The 2010 Iowa Child and Family Household Health Survey

Early childhood results for children ages 0–5 years

Second report in a series

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**APPENDIX 3: MEDICAL HOME IN THE 2010 IHHS**
INTRODUCTION

The State of Iowa has in recent years placed a special emphasis on early care, education, and health for its youngest residents as a way to get children off to a good start in life. This report provides specific data about the health and well-being of Iowa’s children ages 0-5 years. These data are derived from questions in the 2010 Iowa Child and Family Household Health Survey (IHHS). The 2010 IHHS is the third comprehensive, statewide study to evaluate the health status, access to health care, and social environment of children living in families in Iowa. Previous IHHS surveys were conducted in 2000 and 2005. This report on early childhood issues (i.e., pre-kindergarten) is the second in a series of reports presenting results from the 2010 IHHS.

This study represents a collaboration between the Iowa Department of Public Health (IDPH), the University of Iowa Public Policy Center (PPC), and Child Health Specialty Clinics (CHSC). Funding for the 2010 survey was provided by the IDPH, with additional funding from: the U.S. Department of Health and Human Services Maternal and Child Health Bureau (MCHB), Blank Children’s Hospital; American Academy of Pediatrics – Iowa Chapter; Child Health Specialty Clinics; and ARRA funding through Early ACCESS.

The primary goals of the 2010 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 features of uninsured children and parents, and 4) assess the health and well-being of racial and ethnic minority children in Iowa. Questions in the 2010 survey included a wide range of topic areas encompassing the health, overall well-being, and family environment of children in Iowa with a special emphasis on early childhood issues.

Topic areas in the 2010 survey include:

- Functional health status
- Access/need
- Medical home
- Prescription medication
- Dental care
- Emergency room use
- Behavioral and emotional health
- Early childhood
- Child care
- Social determinants of health
- Nutrition, physical activity, food insecurity
- Parent health status/family health
- Substance use and gambling
- Demographics
Specific early childhood issues addressed in this report include:

- Early childhood environment
- Medical home and access to health care
- Social determinants of health:
  - Neighborhood connectedness
  - Food insecurity
  - Maternal well-being and parenting stress
- Development and assessment for children
- Child care

The results for individual questions from the survey relevant to early childhood can be found in the appendices of this report. They are organized by age category: infants: 0-1 years, toddlers: 2-3 years, preschoolers: 4-5 years and includes subtotals for the 0-3 age group, and totals for ages 0-5 (Appendix 1). Appendix 2 contains results organized by and the Federal Poverty Level (FPL) status of the child.

METHODS

The 2010 Iowa Household Health Survey was a population-based statewide survey using a mixed-mode approach to the data collection; it included an oversample of African-American and Latino children. The survey was conducted with parents of children in Iowa using an address-based sampling design. Data collection was completed using a combination of telephone and Internet survey methods. The University of Northern Iowa Center for Social and Behavioral Research coordinated the data collection efforts.

For the survey process: 1) A packet was mailed to a statewide random sample of addresses drawn from the United States Postal Service (USPS) Delivery Sequence File (DSF). The packet included an information letter with instructions for completing a web-based questionnaire; 2) The USPS DSF included telephone numbers for about 60% of addresses. Non-respondents for whom a phone number was available were called if they did not complete the web survey within the first week.

During the core data collection period, 2,386 participated: 1,859 phone and 527 online interviews took place with the parent or guardian of one randomly selected child age 0-17 years living in the household. The data were weighted to account for family size and post-stratified to reflect the 2010 child population in Iowa. As the 2010 Census had just been completed at the time of the 2010 Iowa Household Health Survey, a relatively precise count of children in Iowa was obtained. This was used to determine if the characteristics of the population who completed the survey varied significantly from the total population as identified in the census data.
A weight related to the design effect was added to the analysis in order to make statistical testing more accurate. Weights for individual cases range from .28 to 3.84, with a mean weight of .7629.

Respondents were primarily mothers (78%), although 16% were fathers. The remaining 6% were other types of guardians, primarily relatives of the child. There were almost equal numbers of boys (51%) and girls (49%) represented in the sample.

