

Weight, Eating Habits, and Physical Activity

May 2013

Results from the 2010 Iowa Child and Family Household Health Survey

Background

The 2010 Household Health Survey was conducted with over 2000 Iowa families

The information in this report, related to the nutrition and physical activity of children in Iowa, comes from the Iowa Child and Family Household Health Survey (IHHS). The HHS 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.

This 2010 survey, the third IHHS since 2000, was conducted with over 2000 Iowa families

in fall 2010—spring 2011. Over 165 questions were asked about the health status, insurance coverage and access/need for medical care, prescription medication, dental care and behavioral and emotional health of a randomly-selected child in the household. In addition, the survey included questions regarding weight status of the child, eating patterns, food insecurity, physical activity, and activity levels, which are the focus of this brief.

Demographics		2010 Survey
Age	2-6 yrs 7-11 yrs 12-17 yrs	31.1% 31.0% 37.8%
Federal Poverty Level (FPL)	<133%FPL 133-200% FPL >200% FPL	11.7% 15.9% 72.4%
Sex	% Female % Male	48.7% 51.3%
Race	African American White Other	4.4% 92.3% 4.6%
Ethnicity	% Spanish/Hispanic	6.1%

Table 1. Demographics of children from the 2010 IHHS in this brief

Methods

An address-based sampling design was used to obtain a representative sample of Iowa families

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. 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 included telephone numbers for about 60% of addresses.

The packet included an information letter with instructions for completing a web-based questionnaire and told respondents that they would receive a telephone call if the web survey was not started within the next week.

During the core data collection period, 1859 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.

The demographic distribution (weighted) of the children in these analyses is shown in Table 1. Results were calculated for children by age group (2-6, 7-11, and 12-17 years) and family poverty level, calculated using the Federal Poverty Level (FPL) definitions, based on income and household size (lower income: <133% FPL, moderate income: 133-200% FPL, and higher income: >200% FPL).

Parents were likely to misperceive the weight status of their children

Weight Status

There is growing concern in the US about overweight and obesity. According to the Centers for Disease Control and Prevention (CDC), over the past 30 years, the prevalence of obesity among children in the US has more than doubled for children, and tripled for adolescents.¹ Being overweight is associated with a host of chronic diseases, and the Iowa Department of Public Health (IDPH) has made addressing the issue a state priority.²

In this study, several questions were asked to help assess the weight status of children in Iowa. Parents were asked to (1) list their child's height and weight, and (2) rate their child's health status compared to other children (does your child weigh 'the right amount,' 'too much,' or 'not enough') (Figure 1). Parent-reported height and weight were collected in order to calculate the child's Body Mass Index (BMI), one of many common measures of a person's appropriate weight. However, parent-reported heights and weights appeared inconsistent with measured norms and could not be used in this analysis. An accurate parent-reported measure of height and weight is difficult to collect in a population-based survey because it relies on timely measurements and accurate recall.

About three-quarters of children had parents who thought their child weighed 'the right

amount', while 12% said their child weighed 'too much,' and 10% said 'not enough.'

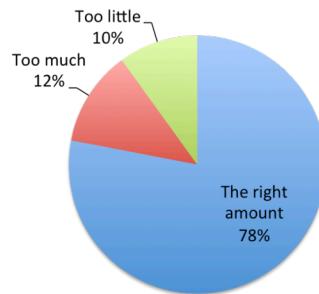


Figure 1. Parent perception of child's weight status, 2010 IHHS

These data are very similar to national data recently reported by the Robert Wood Johnson Foundation (RWJF) that indicated that only 15% of children had parents who said they were overweight. This contrasted with statistics showing that, using objective measures such as BMI, 32% are actually overweight.³ The conclusion stated in the RWJF report was that this gap indicates parents are less likely to recognize their own children as overweight.³

Supplemental figures corresponding to this research brief show eating patterns and physical activities in relation to parent perception of a child's weight. These figures can be found at the end of this research brief.

