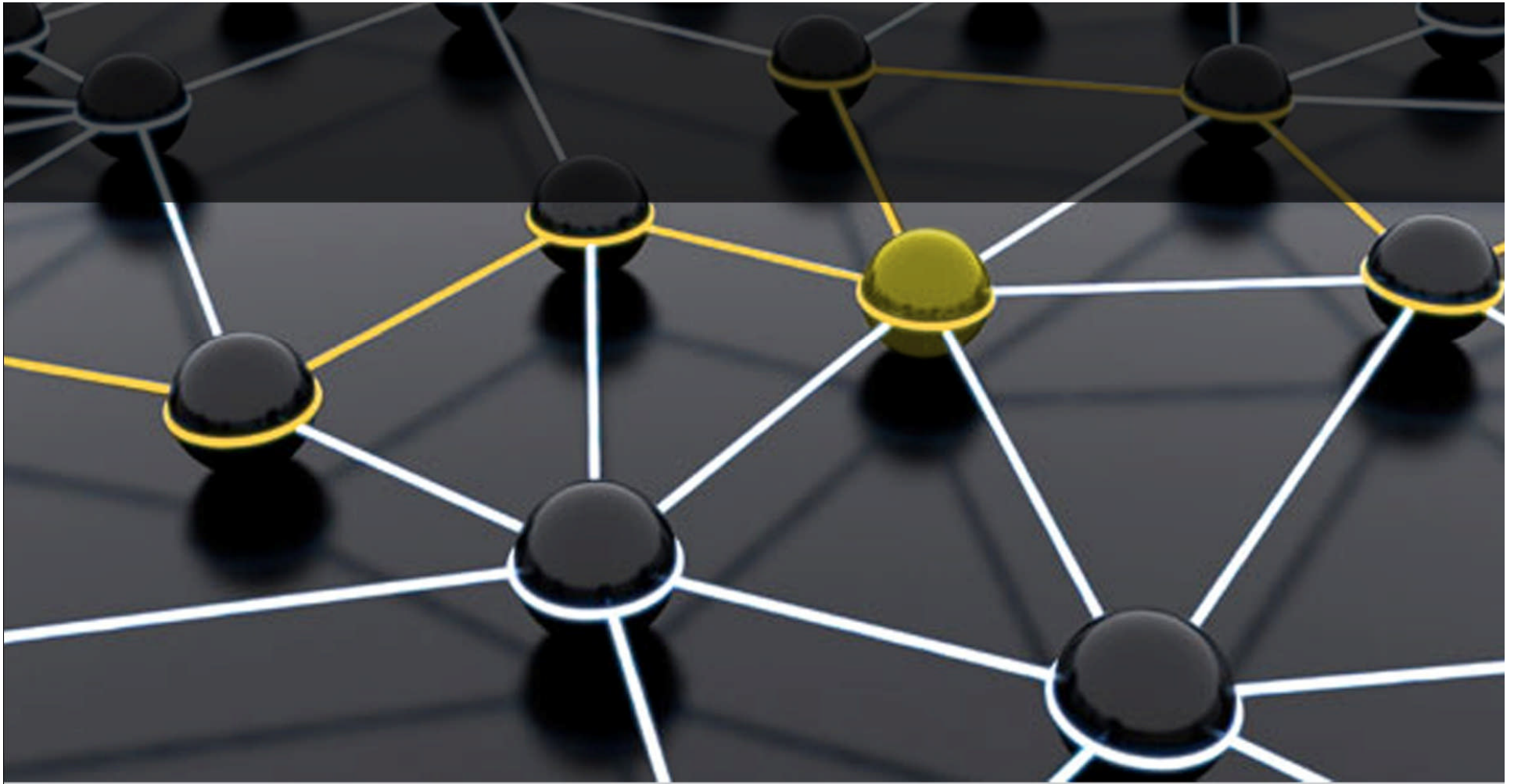


# 2011 Dayton Area Child Health and Safety Assessment



# Contents



Methods	3
Demographics	4-8
Top Parental Concerns	9
Medical Costs	10
Health and Income	12
Common Ailments	13
Medications	15
Special Conditions by Gender	16
Emergency Care	17
Dental Care and Income	24
Influenza and Income	25

Influenza and Income	25
Weight Issues	26
Diet	30
Diet and Weight	32
Sleep and Asthma	34
Where Are the Children?	35
What Are They Up To?	39
Seatbelts and Helmets	41
Bullying	46
Breastfeeding	49
ADHD, Income and Gender	52

## Study Sampling Methods



- 654 parents of children living in the Dayton Children's Medical Center general service area were surveyed either online or via telephone interview between January 31 and March 9, 2001. Respondents to the online surveys were incented by having their names entered into a drawing for one of three \$100 Kohl's gift cards.
  - 228 respondents came from a list of parents who subscribe to the Dayton Children's Medical Center email newsletter who completed the assessment via a password controlled web survey.
  - 173 responses came from parents who received an open invitation to complete the survey via announcements in the local press and completed via an open source web survey.
  - 253 surveys were completed via telephone interviews with parents who were selected from published telephone lists. Telephone respondents were selected at random proportionately to the populations of the nine counties primarily served by Dayton Children's Medical Center.
- Results were combined and weighted by key demographic factors in order to more closely match U.S. census figures for the region.
- Previous waves of the assessment had been conducted exclusively using random telephone interviewing. In recent years the proportion of families who rely exclusively on mobile phones has increased dramatically nationwide, resulting in significant declines in telephone survey response rates especially among parents of young children. This has led health and epidemiological organizations such as the National Center for Health Statistics to recommend mixed online and telephone sampling methods for the assessment of child health.
- The combination of online and telephone sampling methods coupled with demographic weighting allowed this study to come within one or two percentage points of the most recent census figures for key demographic statistics for the Miami Valley area (based on 2009 U.S. Census results for the nine county Dayton Children's Medical Center primary service area).

# Study Sample Demographics

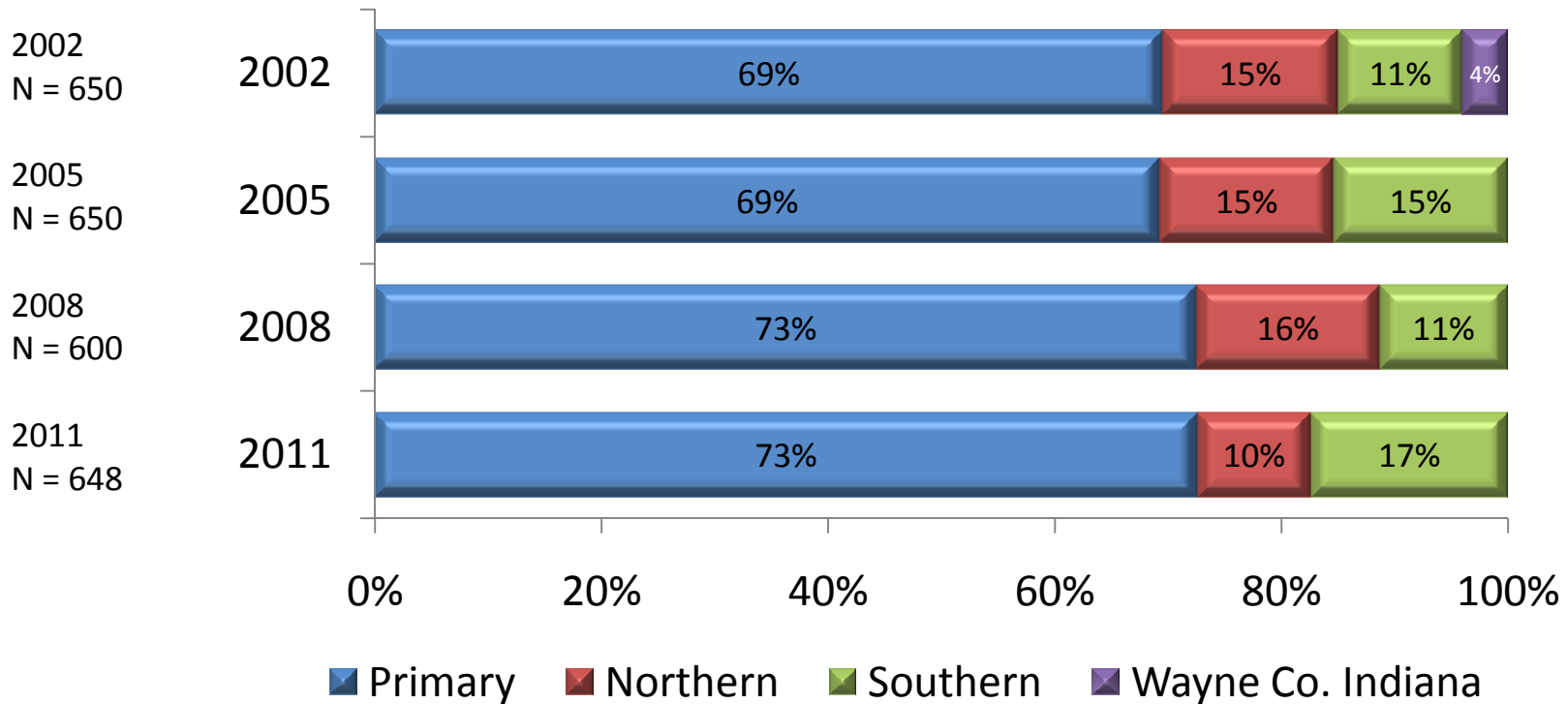


	Demographic Group	2008 Results	Un-weighted 2011 Results	Weighted 2011 Results	2009 Census for Miami Valley
Age	Under 5	39%	42%	34%	33%
	Ages 6-10	35%	35%	34%	34%
	Ages 11-14	27%	22%	32%	33%
Gender	Boys	53%	57%	51%	51%
	Girls	47%	43%	49%	49%
Income	Above 200% Poverty	30%	28%	34%	33%
	Below 200% Poverty	70%	72%	66%	67%
Ethnicity	White	85%	83%	84%	85%
	African American	6%	6%	10%	12%
Total Sample		600	654	648	



# Survey Respondents by Region

Respondents by Hospital Service Area

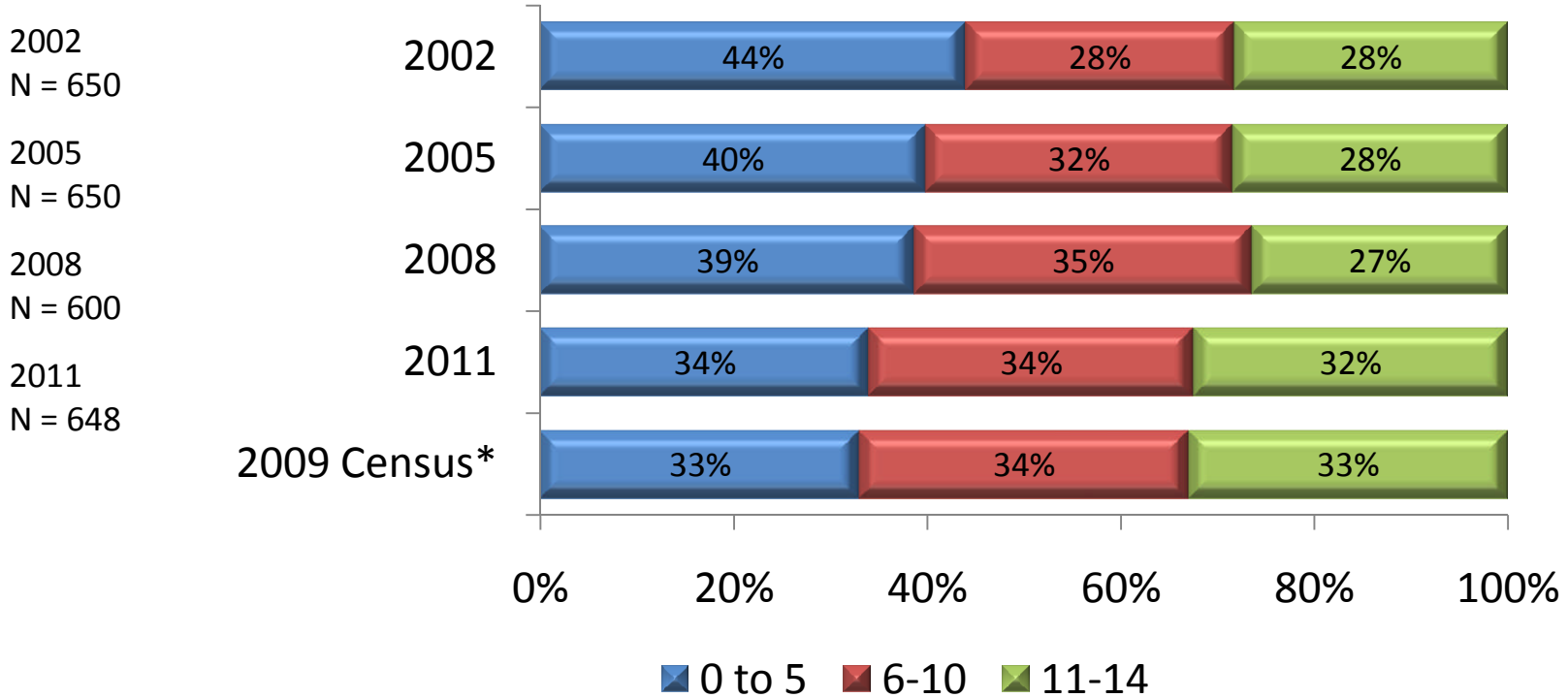


In all four waves of the study, approximately 70% of respondents came from the Dayton Children's Medical Center primary service area.

# Children's Ages



Child Age Group by Survey Year

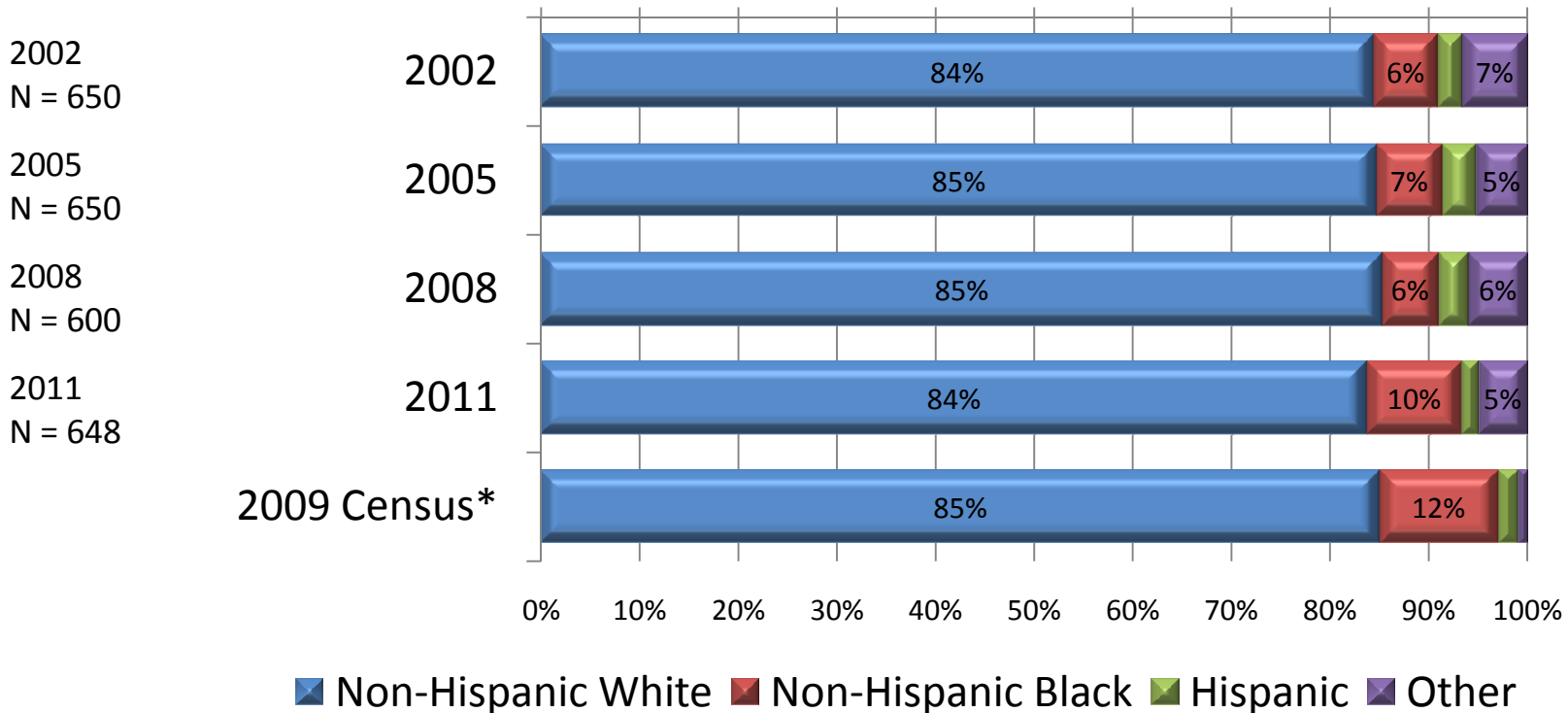


\*Based on 2009 Census results available for Allen, Butler, Clark, Greene, Miami, Montgomery and Warren Counties.