For this report, data were used only for children ages 0-5 years. The total number of families with young children for this study was 660; of those, 52 children were already in Kindergarten. Results will be described in terms of total number of young children for three different income categories (lower: <133% FPL, moderate: 133-200% FPL, and higher: >200% FPL), and by the following age categories: 0-1 (infant), 2-3 (toddler), 4-5 (preschool). Appendices 1 and 2 contain the results for each of the questions in the survey for the early childhood population in Iowa.
DEMOGRAPHICS OF YOUNG CHILDREN IN IOWA

Current estimates of Iowa’s child population indicate that there were about 242,000 children in Iowa between the ages of 0 and 5 years in 2010.¹ This represents about a 6 percent increase from the 2000 decennial U.S. Census, where there were just over 229,000 children in this age group. Children in the 0-5 year age group represent about 31% of Iowa’s child population (age 0-18 years). About 20% of children age 0-5 years are living below the FPL.² Among all of Iowa’s children ages 0-18 years who are living below the FPL, about 30% are between the ages of 0 and 5 years (Figures 1 and 2).

![Figure 1. Percent of children age 5 years or under who live under the FPL](image)

- 80% not living in poverty
- 20% living in poverty

![Figure 2. Ages of children who live under the FPL (percent)](image)

- 70% 6-17 years
- 30% 5 years and under

HEALTH STATUS OF YOUNG CHILDREN IN IOWA

The health status of young children was evaluated in two ways: a) using a global measure of parents’ rating of their child’s health, and b) using a series of questions about functional health status to identify children with a special health care need.

Young children in Iowa were in generally good health, with over 90% of children reported as having excellent (67%) or very good (25%) overall health status. There was a statistically significant difference by income level in the reported health of Iowa’s youngest children. In Iowa’s age 0-5 years population, the lowest income group (up to 133% of the FPL) were reported as the least healthy, with 75% reported to be in excellent or very good health (Figure 3). Ninety-five percent of the higher income children (200+% FPL) were reported to have excellent or very good health, along with 93% of young children in the 134-200% FPL group.

Figure 3. Overall health status of children under age 6 by Federal Poverty Level

Children with Special Health Care Needs

About 10% of Iowa’s youngest children were defined as having a special health care need (CSHCN) using the nationally recognized Children and Adolescent Health Measurement Inventory (CAHMI) CSHCN screening tool. This is a decrease from 14% in 2005. The CAHMI is a series of five questions that categorizes children as having a special health care need as part of a survey instrument. Younger children (age 0-5 years) were significantly less likely to be defined as having a special health care need than older children (6-17 years) in Iowa (21% for all Iowa children). This is to be expected since many of the conditions resulting in a child being defined as having a special health care need do not manifest themselves in very young children.

Among young children, the proportion categorized as having a special health care need was not statistically significantly different by age. However, it did vary by income. Children ages 0-5 years in the lowest income group (up to 133% of the FPL) were more likely to be a CSHCN, with 20% compared to children with higher income groups (134-200%: 10% and +200%: 8%) (Figure 4).

![Figure 4. Percent of Children with Special Health Care Needs, age 5 years and under, by Federal Poverty Level](image)

**HEALTH CARE COVERAGE**

As in 2005, Iowa has been effective in providing health coverage to almost all children. Most of the youngest Iowans had health care coverage (98%) in 2010. Insurance coverage did not vary by income or age group. Most children whose households earn less than 200% FPL should be eligible for health care coverage through either the Medicaid or hawk-i programs.

The majority of young children with health insurance in Iowa were covered by private insurance (73%), and about 1 in 4 were covered by a public insurance program (primarily Medicaid but also hawk-i). Among those whose household income fell below 133% of the FPL (approximates Medicaid eligibility), about 85% were covered by public insurance; one-tenth, however, had some form of employer-based health coverage.

Although one-quarter of young children were in Medicaid at the time of the survey, over 1 in 3 had been covered by Medicaid at some time in the past. Ninety-five percent of children in the lowest income group had Medicaid experience, along with 53% of those in the 134-200% FPL group. In the 200%+ FPL group, 13% have had experience with the Medicaid program.
Parents of young children are less likely than their children to have health care coverage (89% have coverage). This varied greatly by income level, however. Figure 5 shows this discrepancy by income level.