Eating Patterns

About 15% of Iowa's children met all of 4 healthy eating recommendations

- >2 servings fruits,
- >3 servings vegetables,
- no soda,
- always eat breakfast

A number of questions were asked on the survey regarding eating patterns among Iowa's children. Based on standard recommendations for healthy eating, an index was created that included eating fruits (2 or more servings) and vegetables (3 or more servings) daily, always eating breakfast, and having no daily soda consumption. Overall, about 15% of Iowa's children over age 2 had parents who reported that they met all of these recommendations. Four percent did not meet any of these recommendations. Over three-quarters of children were reported to drink no soda in an average day. However, 5% drank the equivalent of 2 cans or more per day. Seventy-three percent of children were reported to always eat breakfast, and 1%, never at breakfast. Based on recommended fruit and vegetable consumption guidelines for children, 70% of

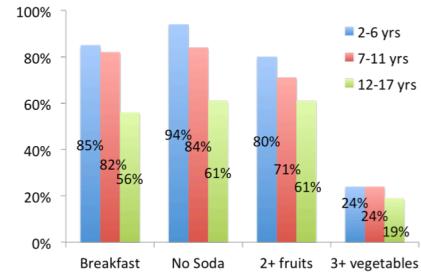


Figure 2. Eating habits of Iowa's youth, by age category, 2010 IHHS

children ate 2 or more servings of fruit per day, and 22% ate 3 or more servings of vegetables per day. Parents were less likely than children to meet the fruit recommendation (53%), however, they were more likely to meet the vegetable recommendation (30%). Younger children were more likely to meet recommended nutrition guidelines (Figure 2).

Food Insecurity

One factor that contributes to healthy eating patterns is access to food. Using three questions from the US Household Food Security Survey,⁴ this study found that about 13% of children live in a household where there were times that the food did not last, and there was no money to buy more. Eight percent of children lived in a household where adults skipped or cut the size of meals because there was no money for food. Five percent of children had an adult in the household who was hungry but did not eat because there was no money for food (Figure 3). Food insecurity was significantly worse for households with low-income children: 38% did not always have enough food, 24% skipped meals or cut the size of meals and 19% were hungry and did not eat because of money.

Physical Activity

Physical activity is important for children to remain healthy.⁴ Children in Iowa were generally active: over half (52%) reported to be physically active for an hour or more 7 days per week. The amount of exercise decreased as children grew older (Figure 4). Sixty-nine percent of children ages 2-6 exercised for an hour 7 days per week, but only 55% of those ages 7-11 and 36% of teens ages 12-17 were active every day.

One way to increase children's activity levels is through active transportation to school.⁶ About 11% of school age children walked or biked to school on an average day, and slightly more walked or biked home (16%). About one-quarter of children

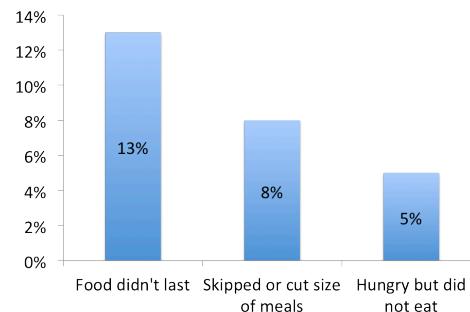


Figure 3. Household access to food, 2010 IHHS

Over 10% of Iowa families reported that they didn't always have enough food

rode the school bus and most of the rest were dropped off or drove themselves to school.