# Children's Ethnic Identity



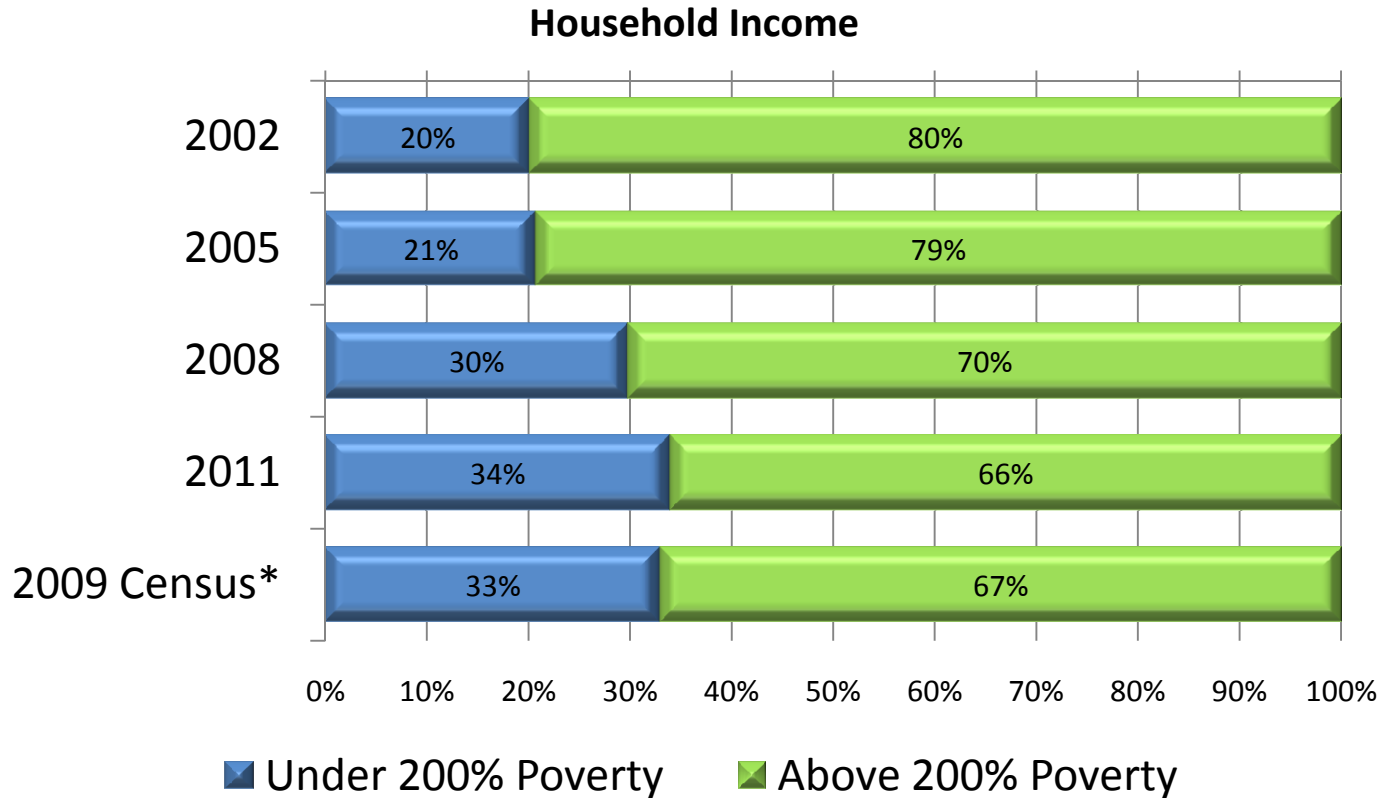
Child Ethnic Identity by Survey Year



\*Based on 2009 Census results available for Allen, Butler, Clark, Greene, Miami, Montgomery and Warren Counties.



# Household Income by 200% Poverty Level



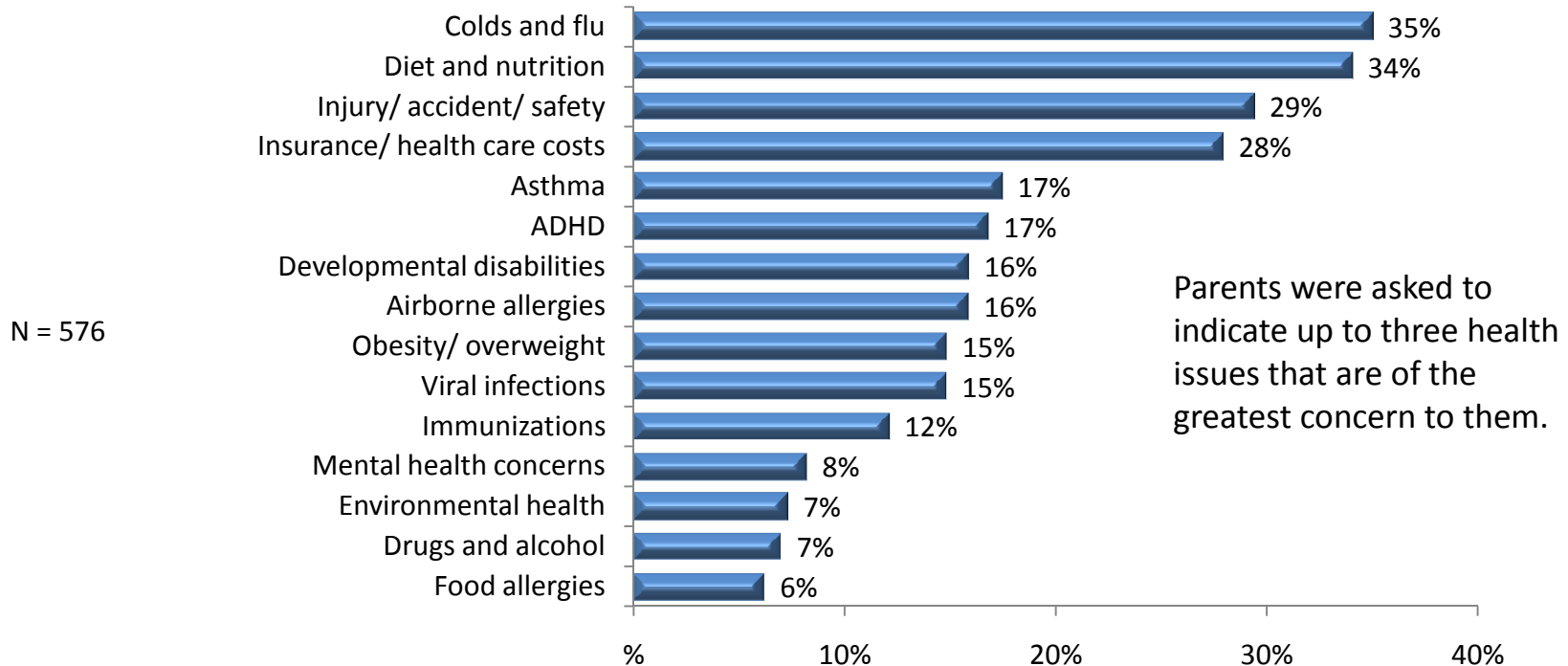
\*Based on 2009 Census results available for Allen, Butler, Clark, Greene, Miami, Montgomery and Warren Counties.





# Top Parental Health and Safety Concerns

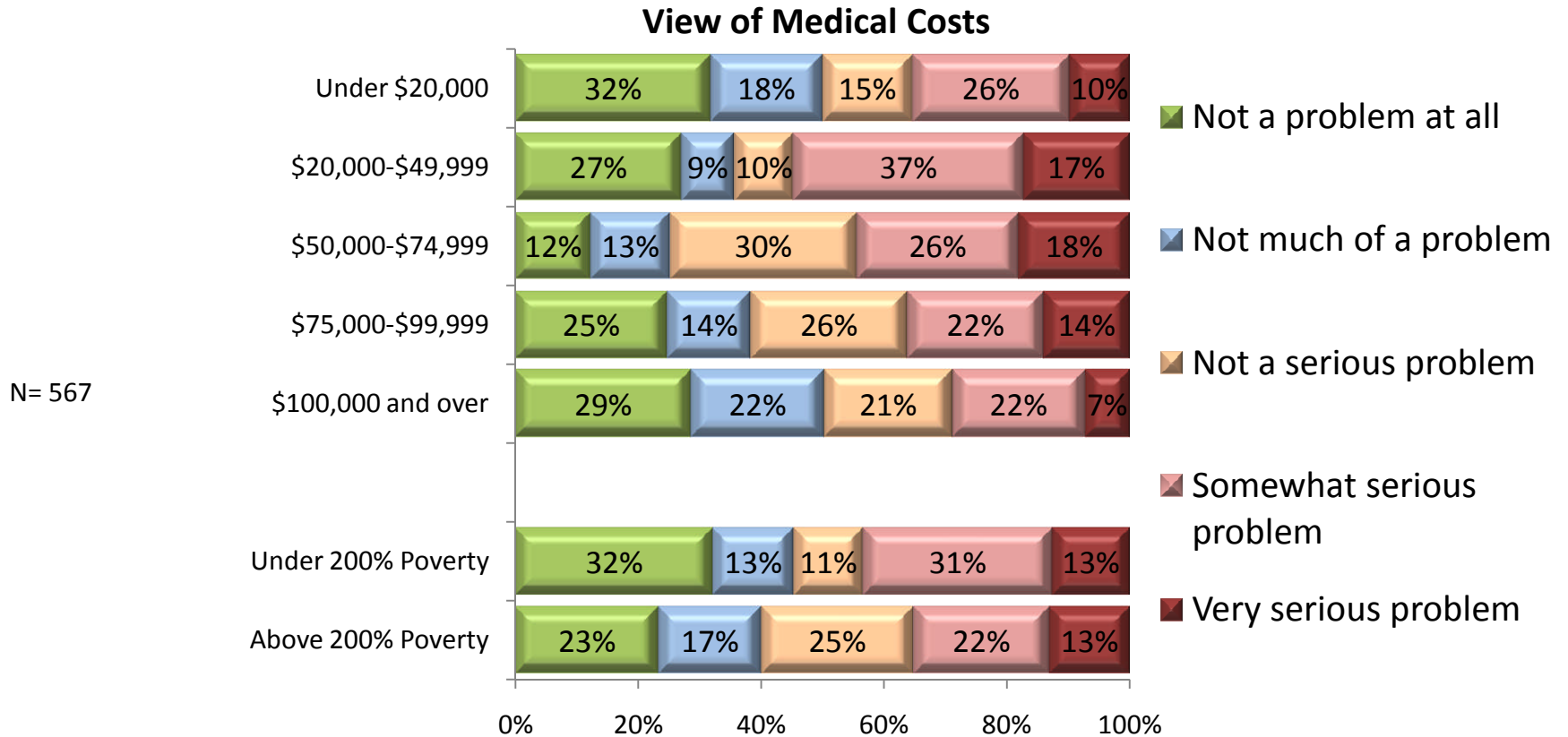
**Top Parental Health Concerns**



Parents of boys are more likely to be concerned about asthma (21% vs. 14%) and developmental disabilities (19% vs. 13%) than are parents of girls . Parents of girls are more likely than parents of boys to be concerned about viral infections (18% vs. 12%). Parents with incomes below 200% of poverty are more likely to be concerned about asthma (21% vs. 15%) and ADHD (27% vs. 11%) than are parents above 200% of poverty , while wealthier parents are more likely to be concerned about diet and nutrition (37% vs. 27%) than are parents living below the 200% of poverty threshold.



# View of Medical Costs by Income

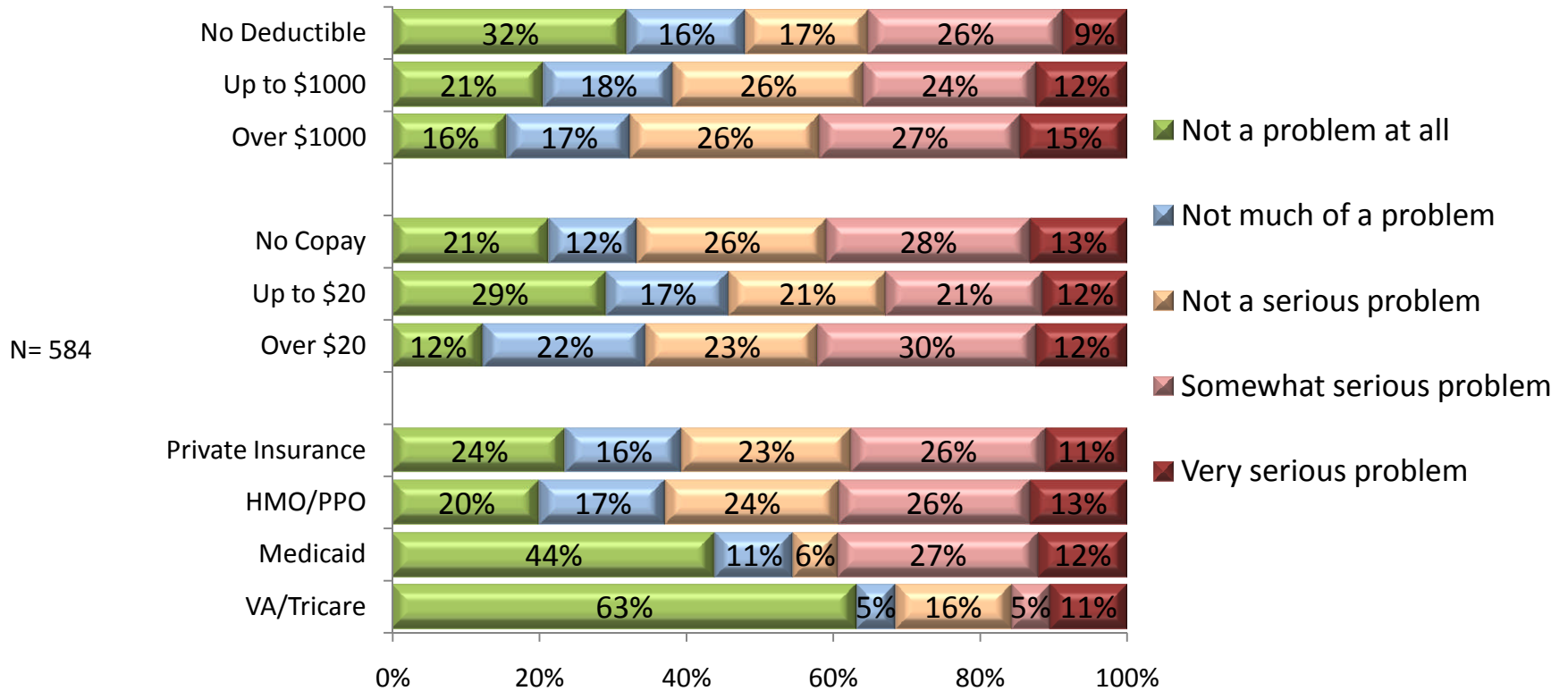


Middle income parents are significantly more likely to view high medical costs as a problem than are either low income or high income parents.



# View of Medical Costs by Insurance Factors

**View of Medical Costs**

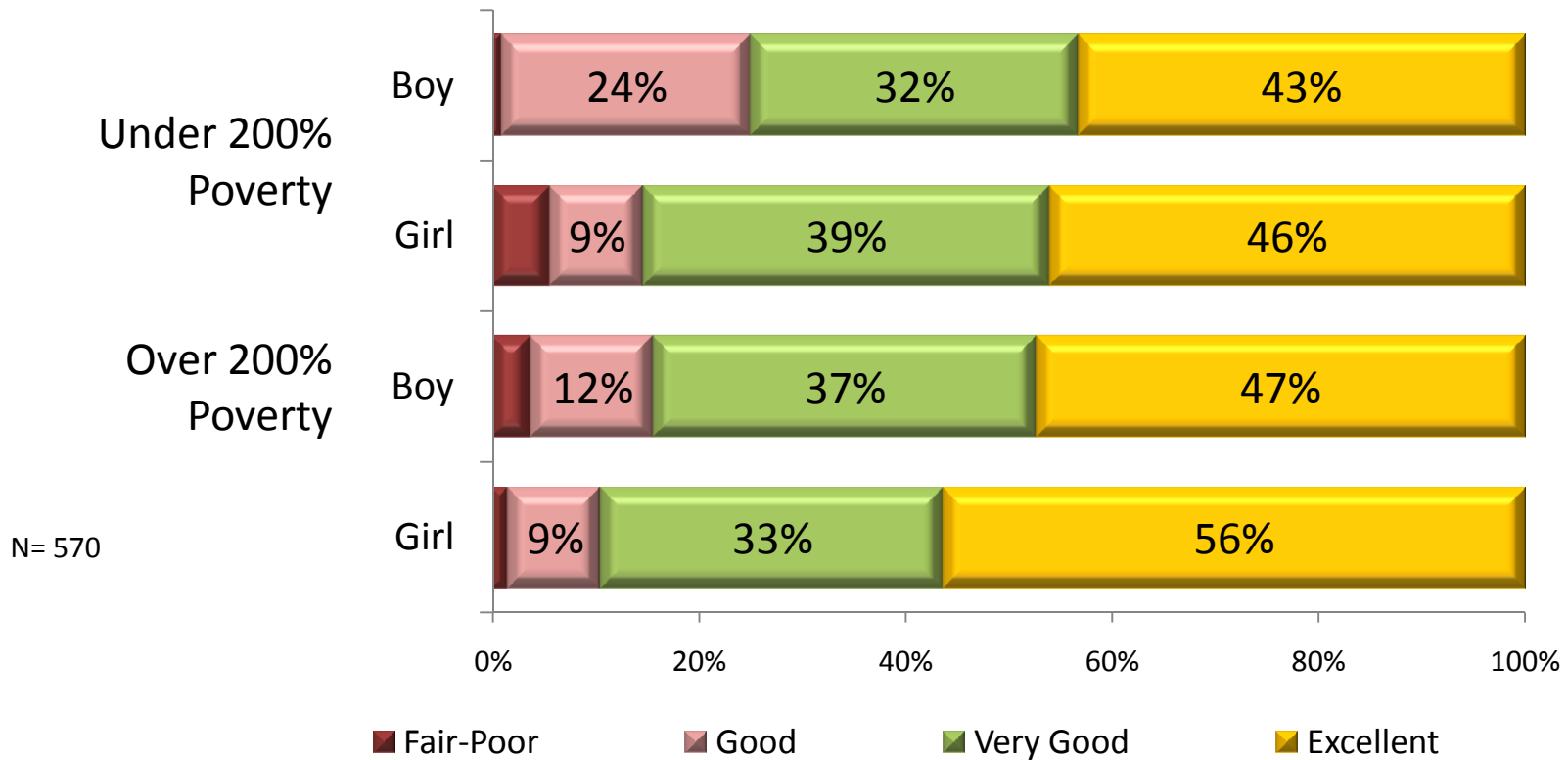


Parents with higher deductibles and co-pays and those who use private insurance are significantly more likely to see high medical care costs as a problem than are parents with lower deductibles and co-pays or those who receive Medicaid or military health care.