![Figure 5](image)

**Figure 5. Percent of children ages 0-5 years with uninsured parents, by FPL**

**MEDICAL HOME AND ACCESS TO MEDICAL CARE**

Nearly all of Iowa’s young children (94%) were reported to have a personal doctor or a nurse, and very few (2%) reported that their child had an unmet need for medical care in the previous year (i.e., were stopped from getting needed medical care). Children in lower income households were less likely to have a personal doctor or nurse (Figure 6). Also, among those who needed care in the past 12 months, 98% of children had a usual place for care. Having a usual place of care did not vary by age or income.

![Figure 6](image)

**Figure 6. Percent of children ages 0-5 years with a personal doctor or nurse, by FPL**
The patient-centered medical home concept is an effort to provide care to patients that assures ease of access, including extended hours of care, improved communication and care coordination, and team-based approaches to health care. The goal is to increase quality of health care while reducing costs.

**Medical Home**

The 2010 IHHS included a series of new questions designed to measure the percent of children in the state whose health care is provided through a medical home. In order to qualify as having a medical home for the purposes of this study, children needed to have: 1) a personal doctor or nurse, AND 2) if care was needed, a regular source of both sick and well-child care; children were also required to have adequate referrals, or care coordination, or family-centered care when needed (See Appendix 3).

About eight in ten young children in Iowa (82%) had care that met the definition of Medical Home. Children in lower income households were less likely to meet the criteria for having a Medical Home, as shown in Figure 7. Also, children between 2-3 years (76%) were less likely to have Medical Home compared to children 0-1 year (86%), and 4-5 years (83%).

![Figure 7. Percent of children ages 0-5 years with a Medical Home, by FPL](image)

Having a Medical Home is of key importance for CSHCN. Children ages 0-5 years in Iowa with special health care needs were significantly less likely to meet the required criteria for Medical Home. Sixty-eight percent of CSHCN had a Medical Home, compared with 83% of other young children in Iowa.

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Emergency room care

Thirty-one percent of young children had visited an emergency room (ER) at least one time in the past twelve months. ER visits did not vary by income. Primary reasons for ER visits were trauma, including broken bones or stitches (30%), high fever (12%), or ear infections (9%). In 2 out of 5 cases (40%), respondents said that a health care provider told them to go to the emergency room for their most recent visit. In three-fourths (73%) of cases, the care for the most recent visit could have been provided in a doctor’s office had one been available. For the most part, these children were taken to the ER because the doctor’s office was not open or the care was needed at night or on a weekend (93%).

About three-tenths of children (28%) had parents who worried at least a little about their ability to pay for their child’s health care; this did not vary by income.

Preventive health care

Young children in Iowa were highly likely to have had a preventive medical visit in the last 12 months (96%), and almost all had a preventive visit in the last 2 years (99%). Almost three-fourths (71%) of the parents of young children in Iowa reported remembering having received preventive counseling (i.e., anticipatory guidance) from a health care provider—about subjects such as watching what the child eats or using seatbelts—in the previous year. Reports of preventive counseling were most prevalent in the infant population (80%). The anticipatory guidance did not vary by income categories.

Parents of 35% of young children reported that they had been asked by a health care provider to fill out a developmental assessment for their child in the past year. This did not vary significantly by age or income category.
DENTAL HEALTH, ACCESS, AND COVERAGE

Over three-quarters (80%) of children ages 0-5 years in Iowa have dental insurance. However, children in the lowest income group (up to 133% of the FPL) were most likely to have dental insurance, with 94% compared to children in higher income groups (134-200%: 82% and +200%: 76%) (Figure 9). Most of this is difference is due to the required coverage of dental services by the Medicaid program, whereas dental insurance is not covered by all employer or individually purchased insurance products.