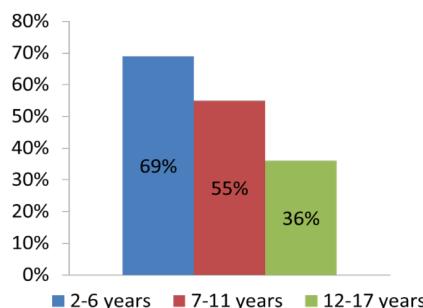


Figure 4. One hour of physical activity per day, by age category, 2010 IHHS

Almost 70% of teens have 3 or more hours of screen time per day

Screen Time

Screen time is increasingly seen as a barrier to physical activity for kids. Most children in Iowa watch television or movies, play video games or use the computer for at least 1 hour per day. Older children were reported to have more screen time (Figure 5). Sixty-nine percent of teens were reported to have more than 3 hours of screen time daily, compared with 39% of children 7-11 years old, and 25% of children 2-6 years old. The youngest children were most likely to be reported as having no screen time daily, at 9%, compared with 4% of children ages 7-11 and 1% of teens.

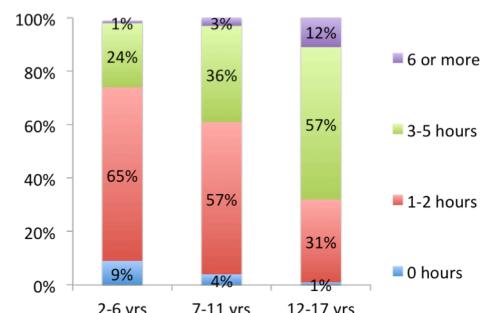


Figure 5. Daily hours of TV, video games, movies, and computer time, by age category, 2010 IHHS

Conclusions

Children in Iowa are exposed to factors that can lead to overweight and obesity. Contributing factors include issues with physical activity and food consumption. The gap between parent perceptions and the objective information on the proportion of overweight children creates a challenging situation because if parents do not perceive there is a problem, it will be more difficult to address the causes that can be influenced in the home.

Iowa's children appear to be active, although screen time may be a barrier for many children and these factors vary by age; older children are reported to be less active than younger children. A similar situation was found in regard to food. Children in Iowa are eating some fruits and vegetables, and many drink no soda on an average day. Breakfast is consumed by most children. However, older children are less likely to meet guidelines for healthy eating. Policy initiatives that focus on increasing vegetable and fruit consumption along with breakfast would likely be beneficial. Along with this, a system of assuring that all families have access to adequate food resources can help Iowa families establish healthy eating patterns.

The level of food insecurity among households with low-income children was significant. Although national data shows that one in four children receive some form of food assistance through the Supplemental Nutrition Assistance Program (SNAP), these food supplements may not be keeping up with the need.⁷

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Other research reports are available for download or can be ordered from our Website:
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References

1. Centers for Disease Control and Prevention. <http://www.cdc.gov/healthyouth/obesity/facts.htm>. Accessed 21 March 2013.
2. Iowans Fit for Life, <http://www.idph.state.ia.us/iowansfitforlife/>, Iowa Department of Public Health accessed 7 February 2013
3. Poll Finds Big Gap Between Parents and Experts. Robert Wood Johnson Foundation. Published Feb 25, 2013. <http://www.rwjf.org/en/about-rwjf/newsroom/newsroom-content/2013/02/poll-finds-big-gap-between-parents-and-experts.html>. Accessed Feb 29, 2013.
4. 2011 Pediatric Nutrition Surveillance, Iowa, US Household Food Security Survey, Centers for Disease Control and Prevention
5. Institute of Medicine; Birch, Leann L; Committee on Obesity Prevention Policies for Young Children; **Early Childhood Obesity Prevention Policies**; Nat. Academies Press; 2011
6. Roman Pabayo, Katerina Maximova, John C. Spence, Kerry Vander Ploeg, Biao Wu, Paul J. Veugelers The importance of Active Transportation to and from school for daily physical activity among children Preventive Medicine, Volume 55, Issue 3, September 2012, Pages 196–200
7. The Relationship Between SNAP and work among Low-Income Households. Center on Budget and Policy Priorities. Published Jan. 2013. Accessed Feb 27, 2013 at: <http://www.cbpp.org/cms/index.cfm?fa=view&id=3894>

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