# Child's General Health by Income

**Child's Overall Health**



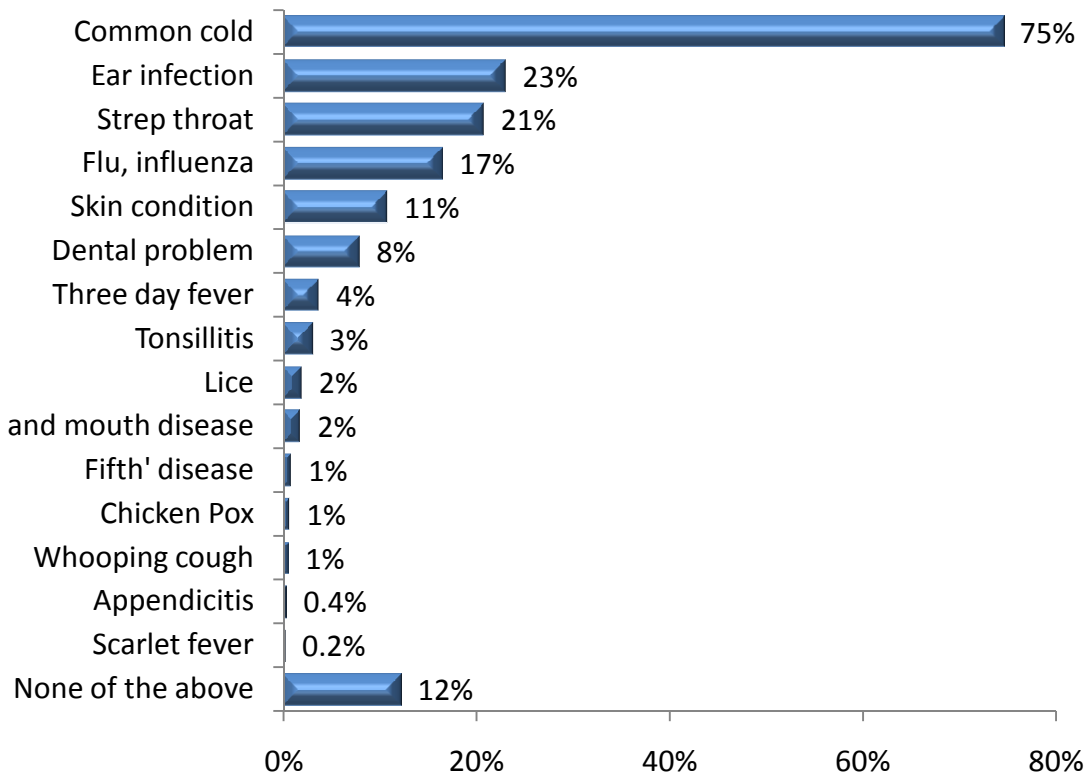
Boys from lower income households are significantly less likely to be considered by their parents to be in very good or excellent health than are either boys from higher income households or girls at any income level.

# Childhood Ailments



Has this child had any of the following common childhood ailments during the past 12 months?

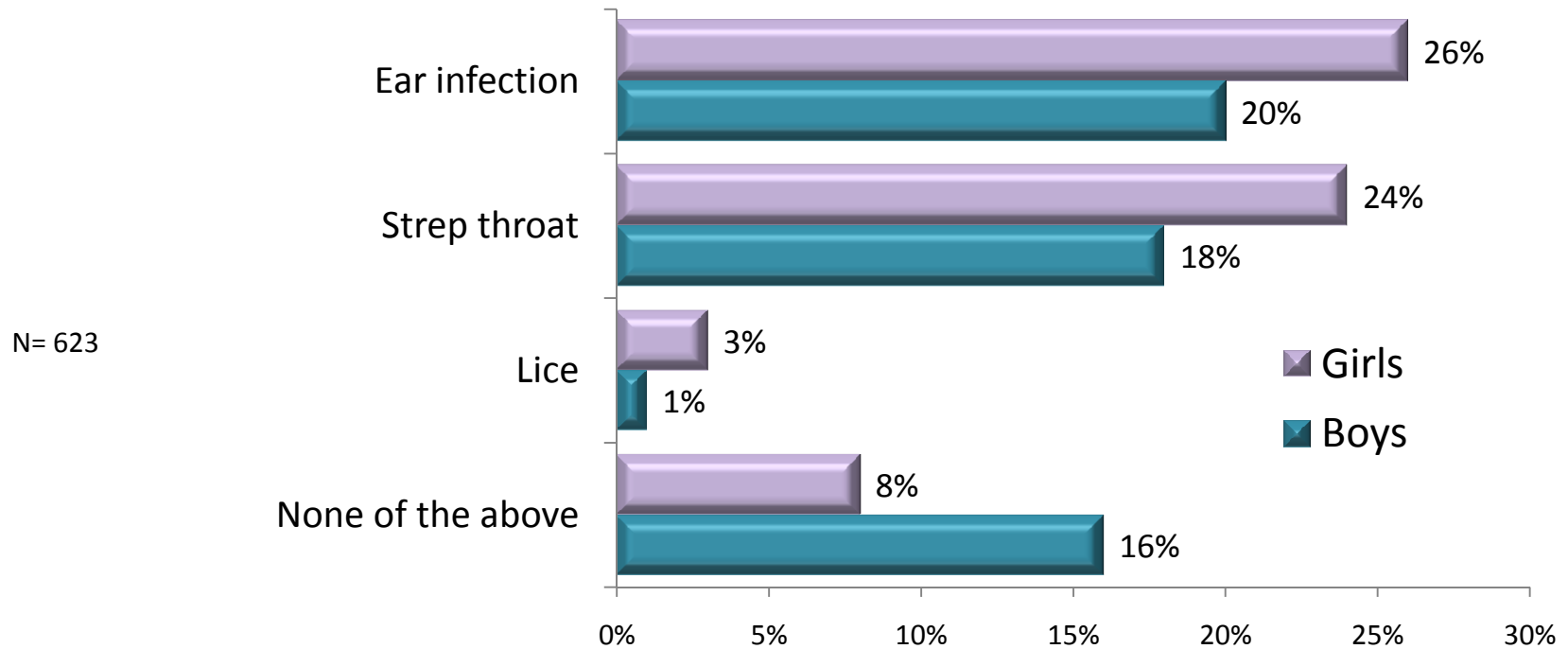
N= 623





# Common Childhood Ailments by Gender

Has this child had any of the following common childhood ailments during the past 12 months?



Girls were significantly more likely to have had ear infections, strep throat and lice. Boys were significantly more likely than girls to have had no common childhood ailments.

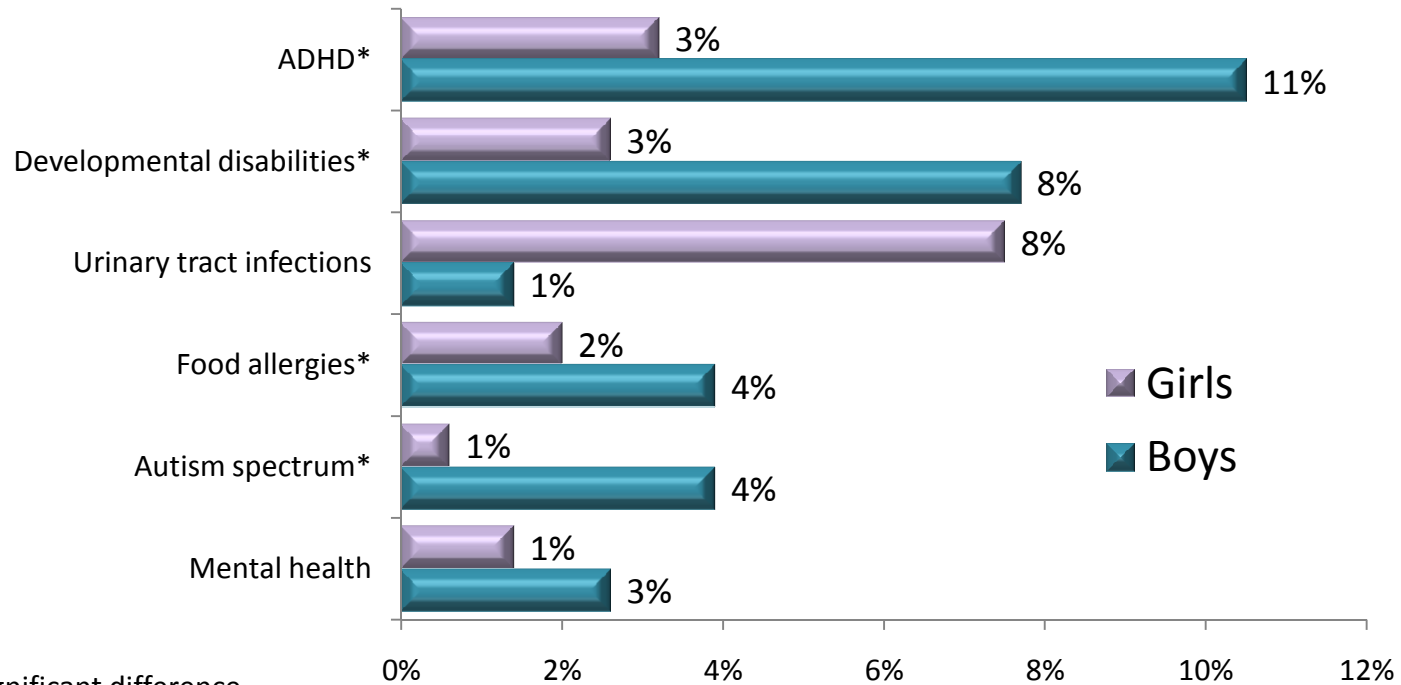
# Children's Use of Prescribed Medications



Use of Medications by Age, Gender and Income	Gender			Age Group			Income	
	Total	Boys	Girls	0 to 5 Years	6 to 10 Years	11 to 14 Years	Under 200% Poverty	Above 200% Poverty
None	79%	77%	82%	89%	75%	75%	76%	81%
Asthma medication	8%	9%	8%	6%	9%	10%	7%	9%
ADHD medication	5%	7%	3%	0%	9%*	6%	8%	3%
Allergy medicine	3%	3%	3%	2%	4%	3%	3%	3%
Sleep aids	2%	2%	1%	1%	3%*	1%	4%	1%
Insulin	1%	1%	1%	0%	1%	2%	2%	1%
Antipsychotics	1%	1%	1%	0%	1%	1%	1%	0%
Antidepressants	1%	1%	.3%	0%	1%	1%	1%	1%
Other	5%	6%	4%	5%	6%	6%	5%	6%
<b>Total</b>	<b>609</b>	<b>312</b>	<b>297</b>	<b>202</b>	<b>208</b>	<b>199</b>	<b>194</b>	<b>371</b>
		Shading indicates statistically significantly higher rate for the group.						

# Special Conditions by Gender

Has this child been treated by a medical doctor for any of the following special health care issues within the past 12 months?



Boys are significantly more likely to have developmental and autism spectrum disabilities, mental health issues, ADHD and food allergies. Girls are significantly more likely to have urinary tract infections.



## Top 10 Reasons for Emergency Care



Reason for Emergency Care	Location of Emergency Visit			
	Total	Doctor's office	Hospital Emergency Room	Urgent Care Center
Earache	23%	29%	13%	29%
Cough	21%	36%	16%	15%
High fever	18%	24%	22%	14%
Throat	16%	19%	11%	25%
Upper Respiratory Infection	13%	20%	11%	16%
Vomiting	10%	11%	15%	6%
Broken arm	8%	6%	11%	7%
Abdominal pain	7%	7%	11%	6%
Flu	7%	9%	8%	9%
Asthma attack	6%	7%	5%	5%
		Shading indicates statistically significantly higher rate for the group.		

Total Cases  
N = 231

Doctor's Office  
N = 91

Emergency Room  
N = 104

Urgent Care Center  
N = 93

# Children's Activities Leading to Injury



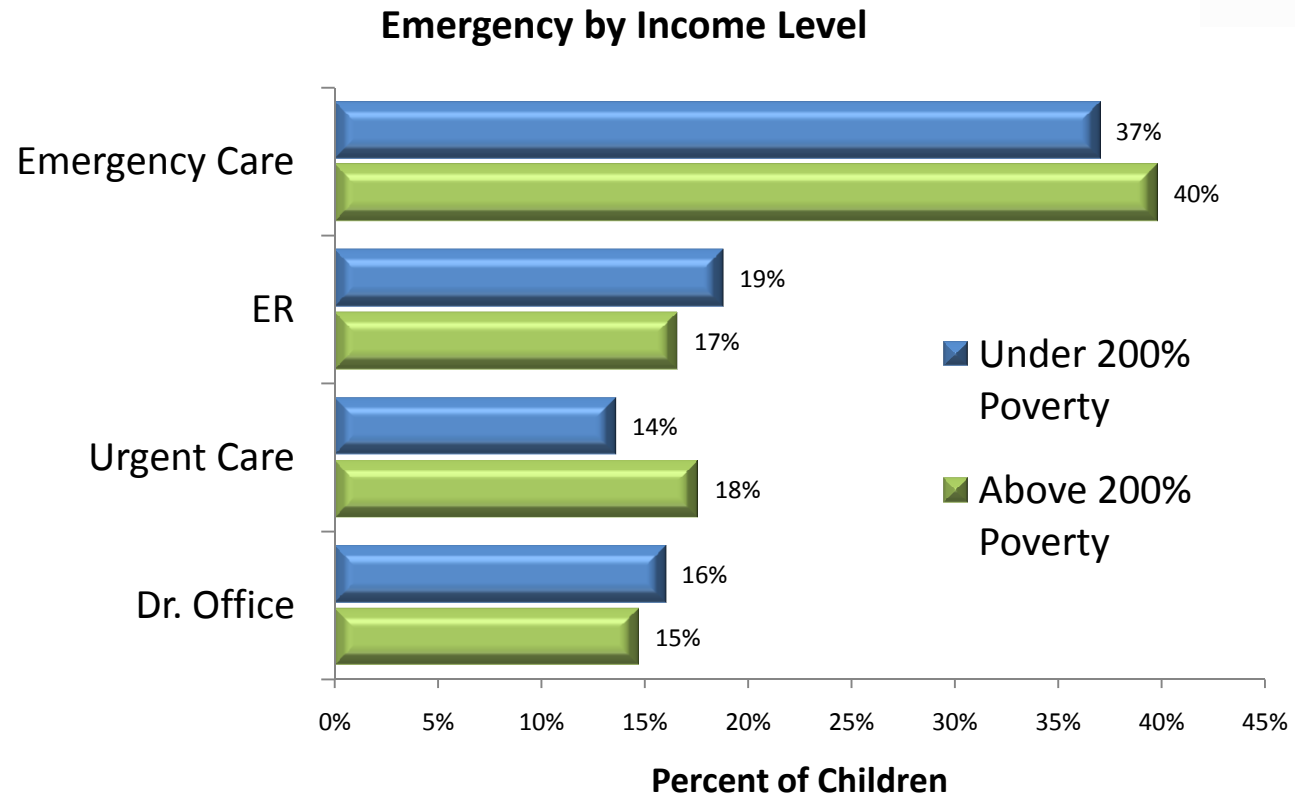
What was the child doing when emergency occurred?	Sprain		Break		Injury			Needed Stitches	Dental Injury	Difficulty breathing	Total
	Arm/Hand	Leg/Foot	Arm	Leg	Eye	Face	Head				
<b>General play</b>	18%	43%	27%	41%	21%	56%	21%	34%	0%	45%	31%
<b>Organized sports</b>	55%	67%	41%	33%	0%	16%	22%	12%	0%	0%	25%
<b>Household accident</b>	7%	10%	17%	27%	46%	29%	23%	39%	100%	19%	25%
<b>School activity</b>	21%	23%	23%	0%	0%	0%	38%	12%	0%	36%	19%
<b>Unsupervised sports</b>	11%	0%	0%	0%	0%	0%	21%	15%	0%	0%	6%
<b>Car accident</b>	12%	13%	8%	0%	33%	0%	0%	0%	0%	0%	3%
<b>Bike riding</b>	12%	13%	8%	0%	0%	0%	0%	0%	0%	0%	2%
<b>Total Cases = 65</b>	10	9	14	3	3	7	11	11	3	8	65

Parents could give more than one response so percentages may sum to more than 100.