Figure 9. Percent of children under age 6 years without dental insurance, by FPL

About three-fourths of young children (76%) had a reported dental check-up in the past year. As shown in Figure 10, there was great variation by age in the time since last dental check-up. Older children were much more likely to have had a dental visit in the last year.
Ten percent of Iowa’s young children have received dental care services in a WIC clinic, 10% in a preschool and 5% in a Head Start Center. WIC clinic services were more likely to be provided to children in the lowest income category (29% vs 2% for those over 200% FPL). One-quarter of children under 134% FPL received dental services at a Head Start Center.

About three-fourths of young children (74%) had a main place where they usually go for dental care, including most children who had ever been to the dentist. Older children were much more likely to have a main place for dental care than younger children. About one-fifth of young children (21%) had never been to the dentist, and as shown in Figure 11. This varied greatly by age.
BEHAVIORAL AND EMOTIONAL HEALTH AND CARE

About 3% of young children in Iowa had parents who thought their child needed care for behavioral or emotional issues. Among those children, 18% were unable to get needed care (i.e., had an unmet need for behavioral or emotional care in the previous year). Overall, less than 1% of young children were reported to have unmet need for behavioral and emotional health care.

SOCIAL DETERMINANTS

Some aspects of the social determinants of health for young children in Iowa were explored in this study to expand beyond the traditional measures of health that relate to the health care delivery system. These included: neighborhood characteristics and safety, food security, breast feeding, and family functioning.

Neighborhood Characteristics

In 2010, for the first time, a series of questions designed to measure neighborhood characteristics and safety were asked. These questions were scaled together into a single measure of neighborhood support. More than 8 in 10 respondents (85%) reported living in a supportive neighborhood. However, respondents in low-income households were less likely to report that they lived in a supportive neighborhood (Figure 12).

Figure 12. Percent of children living in a supportive neighborhood by Federal Poverty Level

Most respondents (92%) felt that their children are usually or always safe in their community or neighborhood. However, parents with lower household incomes (79%) were less likely to report that their children were usually or always safe in their community or neighborhood compared to parents in higher income households (88% for 134-200% FPL; and 95% for >200%) (Figure 13). Also, children ages 2-3 years (87%) were less likely to be in a safe community or neighborhood compared to children in other age groups (95% for 0-1 year; and 94% for 4-5 years).

Low-income young children were also less likely to live in a neighborhood that was perceived to be safe.

Figure 13. Percent of children living in a safe community or neighborhood, by FPL

**Food security**

More than one in ten Iowa's youngest children lived in a household that didn't always have enough money for food. This was especially likely for children in households earning less than 134% FPL (37%). Figure 14 shows this disparity.

Figure 14. Percent of children living in a household where the food did not last and there wasn't enough money to buy more, by FPL
Breast feeding

Eighty percent of Iowa’s youngest children were breastfed for some period of time. Among those, about one-third breastfed for 3 months or less, and 40% were between 6 and 12 months when they stopped breastfeeding. Twenty-three percent of Iowa’s youngest children who ever breastfed were never fed formula.

Family Functioning

The vast majority of respondents (89%) reported that family members who live in the household eat meals together, and 97% of respondents stated that there is someone that they can turn to for day-to-day emotional help with raising children.

EARLY CHILDHOOD FAMILY ACTIVITIES

Parents of children ages 0-5 years were asked questions regarding how frequently they participated in activities with their children, such as reading, telling stories, working on letters, singing songs and playing music, working on arts and crafts, and playing games. In the week prior to the survey, 94% of children were told a story; 79% worked with letters, words or numbers; 97% sang songs or played music; 66% worked on arts and crafts; and 87% played a game. Almost two-thirds of Iowa’s young children (64%) were read to every day, and only 3% were not read to at all. Most of those who were not read to were infants. Figure 15 shows the activities in which young children participated varied by age.

Figure 15. Participated in early childhood family activities in the last week, by age
**CHILD CARE**

In order to more thoroughly examine the issue of child care, parents of young children were asked about child care arrangements. Almost two-thirds (63%) of children in Iowa ages 0-5 spent at least some time in child care in the week prior to the survey. Children in higher income households were more likely to have received care in a child care setting (42% for <134% FPL; 51% for 134-200% FPL; and 74% for >200% FPL). About a third (33%) of Iowa’s young children had one setting where they received child care, and about a quarter (23%) received care from two or more settings. About half (46%) of the children ages 0-5 years who were in child care received at least some of their care in a home-based child care setting. Thirty-four percent received care in a child care center, and 24% in a preschool. Thirty-two percent received care from the child’s grandparent. For those children receiving child care, the number of child care settings did not differ by income level.

