yes-CSHCN	Total%
Yes	80.2	90.6	82.2
No	19.8	9.4	17.8

DX2 - During the last 12 months, was there any time when you or a HP thought CHILD needed dental care (including routine care/checkups)? [Asked if age 1+]
(Sample n = 2,267; $\mathbf{X^2}$ p=0.000).

	No-CSHCN	Yes-CSHCN	Total%
Yes	76.0	87.0	78.2
No	24.0	13.0	21.8

DX3_1 - Needed check-up or cleaning? (Sample n = 1,819).

	No-CSHCN	Yes-CSHCN	Total%
Yes	94.1	96.4	94.6
No	5.9	3.6	5.4

DX3_2 - Needed emergency dental care? (Sample n = 1,819).

	No-CSHCN	Yes-CSHCN	Total%
Yes	3.1	4.2	3.4
No	96.9	95.8	96.6

DX3_3 - Needed other treatment such as fillings? (Sample n = 1,819).

	No-CSHCN	Yes-CSHCN	Total%
Yes	23.3	26.9	24.1
No	76.7	73.1	75.9

DX3_4 - Needed dental screening, sealants, or fluoride treatment? (Sample n = 1,819).

	No-CSHCN	Yes-CSHCN	Total%
Yes	29.9	31.9	30.3
No	70.1	68.1	69.7

DX4 - In the last 12 months, was there any time when CHILD needed dental care but could not get it for any reason? (Sample n = 1,817).

	No-CSHCN	Yes-CSHCN	Total%
Yes	3.8	5.4	4.2
No	96.2	94.6	95.8

DX5 - What was the main reason CHILD could not get dental care? (Sample n = 82).

	No-CSHCN	Yes-CSHCN	Total%
Could not afford the care or have no insurance	61.0	32.7	52.8
Insurance/HMO coverage was inadequate	18.5	34.3	23.0
Trouble getting an appointment	12.7	3.5	10.0
Distance or transportation problems	1.9	.0	1.4
Not comfortable with providers available at the time	.0	2.5	.7
Available providers did not have expertise child needed	.0	.0	.0
Inconvenient hours not open when care needed	.0	.0	.0
Did not know where to go at night or on weekend	.0	.0	.0
Could not get off work	.0	.0	.0
Language or communication problems	.0	.0	.0
Bad last experience or heard about bad experiences	.0	.0	.0
Child was too afraid to go	2.0	.0	1.4

DX6A - In the last 12 months, was there any time when CHILD received dental care services in a WIC CLINIC? (Sample n = 1,810).

	No-CSHCN	Yes-CSHCN	Total%
Yes	2.7	1.2	2.3
No	97.3	98.8	97.7

DX6B - In the last 12 months, was there any time when CHILD received dental care services in a HEAD START CENTER? [Asked if Under 6] (Sample n = 299).

	No-CSHCN	Yes-CSHCN	Total%
Yes	5.6	.0	4.8
No	94.4	100.0	95.2

DX6C - In the last 12 months, was there any time when CHILD received dental care services in a PRESCHOOL? [Asked if Under 6] (Sample n = 299).

	No-CSHCN	Yes-CSHCN	Total%
Yes	10.2	9.5	10.1
No	89.8	90.5	89.9

DX6D - In the last 12 months, was there any time when CHILD received dental care services in a CHILD CARE SETTING? [Asked if Under 6] (Sample n = 300).

	No-CSHCN	Yes-CSHCN	Total%
Yes	3.9	5.6	4.1
No	96.1	94.4	95.9

DX6E - In the last 12 months, was there any time when CHILD received dental care services in a SCHOOL? [Asked if 5+] (Sample n = 1,601).

	No-CSHCN	Yes-CSHCN	Total%
Yes	8.1	8.2	8.1
No	91.9	91.8	91.9

DX7 - Is there one main place where you usually go for your child's dental care?
(Sample n = 2,268; $\mathbf{X^2}$ p=0.000).

	No-CSHCN	Yes-CSHCN	Total%
Yes	88.9	96.8	90.5
No	3.7	1.5	3.3
CHILD HAS NEVER BEEN	7.4	1.7	6.3

DX8 - What kind of place do you usually go for your child's dental care? (Sample n = 2,068).

	No-CSHCN	Yes-CSHCN	Total%
Dental office	92.7	93.6	92.9
Clinic	5.3	3.8	5.0
Community health center	1.4	1.1	1.4
Or somewhere else	.6	1.5	.8

DX9 - When was CHILD last check-up by a dentist?
(Sample n = 2,130; Montecarlo FISHER p=0.002).

	No-CSHCN	Yes-CSHCN	Total%
Less than 12 months ago	87.8	93.5	89.0
Between 1 and 2 years ago	4.4	3.8	4.3
More than 2 years ago	1.3	.8	1.2
Child has never been	6.5	1.8	5.5

DX10 - How often were you able to get dental care for your child as soon as you wanted?
(Sample n = 2,184; Montecarlo FISHER p=0.000).

	No-CSHCN	Yes-CSHCN	Total%
Never	.9	1.4	1.0
Sometimes	6.1	8.0	6.5
Usually	20.0	29.9	22.0
Always	66.6	58.1	64.8
Never Tried	6.2	2.6	5.6

DX11 - How would you rate CHILD overall dental health?

(Sample n = 2,260; Montecarlo FISHER p=0.000).