# Emergency Care and Income

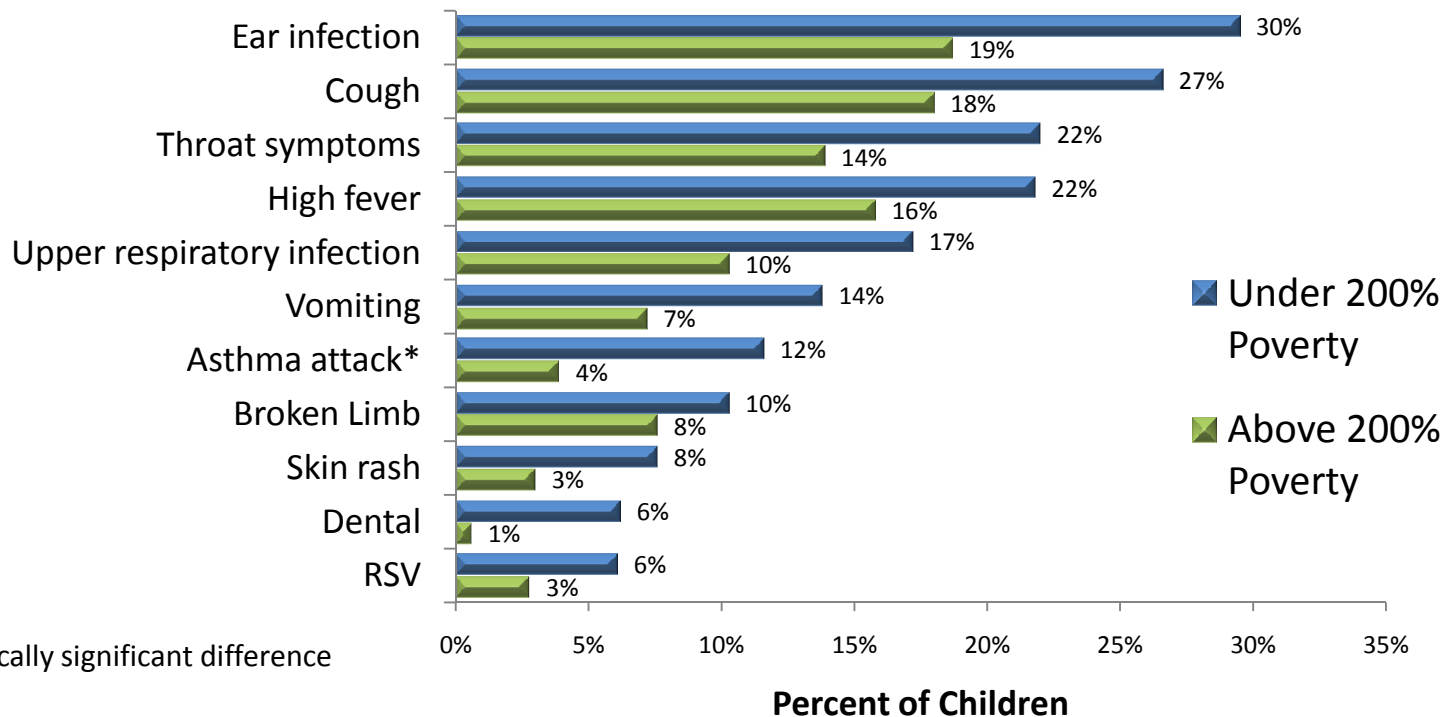
N= 566



Children do not differ by income level in their need for emergency care or the type of facility they use for emergency care.

# Emergency Care and Income (a)

**Type of Emergency Care by Income Level**



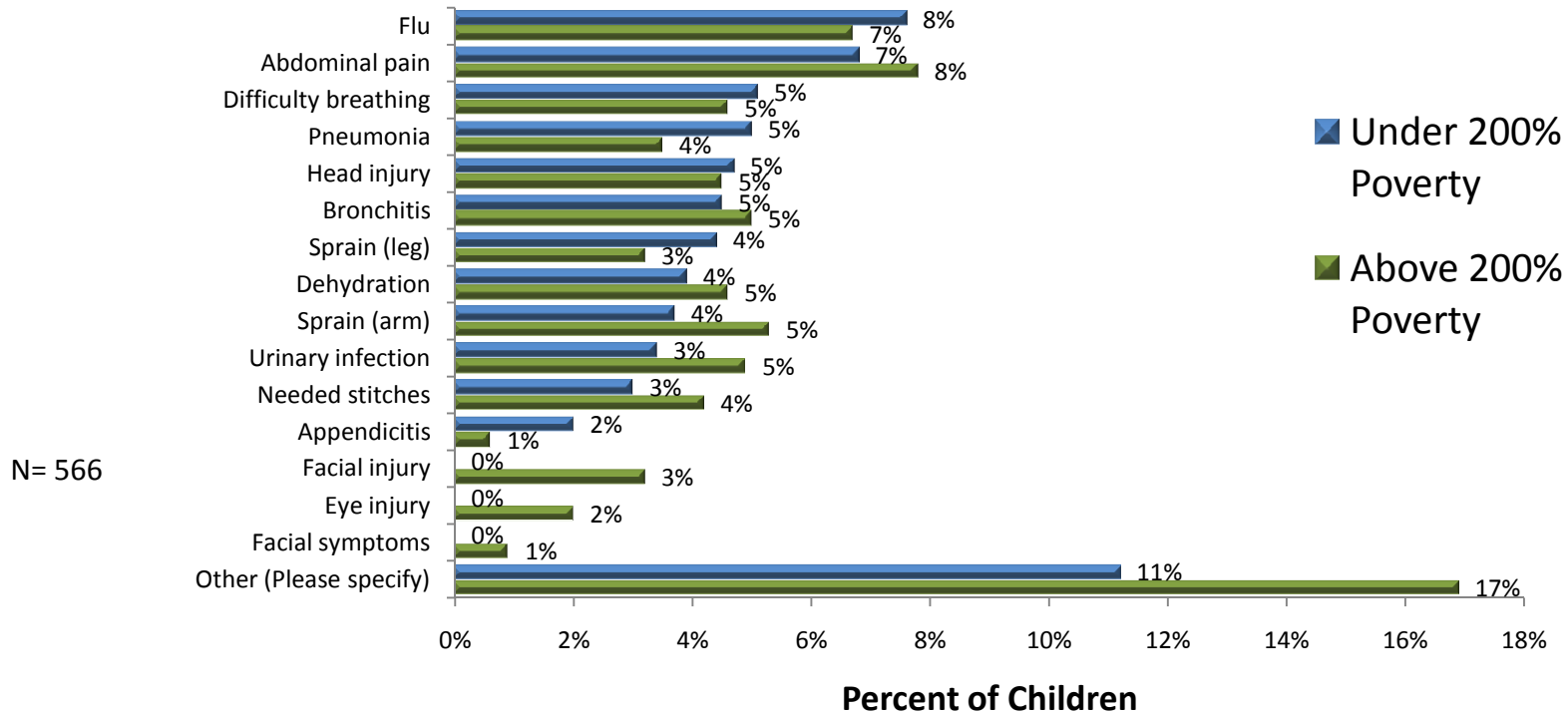
N= 566

\*= Statistically significant difference

While children do not differ overall in their frequency of use of emergency services, children from lower income households appear more likely to use emergency services for a number of conditions. Only asthma attack showed a statistically significant difference, however a significant trend is clear across a number of illnesses.

# Emergency Care and Income (b)

**Type of Emergency Care by Income Level**

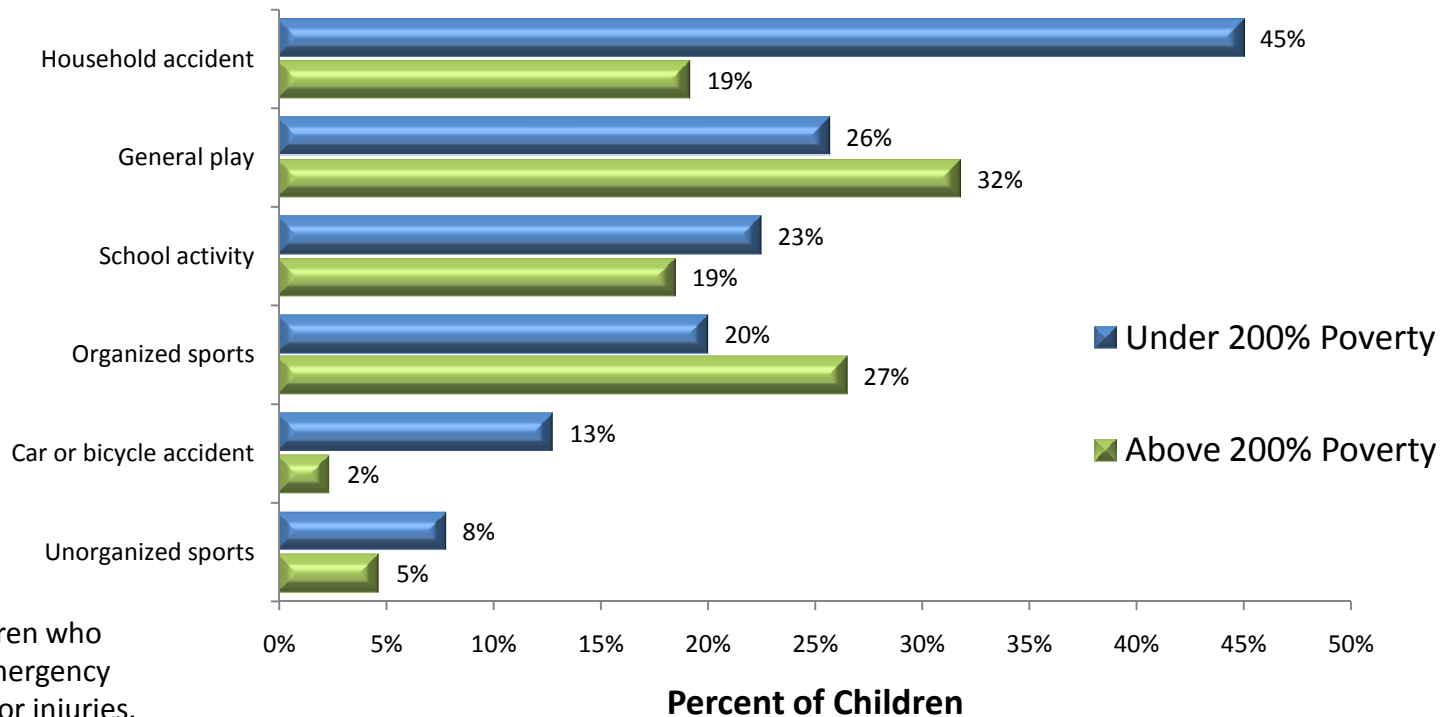


Children from higher income households use emergency services more often than children from lower income households only for a few less frequent conditions. None of these differences were statistically significant. Children from higher income households were more likely to use emergency services for a variety of other reasons.

# Emergency Care and Income



**Child Activity/Emergency Care by Income Level**

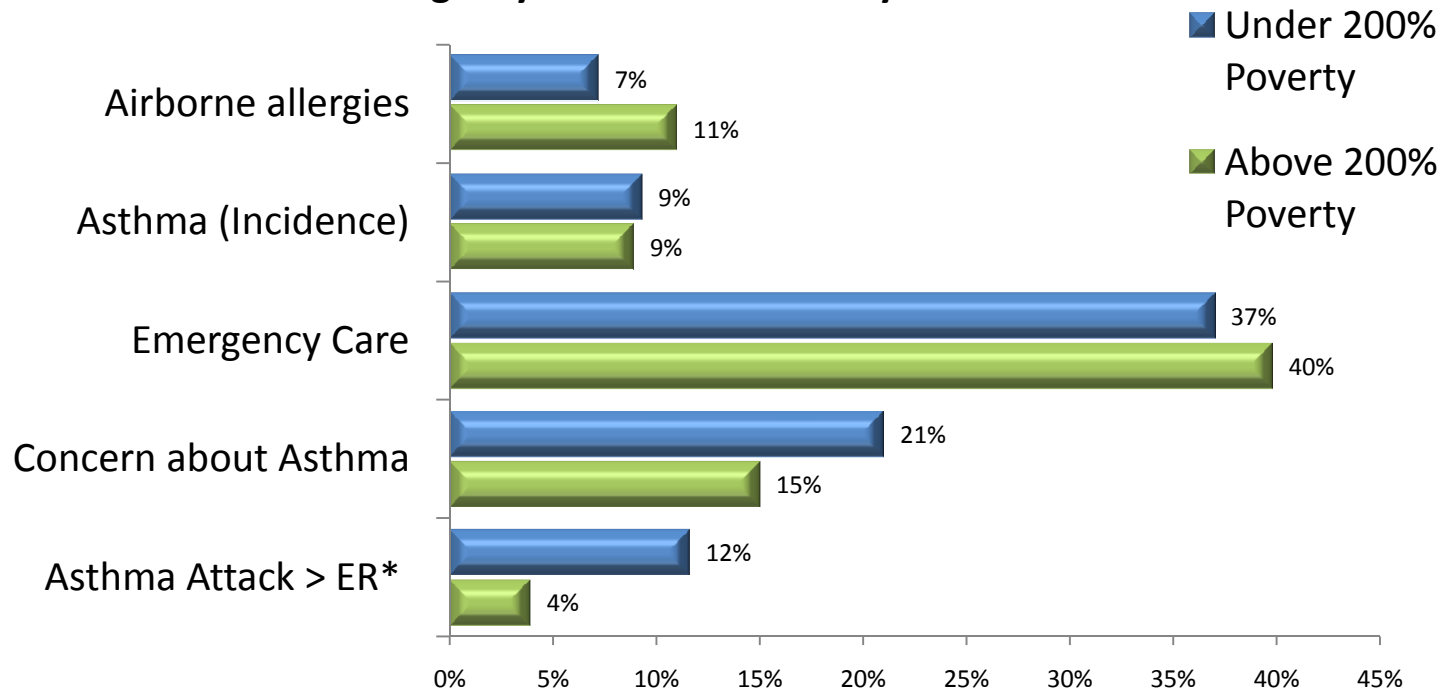


Children from households with incomes less than 200% of federal poverty levels were more than twice as likely to experience a household accident that led to emergency treatment.

# Emergency Care and Income



Emergency Care and Asthma by Income Level



N = 625 Total children

N = 233 Children receiving emergency care

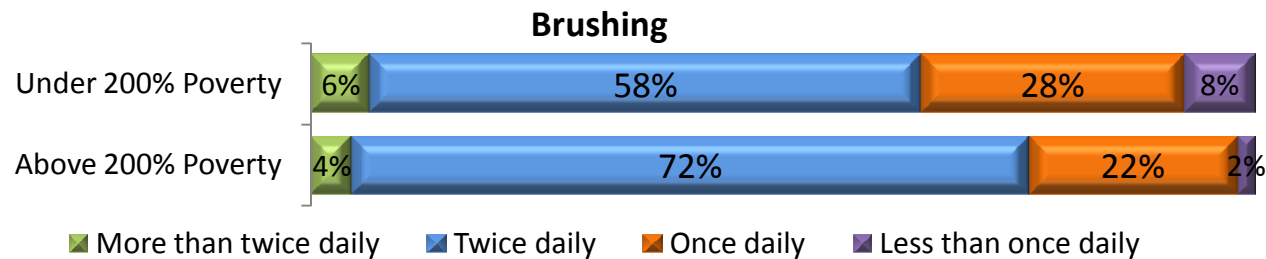
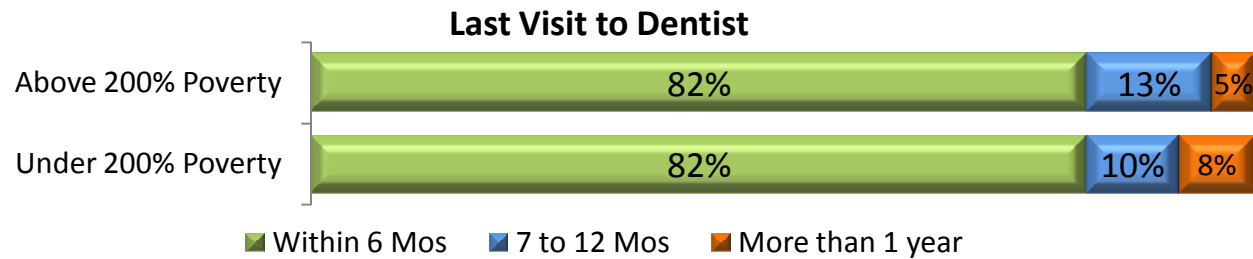
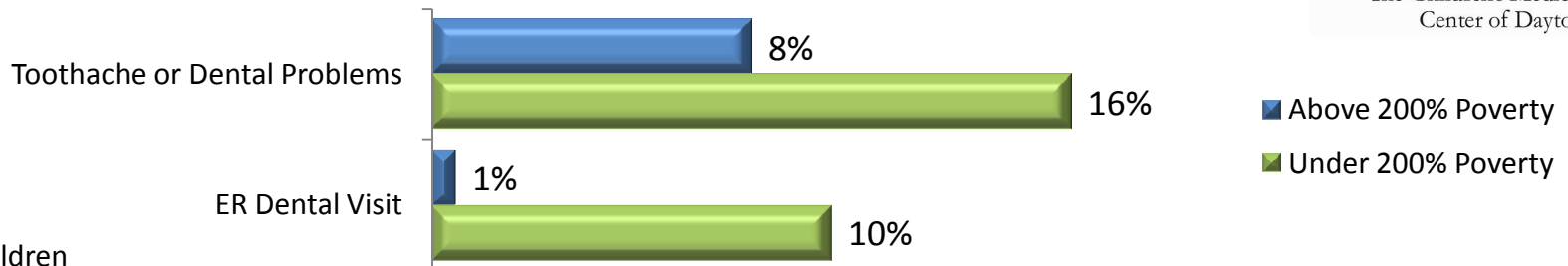
\*= Statistically significant difference

Children do not differ by income level in the incidence of either asthma or airborne allergies nor in overall use of emergency services. However, lower income parents do use emergency services significantly more often for asthma attacks and are more concerned about asthma as an issue than are higher income parents.