**PARENT SOCIAL AND EMOTIONAL HEALTH**

Parents were asked a series of questions relating to their mental health status and issues of depression. These questions were scaled together to get a composite picture of parent mental health. About 9% of young children in Iowa had parents with a lower mental health status, indicating possible depression or issues with anxiety. There were no statistically significant differences by age of the child; there were, however, significant differences by income level. As shown in Figure 16, children in lower income households were more likely to have a primary caregiver with symptoms indicative of depression.

![Figure 16. Percent of children in households with a primary caregiver who may be depressed or anxious, by FPL](image)

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Another series of questions was designed to measure parenting stress, or aggravation. About 3% of Iowa’s young children were living in households with a primary caregiver who reported a high level of parenting stress. There were no statistically significant differences by income level, nor did this measure demonstrate a difference by the age of the child. Infants were more likely to have parents reporting a low level of parenting stress than were toddlers or preschoolers (Figure 17).

Figure 17. Parents’ aggravation scale by age of child

TOBACCO, ALCOHOL AND DRUG USE PROBLEMS

Parents were asked how much of a problem in their household was caused by smoking. Smoking was reported to be a problem for about 8% of young children, which did not differ significantly by income level or child age. However, young children in lower income households were more likely to have parents reporting problems with smoking in the household (15% for <134% FPL; 11% for 134-200% FPL; and 6% for >200% FPL). Alcohol use was reported to be a problem for about 4% of young children in Iowa, which did not differ significantly by income level or child age. Household drug use problems (0.7%) and gambling problems (0.7%) were rarely reported for young children in Iowa.

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CONCLUSIONS ABOUT YOUNG CHILDREN IN IOWA

Although the overall proportion of children in Iowa remained the same between 2000 and 2010, the number of young children age 5 years and under increased 6 percent. This emphasizes the relative importance of the health and well-being of children to the future of the state.

Overall young children in Iowa were reported to be in good health, with over 93% of children reported to be in excellent or very good health. The exception was for lower income children, of whom only three-quarters were reported to be healthy. Health disparities for lower income young children is a pattern that persists for other issues as well. Lower income children were more likely to have a special health care need.

Similar disparities were found regarding the environment in which low-income young children live. These children were significantly more likely to live in less safe and supportive neighborhoods: one-third were in unsupportive neighborhoods, while one in five were in neighborhoods never or only sometimes considered safe. Additionally, one in five low-income children had a parent who met the definition of being depressed or anxious, and 15% were in a household where smoking was considered a problem.

Health insurance coverage is an area in which Iowa as a state has done well. As in 2005, only about 2% of young children were without health insurance at the time of the interview, and many of these are eligible for Medicaid or hawki. Even with this level of coverage, three in ten children had parents who worried at least a little about paying for the child's health care, regardless of income level. The importance of Medicaid as transitional coverage was also apparent, with one-quarter of young children currently enrolled, while another one-third had been enrolled at some point in the past, including 13% of higher income children.

Regarding care delivery, almost all children were reported to have had a regular source of care, and four out of five were receiving care from a place that met the definition of being a Medical Home (although this was much less for lower income young children—63%). Although almost all children had a preventive visit in the previous year, only one third had a parent who remembered having filled out a developmental assessment on their child. Emergency care remains an area with potential for improvement: among the one-third of all with ER visit, three-quarters were for events that could have been cared for in a clinic setting had one been accessible.

Dental care varied significantly by the age of the young child. One in five children age one year or under had a dental visit in the previous year as recommended by the American Academy of Pediatric Dentistry. However, 9 out of 10 children ages 4-5 were reported to have had a dental visit in the previous year. It was not possible to determine, however, the type of exam (e.g., screening or exam).

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On broader measures of well-being, parents reported themselves to be very engaged in their child's development including reading to them or telling a story, playing games and working with letters and numbers (as age appropriate).