	No-CSHCN	Yes-CSHCN	Total%
Excellent	45.0	35.3	43.1
Very good	34.8	32.9	34.4
Good	16.9	22.6	18.1
Fair	3.1	7.8	4.0
Poor	.2	1.3	.5

ORAL HEALTH by dental insurance

DX2 - During the last 12 months, was there any time when you or a HP thought CHILD needed dental care (including routine care/checkups)? [Asked if age 1+]
(Sample n = 2,267; $\mathbf{X^2}$ p=0.000).

	Insured	Uninsured	Total%
Yes	80.8	68.0	78.6
No	19.2	32.0	21.4

DX3_1 - Needed check-up or cleaning? (Sample n = 1,819; $\mathbf{X^2}$ p=0.038).

	Insured	Uninsured	Total%
Yes	95.2	91.7	94.6
No	4.8	8.3	5.4

DX3_2 - Needed emergency dental care? (Sample n = 1,819).

	Insured	Uninsured	Total%
Yes	3.4	3.2	3.4
No	96.6	96.8	96.6

DX3_3 - Needed other treatment such as fillings? (Sample n = 1,819).

	Insured	Uninsured	Total%
Yes	24.0	24.7	24.1
No	76.0	75.3	75.9

DX3_4 - Needed dental screening, sealants, or fluoride treatment? (Sample n = 1,819).

	Insured	Uninsured	Total%
Yes	30.5	30.0	30.4
No	69.5	70.0	69.6

DX4 - In the last 12 months, was there any time when CHILD needed dental care but could not get it for any reason? (Sample n = 1,817; $\mathbf{X^2}$ p=0.000).

	Insured	Uninsured	Total%
Yes	3.0	10.5	4.2
No	97.0	89.5	95.8

DX5 - What was the main reason CHILD could not get dental care? (Sample n = 82).

	Insured	Uninsured	Total%
Could not afford the care or have no insurance	33.6	83.7	52.8
Insurance/HMO coverage was inadequate	31.8	8.9	23.0
Trouble getting an appointment	13.2	4.9	10.0
Distance or transportation problems	2.2	.0	1.4
Not comfortable with providers available at the time	1.2	.0	.7
Available providers did not have expertise child needed	.0	.0	.0
Inconvenient hours not open when care needed	.0	.0	.0
Did not know where to go at night or on weekend	.0	.0	.0
Could not get off work	.0	.0	.0
Language or communication problems	.0	.0	.0
Bad last experience or heard about bad experiences	.0	.0	.0
Child was too afraid to go	2.3	.0	1.4

DX6A - In the last 12 months, was there any time when CHILD received dental care services in a WIC CLINIC? (Sample n = 1,810).

	Insured	Uninsured	Total%
Yes	2.5	1.7	2.4
No	97.5	98.3	97.6

DX6B - In the last 12 months, was there any time when CHILD received dental care services in a HEAD START CENTER? [Asked if Under 6] (Sample n = 299).

	Insured	Uninsured	Total%
Yes	5.6	.0	4.8
No	94.4	100.0	95.2

DX6C - In the last 12 months, was there any time when CHILD received dental care services in a PRESCHOOL? [Asked if Under 6] (Sample n = 299).

	Insured	Uninsured	Total%
Yes	10.0	11.0	10.1
No	90.0	89.0	89.9

DX6D - In the last 12 months, was there any time when CHILD received dental care services in a CHILD CARE SETTING? [Asked if Under 6] (Sample n = 300).

	Insured	Uninsured	Total%
Yes	4.4	2.3	4.1
No	95.6	97.7	95.9

DX6E - In the last 12 months, was there any time when CHILD received dental care services in a SCHOOL? [Asked if 5+] (Sample n = 1,601; $\mathbf{X^2}$ p=0.020).

	Insured	Uninsured	Total%
Yes	7.3	12.7	8.1
No	92.7	87.3	91.9

DX7 - Is there one main place where you usually go for your child's dental care? (Sample n = 2,268; $\mathbf{X^2}$ p=0.000).

	Insured	Uninsured	Total%
Yes	92.7	81.6	90.8
No	2.3	7.1	3.1
CHILD HAS NEVER BEEN	5.0	11.3	6.1

DX8 - What kind of place do you usually go for your child's dental care?
(Sample n = 2,068; Montecarlo FISHER p=0.002).

	Insured	Uninsured	Total%
Dental office	93.6	88.9	92.9
Clinic	4.4	8.5	5.0
Community health center	1.5	.4	1.3
Or somewhere else	.5	2.1	.8

DX9 - When was CHILD last check-up by a dentist? (Sample n = 2,130; $\mathbf{X^2}$ p=0.000).

	Insured	Uninsured	Total%
Less than 12 months ago	91.2	78.7	89.1
Between 1 and 2 years ago	3.7	6.7	4.2
More than 2 years ago	.4	4.8	1.2
Child has never been	4.7	9.9	5.5

DX10 - How often were you able to get dental care for your child as soon as you wanted?
(Sample n = 2,184; Montecarlo FISHER p=0.000).

	Insured	Uninsured	Total%
Never	.9	1.6	1.0
Sometimes	6.2	7.9	6.5
Usually	21.6	23.9	22.0
Always	67.0	54.7	64.9
Never Tried	4.3	12.0	5.6

DX11 - How would you rate CHILD overall dental health? (Sample n = 2,260).

	Insured	Uninsured	Total%
Excellent	43.7	40.9	43.2
Very good	34.3	34.9	34.4
Good	17.7	19.0	18.0
Fair	3.9	4.6	4.0
Poor	.4	.6	.5