# Dental Issues by Income

N= 387 children between the ages of 6 and 14



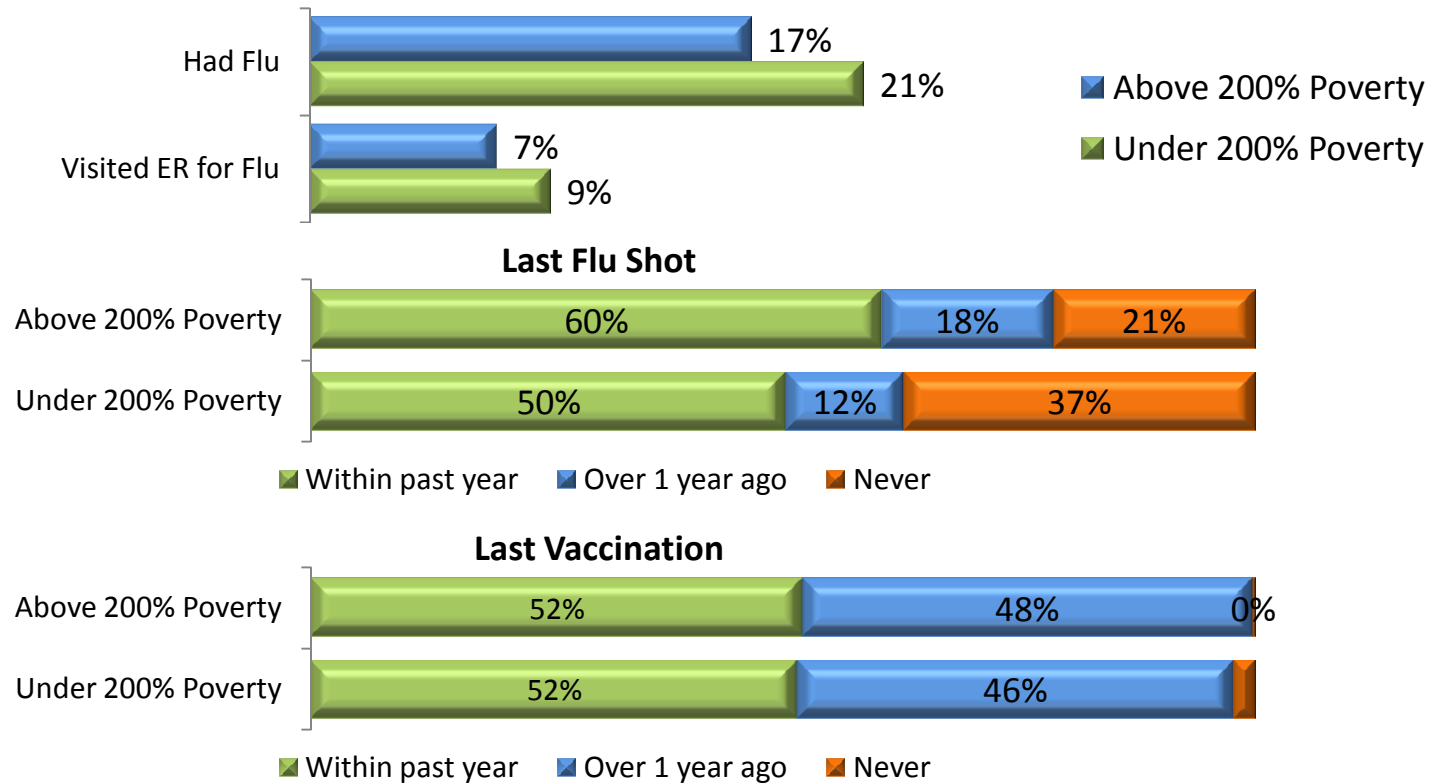
Children from households below 200% of poverty are significantly more likely to have toothaches or other dental problems and to use emergency services for them. They are also significantly more likely to brush less often. Children do not differ by income in the frequency with which they visit the dentist for checkups.





# Influenza by Income

N= 383 children between the ages of 6 and 14

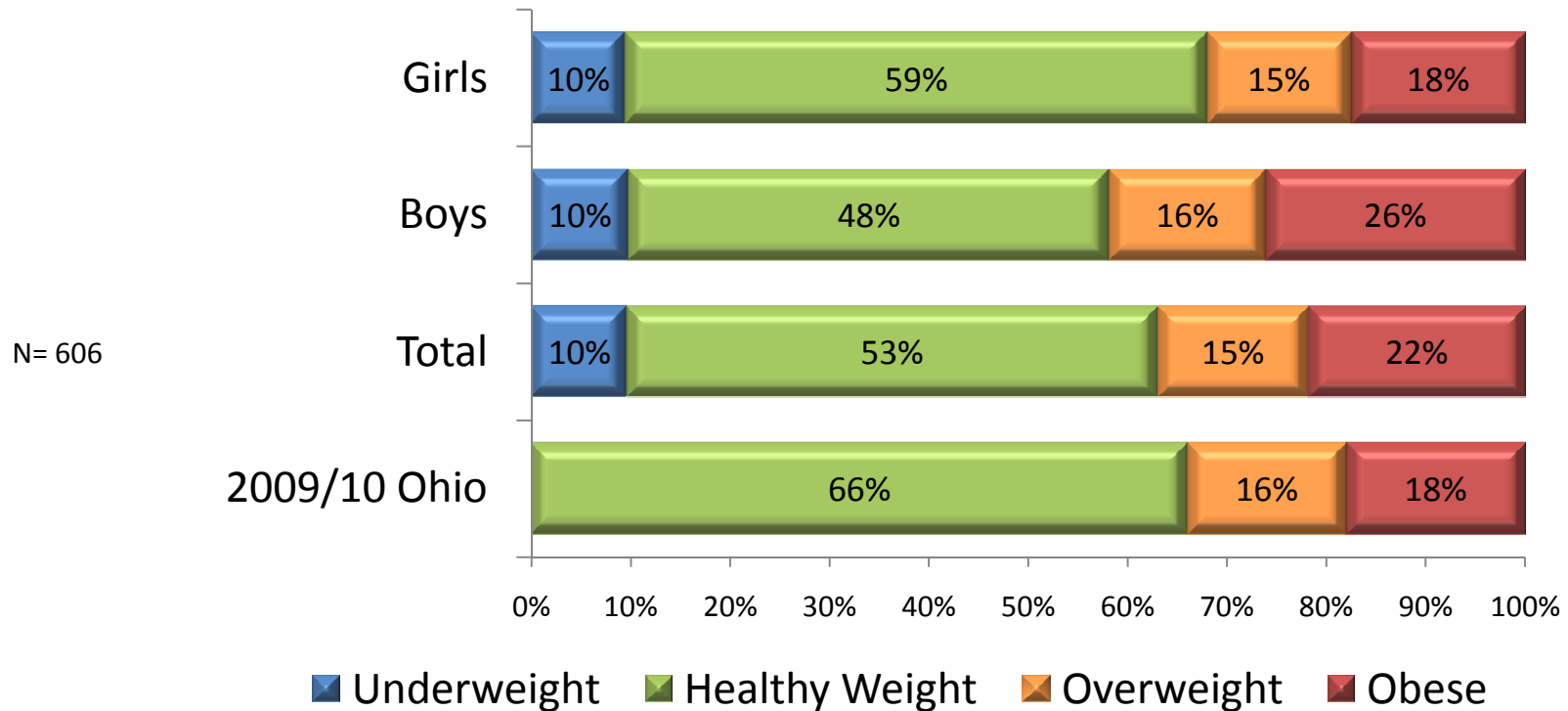


Children from households below 200% of poverty are significantly more likely to have never had a flu shot. They are also slightly more likely to have had the flu in the past year and to have used emergency services for the flu. Children did not differ by income in the frequency with which they have had vaccinations.



# Overweight, Obesity and Underweight

Percent Underweight and Overweight

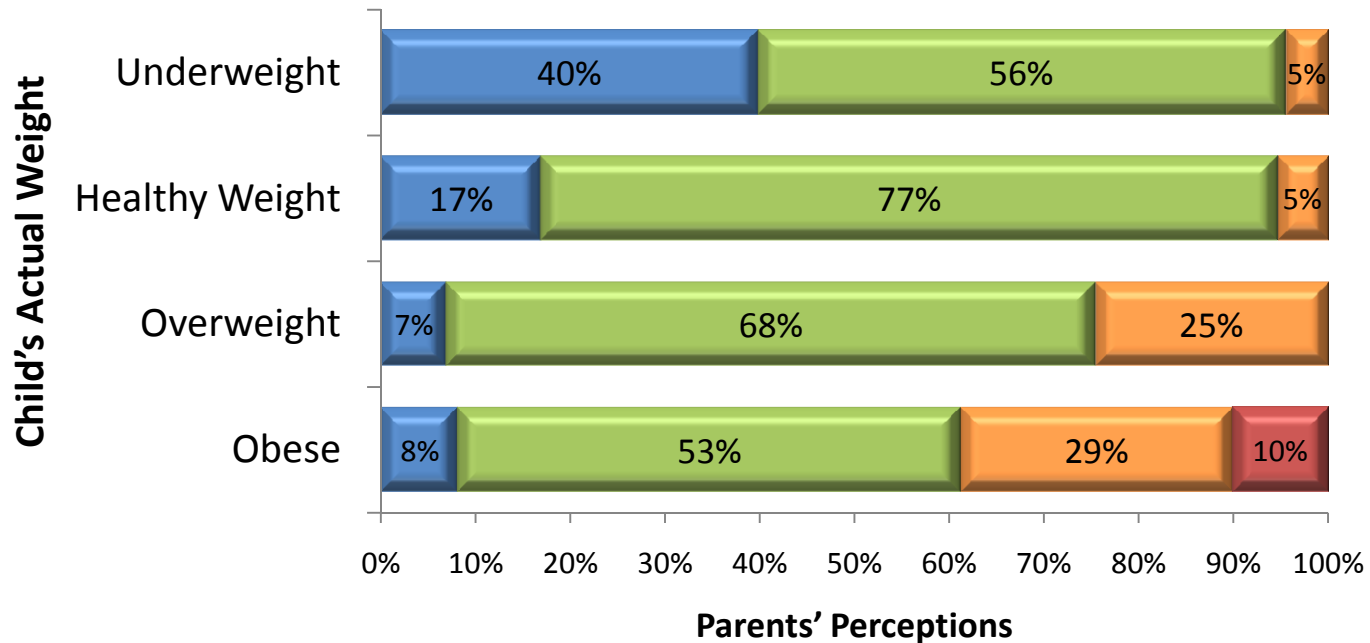


Based on child's age, height and weight. 5<sup>th</sup> percentile and under qualify as underweight. 85<sup>th</sup> percentile to 95<sup>th</sup> percentile count as overweight. 95<sup>th</sup> percentile and over count as obese. 2009/10 Ohio figures are from the "2004-2010 Third Grade BMI Report", Ohio Department of Health, based on measures of 3rd graders across the state of Ohio and do not include figures for underweight children.



# Parents' Perceptions of Child's Weight

Parental Perception by BMI Percentile Group



N= 578

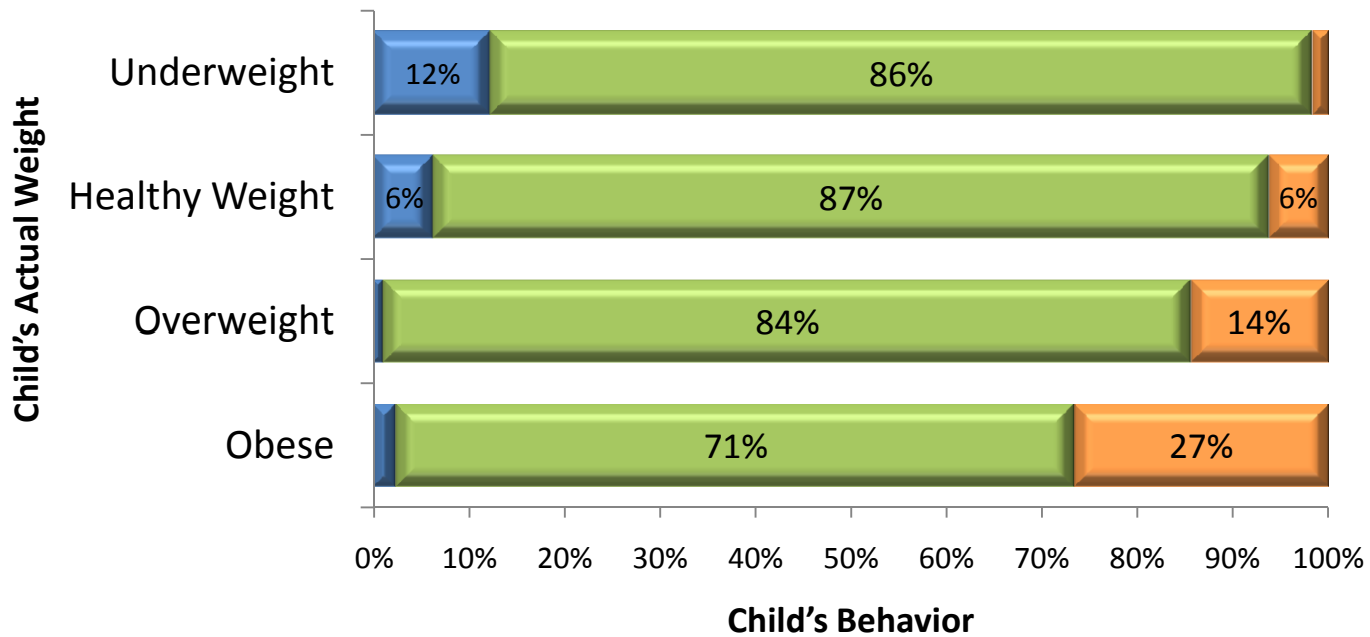
■ Underweight ■ About the right weight ■ Slightly overweight ■ Very overweight

Parents were asked to indicate whether they think their child is underweight, about the right weight, slightly overweight or very overweight. The majority of parents of overweight and obese children do not perceive their children as having any weight problem. Between 7% and 8% of parents of overweight and obese children believe that their children are underweight and 5% of parents of underweight children believe that their child is overweight.

# Children's Activities to Change Their Weight



Child Weight Related Behavior by BMI Percentile Group



N= 573

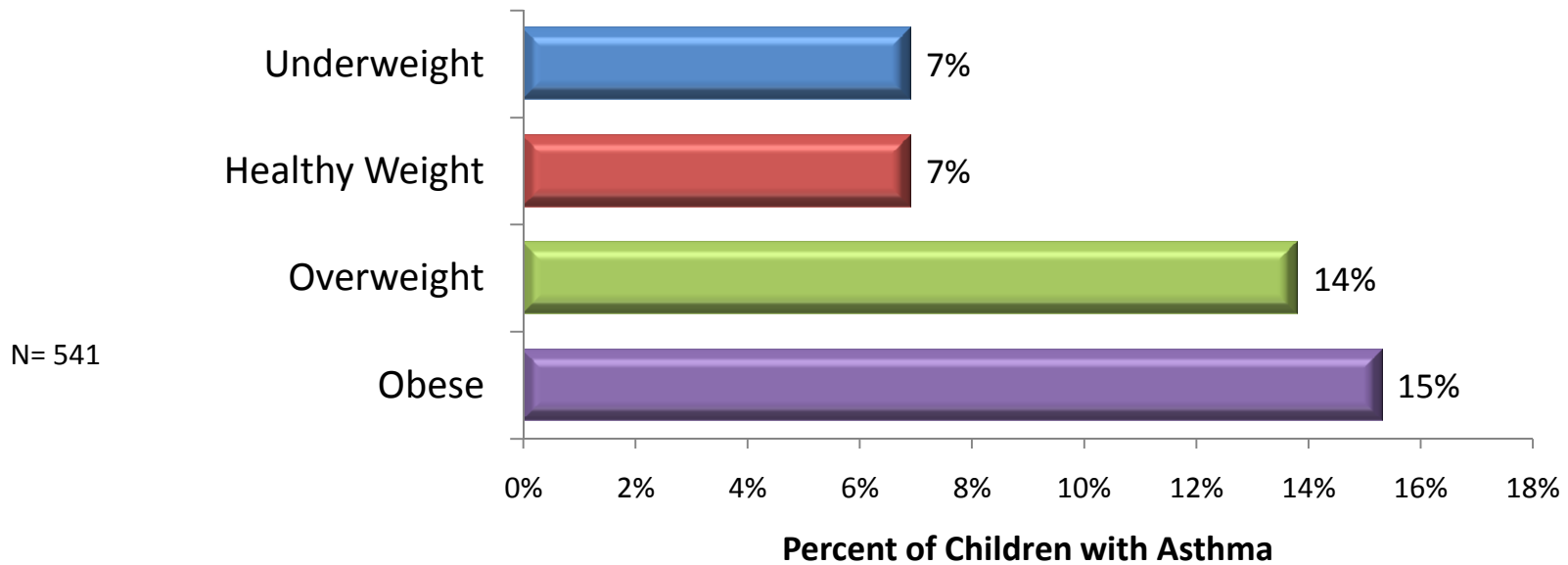
■ Trying to Gain Weight   ■ Not Doing Anything   ■ Trying to Lose Weight

The majority of underweight, overweight and obese children are not doing anything to change their weight. Parents were asked whether their child was trying to lose weight by either dieting or exercising or to gain weight. About half of children who are trying to lose weight do so by restricting caloric intake (dieting), about half do so by exercising more and about 20% do both.

# Overweight and Asthma



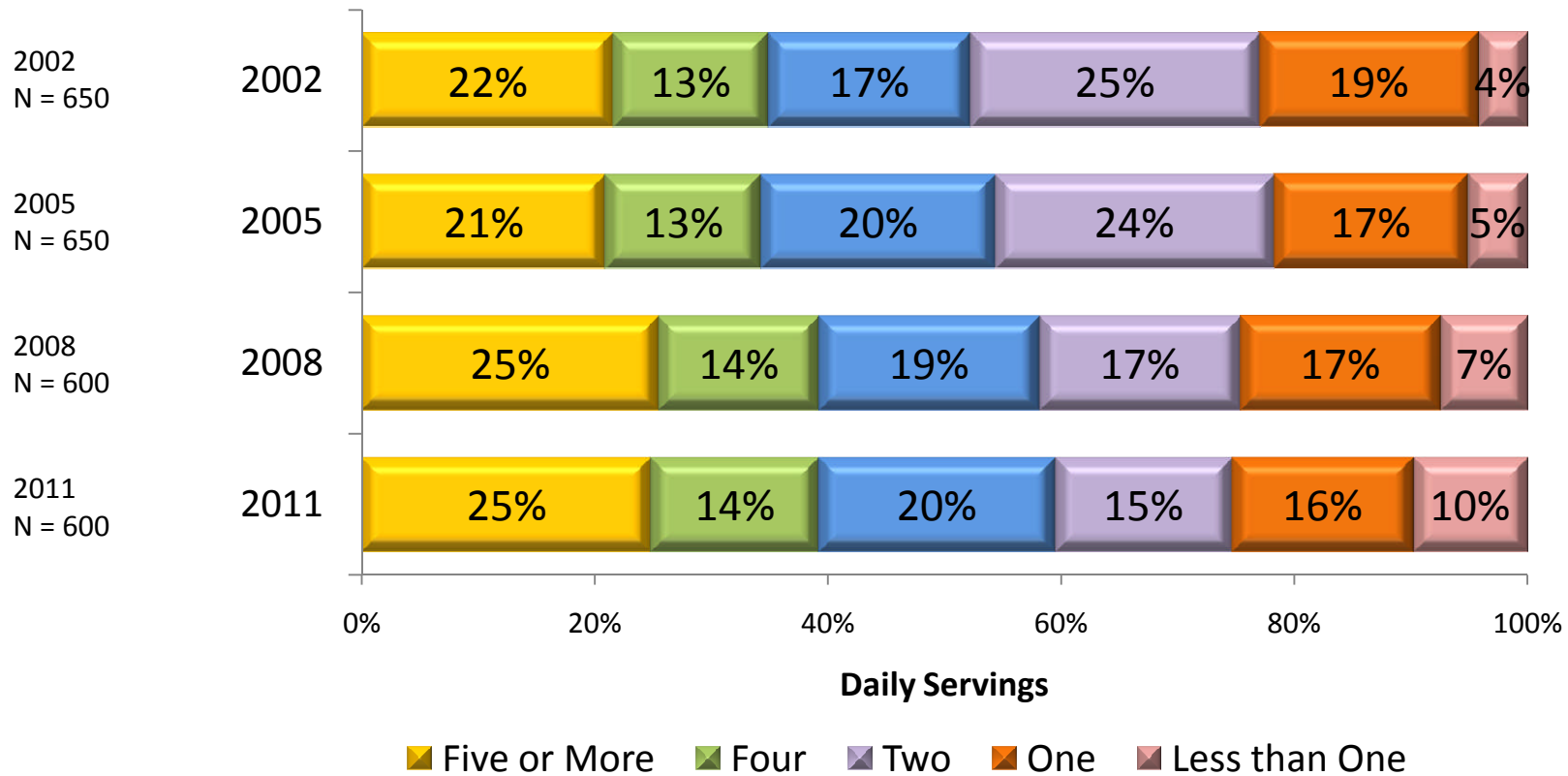
**Asthma by BMI Percentile Group**



Overweight and obese children are significantly more likely to have asthma.

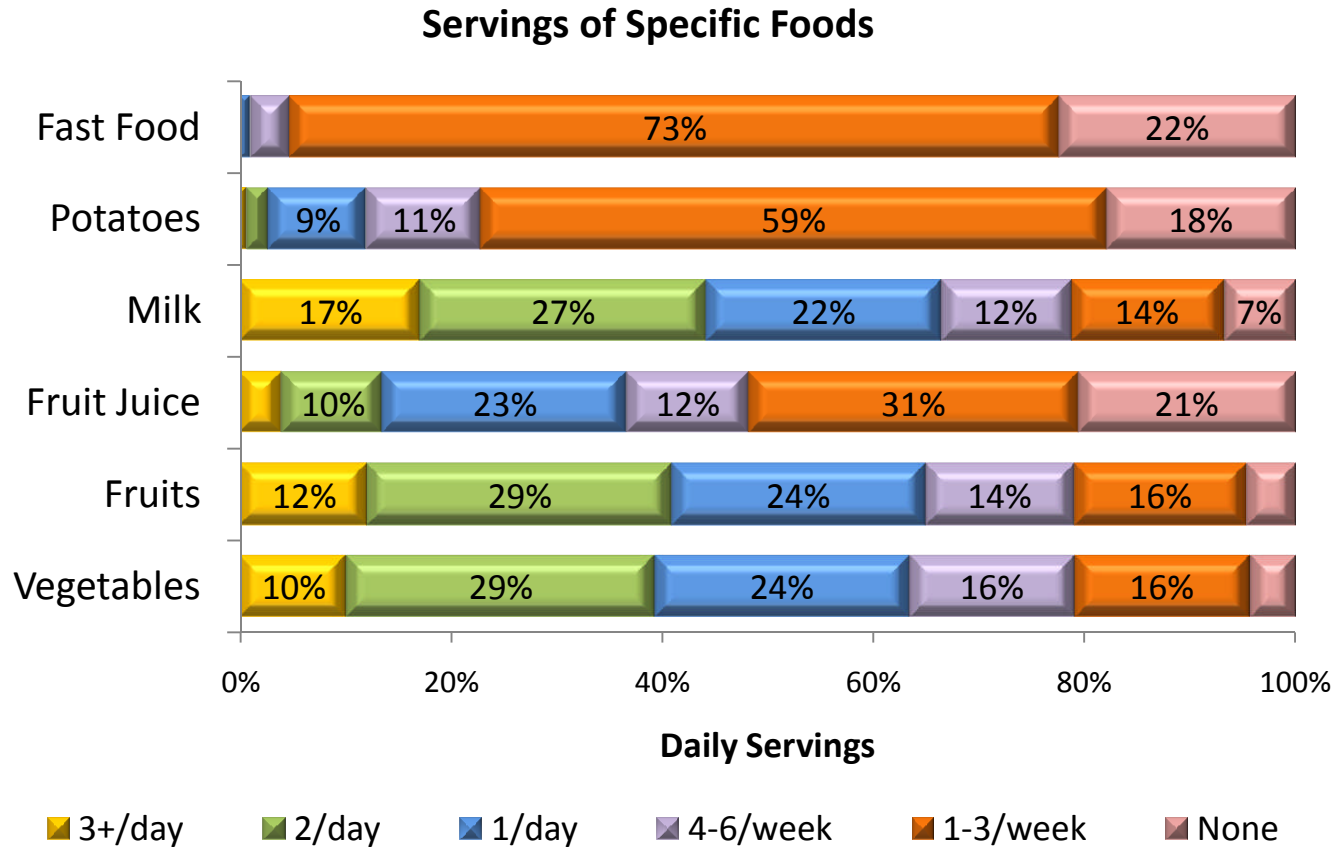
# Daily Servings of Fruits and Vegetables

Servings of Fruits and Vegetables Per Week



The proportion of children who eat five or more portions of fresh fruits and vegetables daily has not changed since the 2008 study.

# Daily Servings Specific Foods

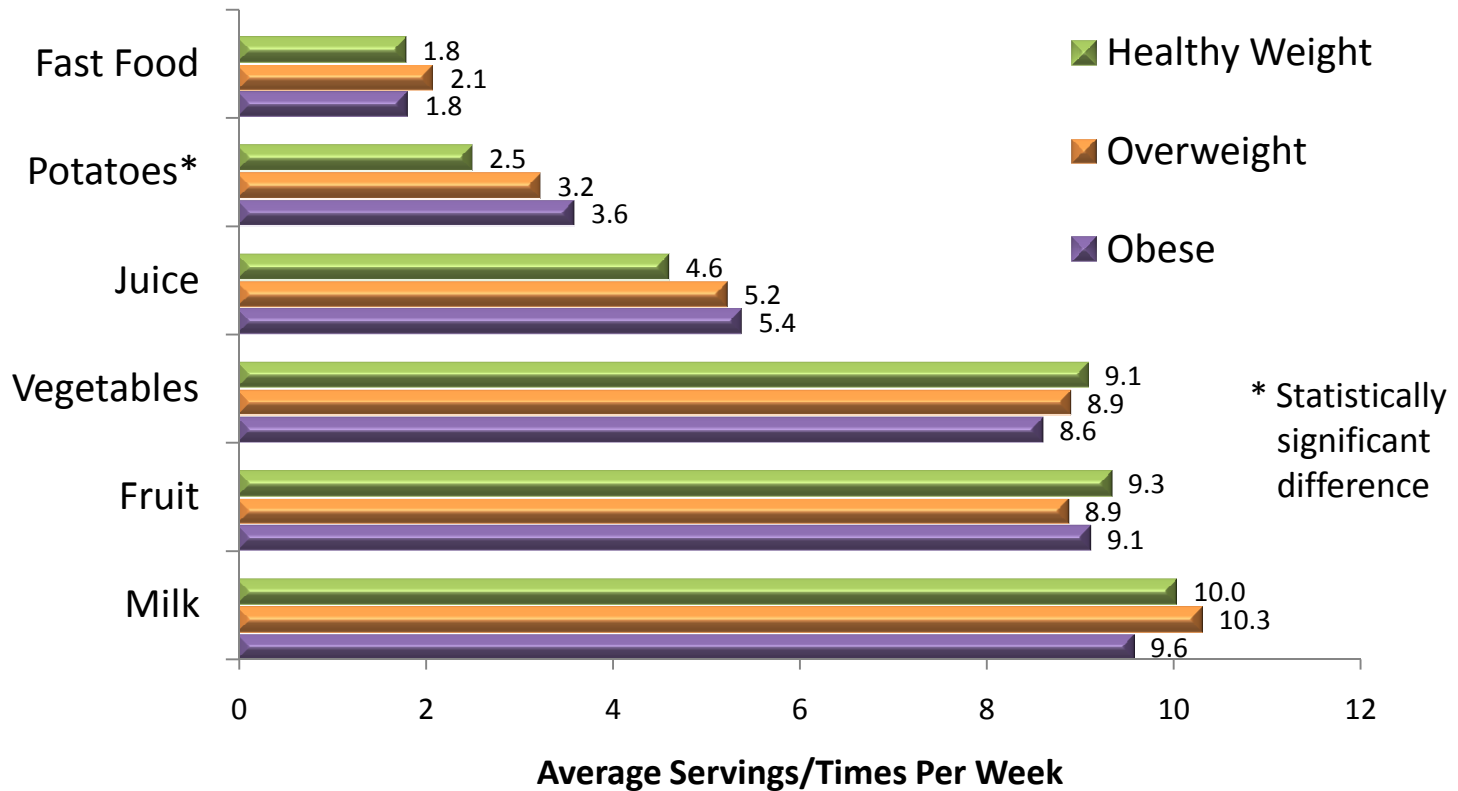


N= 600

# Child Diet and Overweight



Child Diet by BMI Percentile Group



N= 600

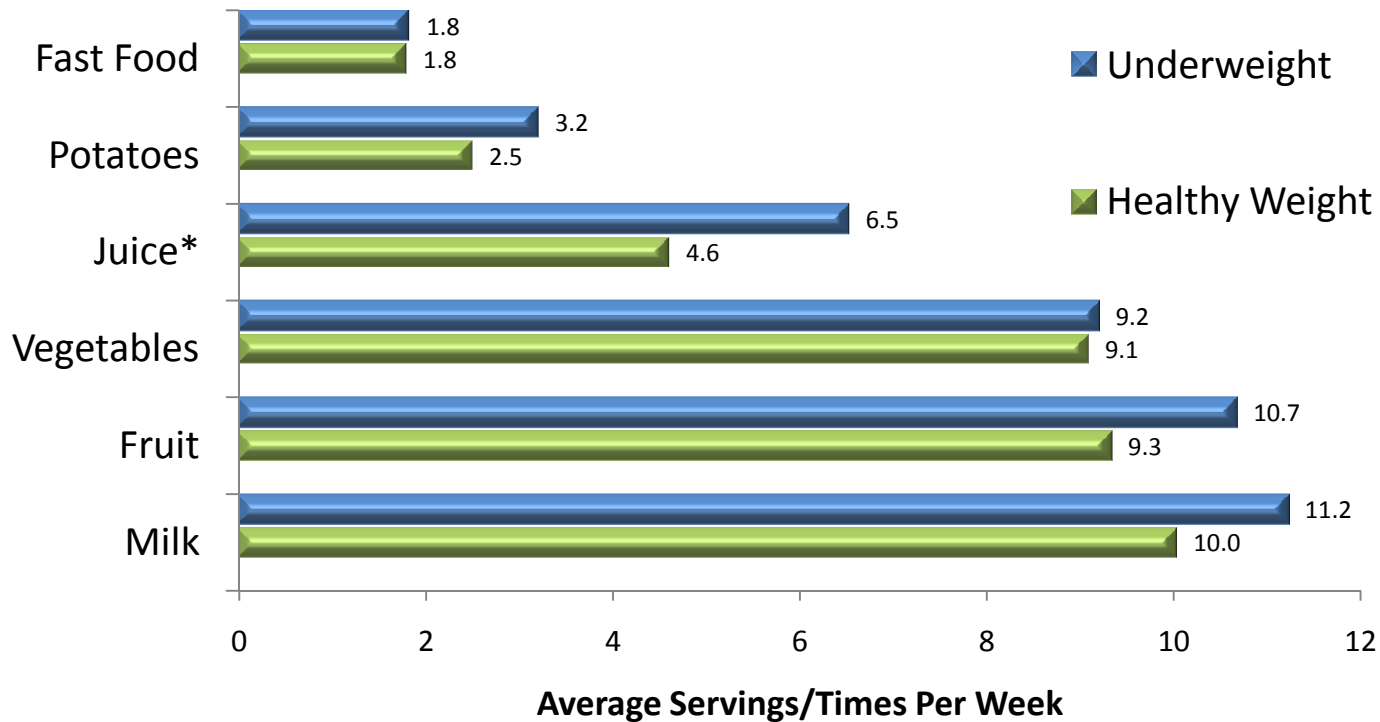
Obese children eat significantly more servings (about 50% more) of potatoes per week than do healthy weight children.



# Child Diet and Underweight



**Child Diet by BMI Percentile Group**

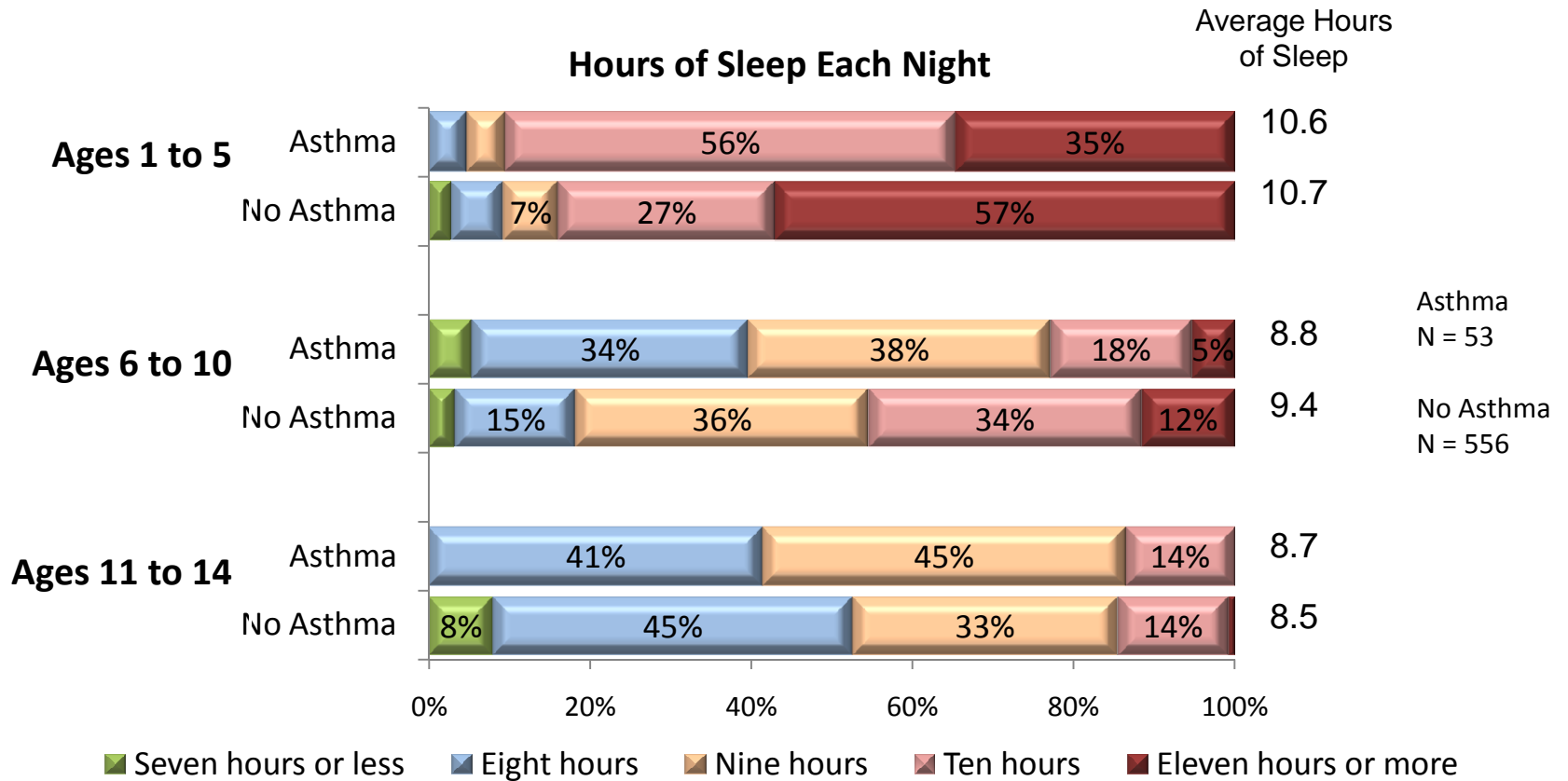


N= 600

Underweight children drink significantly more fruit juices than do healthy weight children.

\* Statistically significant difference

# Child Sleep and Asthma

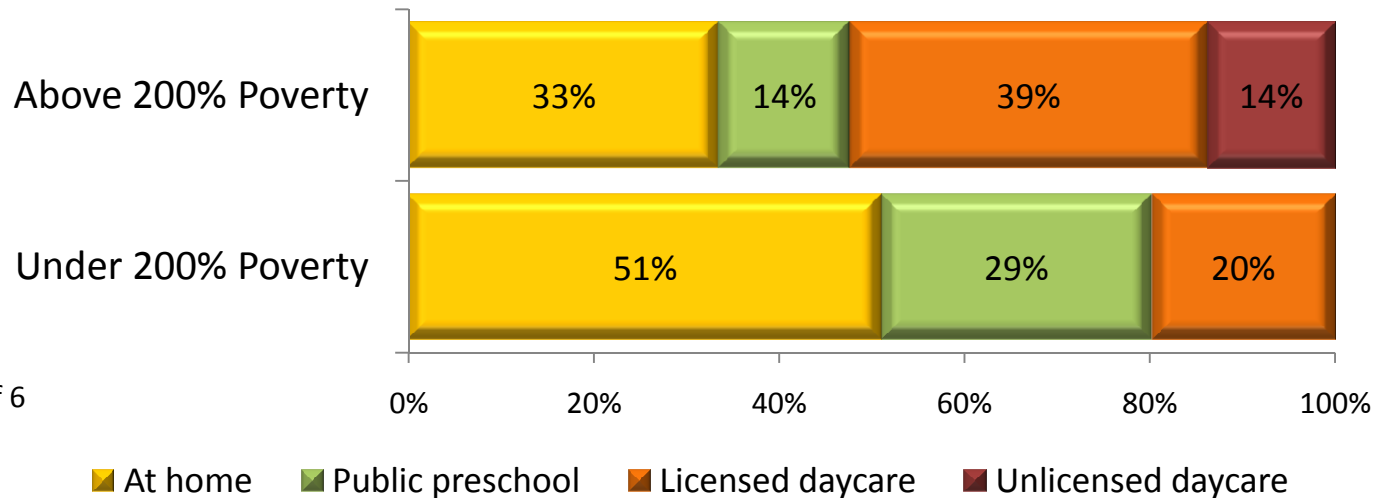


Children between the ages of 6 and 10 who have asthma get significantly less sleep at night than do children of the same age who do not have asthma. Between the ages of 11 and 14 as children begin to sleep less, this difference appears to begin to even out.



# Where are the Children? Preschool

Pre-school Daycare



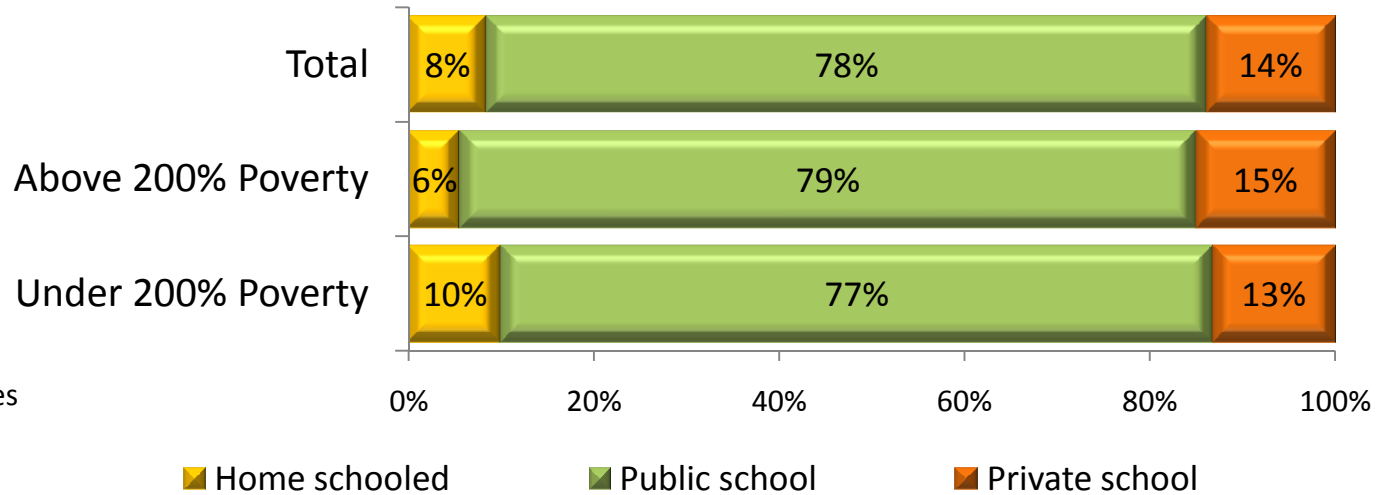
N= 170 children under the age of 6

Preschool children from households under 200% of federal poverty limits are twice as likely to be at home with a parent or in a public preschool program. Children living in households above 200% of federal poverty levels are over twice as likely to spend the day in a private daycare program. Over 20% of all preschool children in private daycare are in an unlicensed daycare program.



# Where are the Children? School Age

School By Income

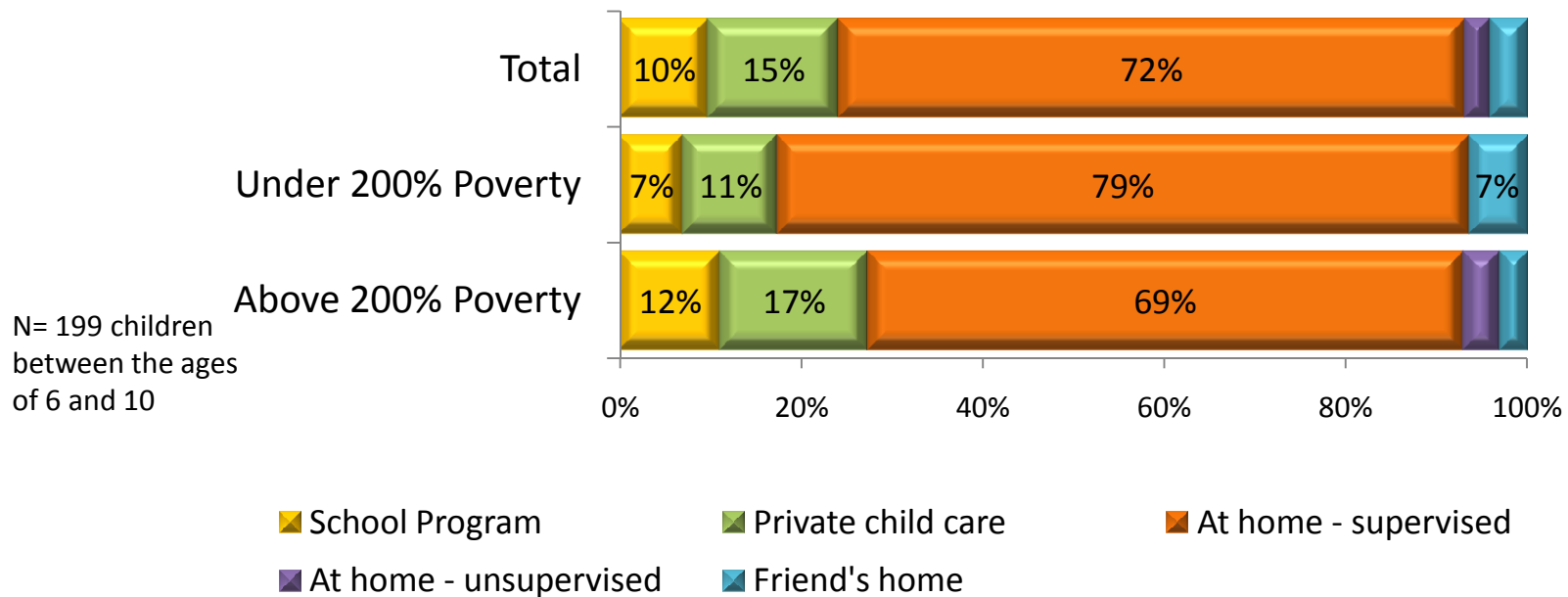


N= 386 children between the ages of 6 and 14

Children do not differ by household income in the type of school they attend.

# Where are the Children? After School

6 to 10 Year Olds: After School By Income

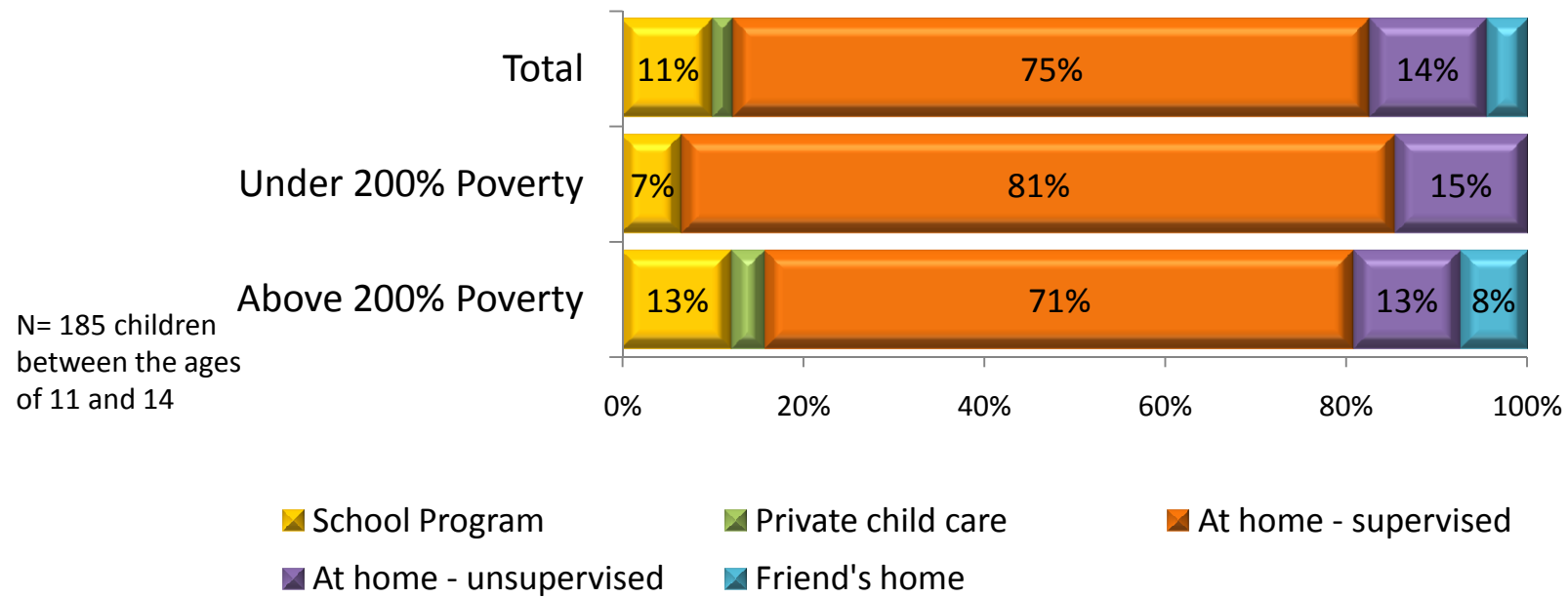


6 to 10 year old children from households under 200% of federal poverty levels are significantly more likely to spend their afternoons at home supervised by a parent. 3% of all children between the ages of 6 and 10 spend their afternoons at home unsupervised.



# Where are the Children? After School

**11 to 14 Year Olds: After School By Income**



Children from households under 200% of federal poverty levels are significantly more likely to spend their afternoons at home supervised by a parent. 14% of all children between the ages of 6 and 10 spend their afternoons at home unsupervised. Children from households above 200% of poverty are almost twice as likely to spend their afternoons at a school sponsored program.

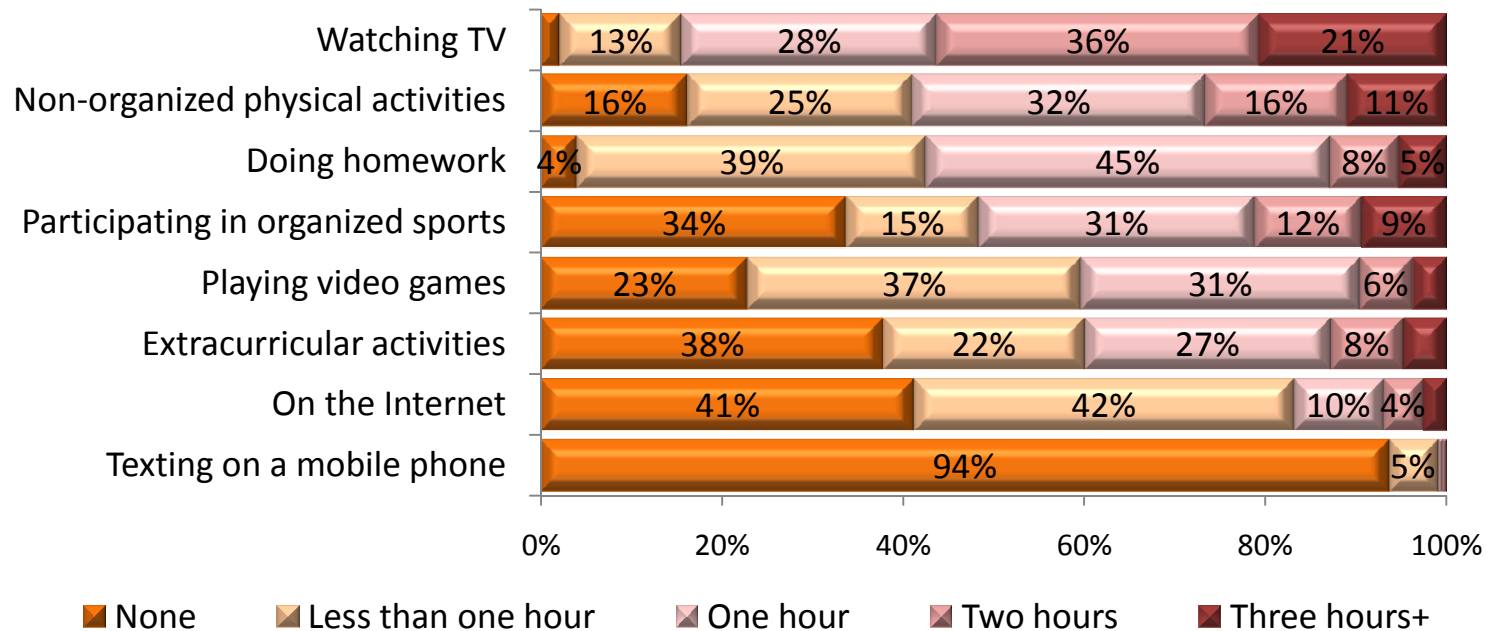




# What are they up to? 6 to 10 Year Olds

N= 203 children  
between the ages  
of 6 and 10

## 6 to 10 Year Olds: How They Spend Their Days



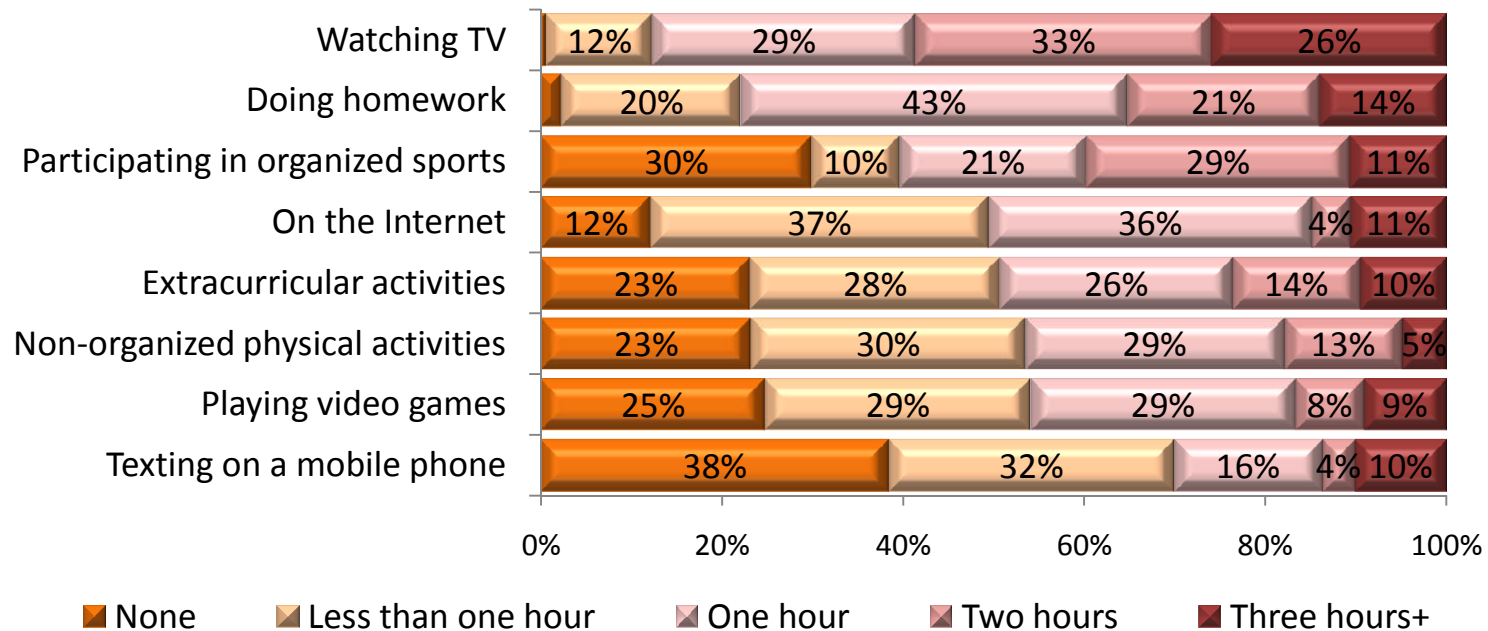
85% of 6 to 10 year olds spend an hour or more each day watching television. Just over half of them spend an hour or more per day doing homework or participating in organized sports or non-organized sports physical activities. 40% spend an hour or more per day participating in extracurricular activities or playing video games. Only 17% of children in this age group spend an hour or more per day on the Internet, and only 6% spend any time texting on mobile phones.



# What are they up to? 11 to 14 Year Olds

N= 193 children  
between the ages  
of 11 and 14

## 11 to 14 Year Olds: How They Spend Their Days



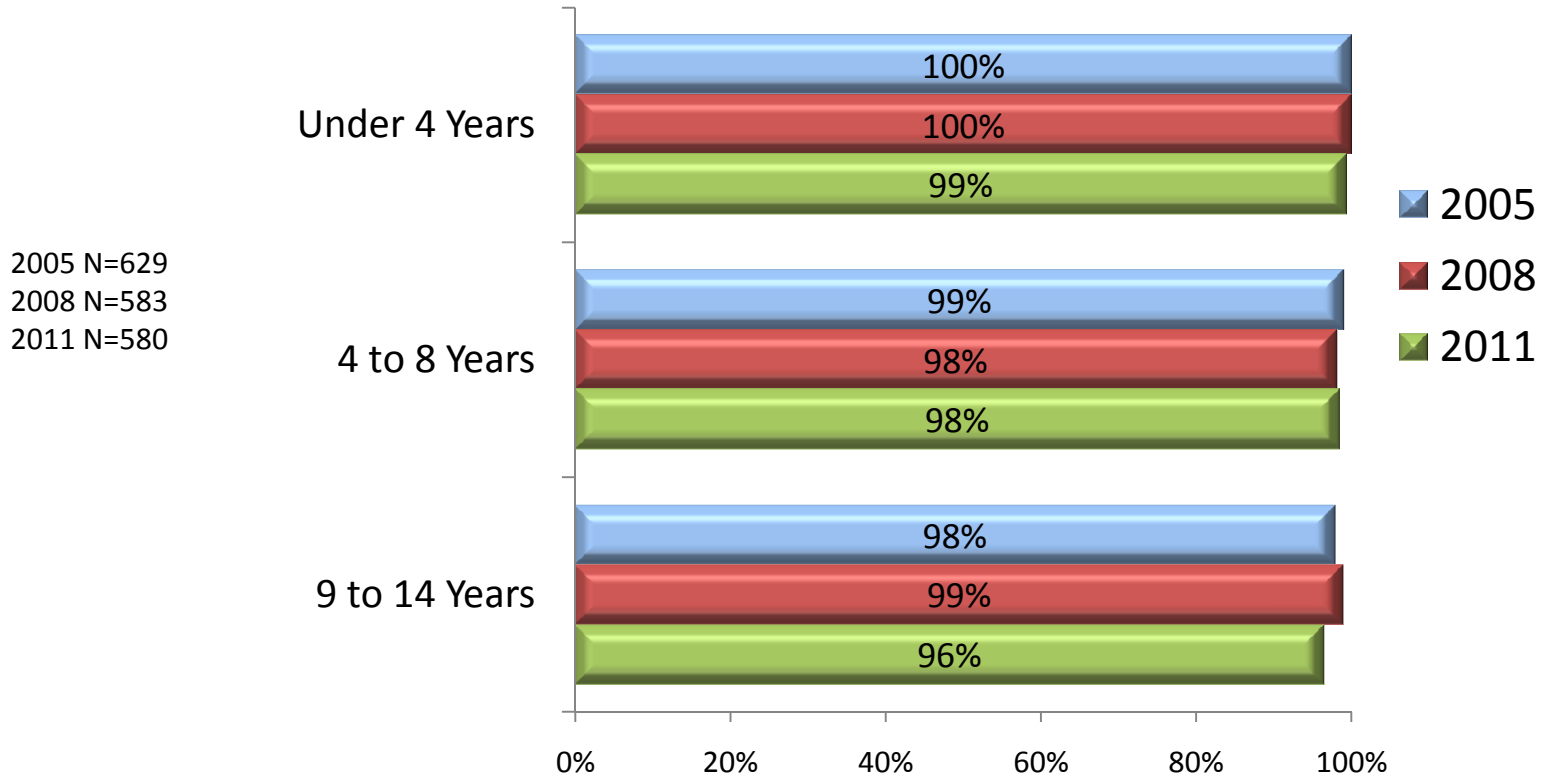
88% of 11 to 14 year olds spend an hour or more each day watching television. 78% spend an hour or more per day doing homework. 60% spend an hour or more per day participating in organized sports. About half spend an hour or more per day on the Internet, participating in extracurricular activities, engaging in non-organized physical activities or playing video games. Nearly one third of children aged 11 to 14 spend an hour or more per day texting on mobile phones.



# Seat Belt and Car Seat Use



**Percent Regularly Using Car Safety Restraints**

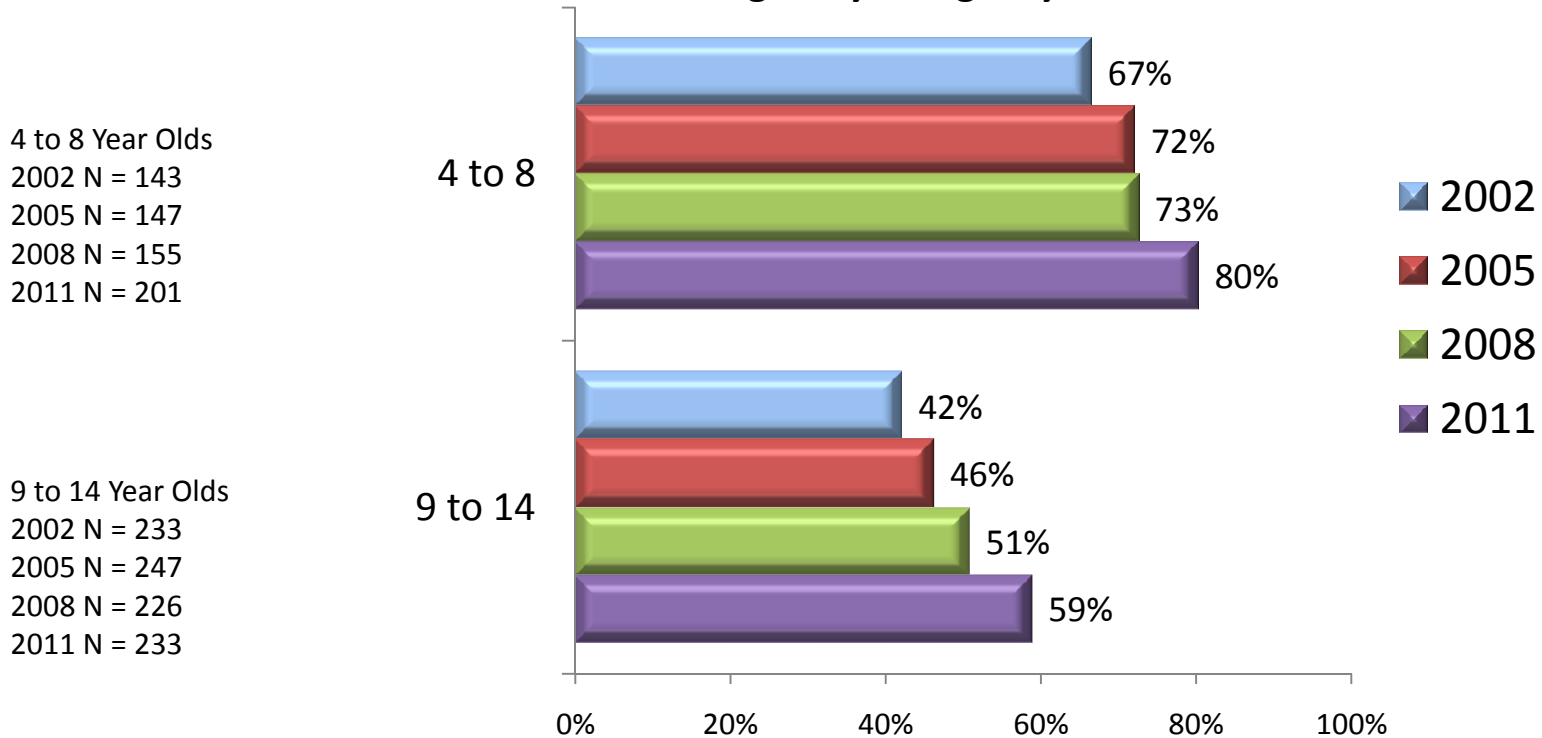


Nearly 100% of children of all ages use either seat belts or car seats regularly. For 2005 and 2008 the responses are for those using car restraints “always” or “most of the time”. For 2011 the responses are those agreeing that the child “regularly uses a car seat or wears a seatbelt when riding in a car.”

# Bicycle Safety



Percent Regularly Using Bicycle Helmets



4 to 8 Year Olds  
 2002 N = 143  
 2005 N = 147  
 2008 N = 155  
 2011 N = 201

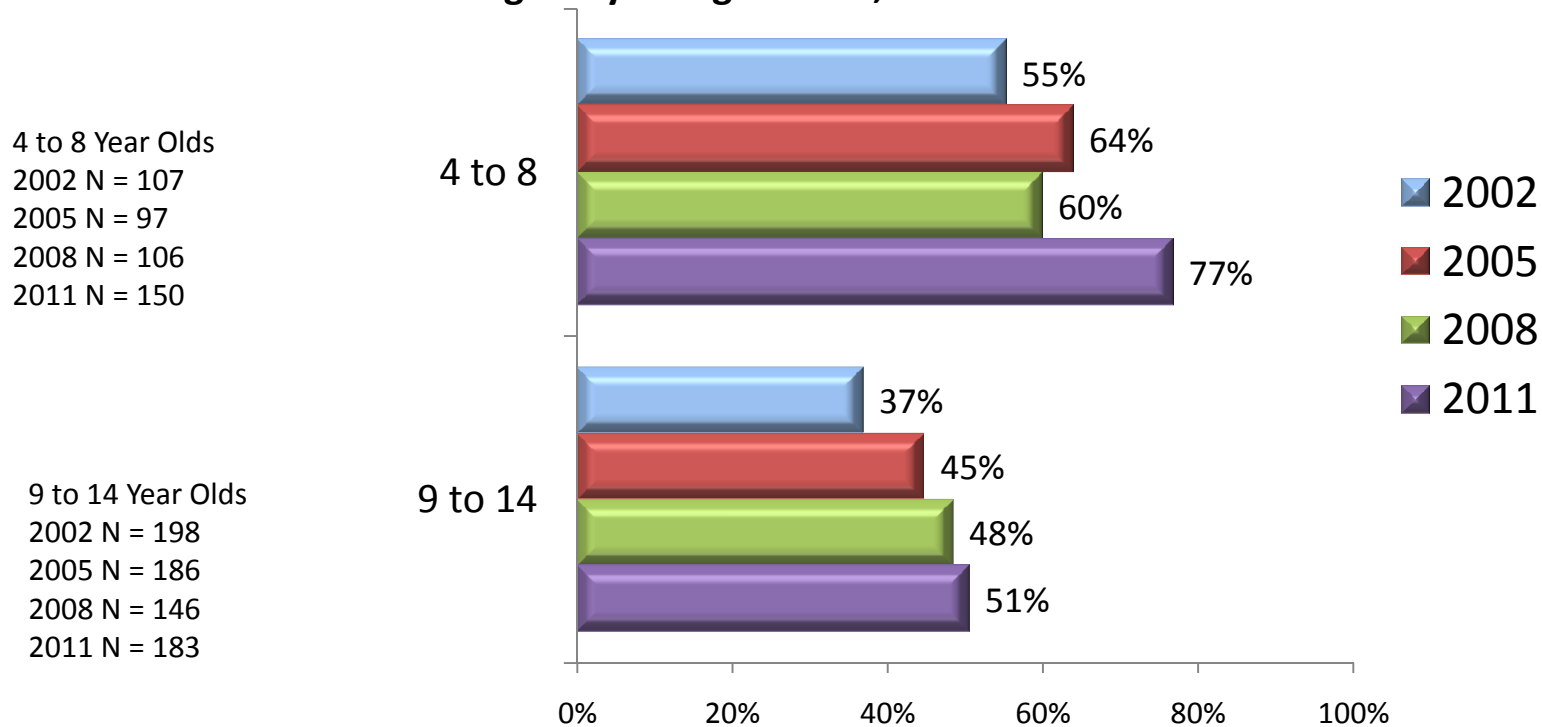
9 to 14 Year Olds  
 2002 N = 233  
 2005 N = 247  
 2008 N = 226  
 2011 N = 233

Older children are more likely to not use a bicycle helmet. There appears to be an increasing trend for children to use bicycle helmets more often, however this should be viewed with caution because of changes in the survey question. For 2002 to 2008 the responses are for those using helmets “always” or “most of the time”. For 2011 the responses are those agreeing that the child “regularly wears a helmet when riding a bicycle.” Includes only children who ride bicycles.

# Scooter, Skateboard and Rollerblade Safety



**Percent Regularly Using Scooter, Skateboard or Rollerblade Helmets**



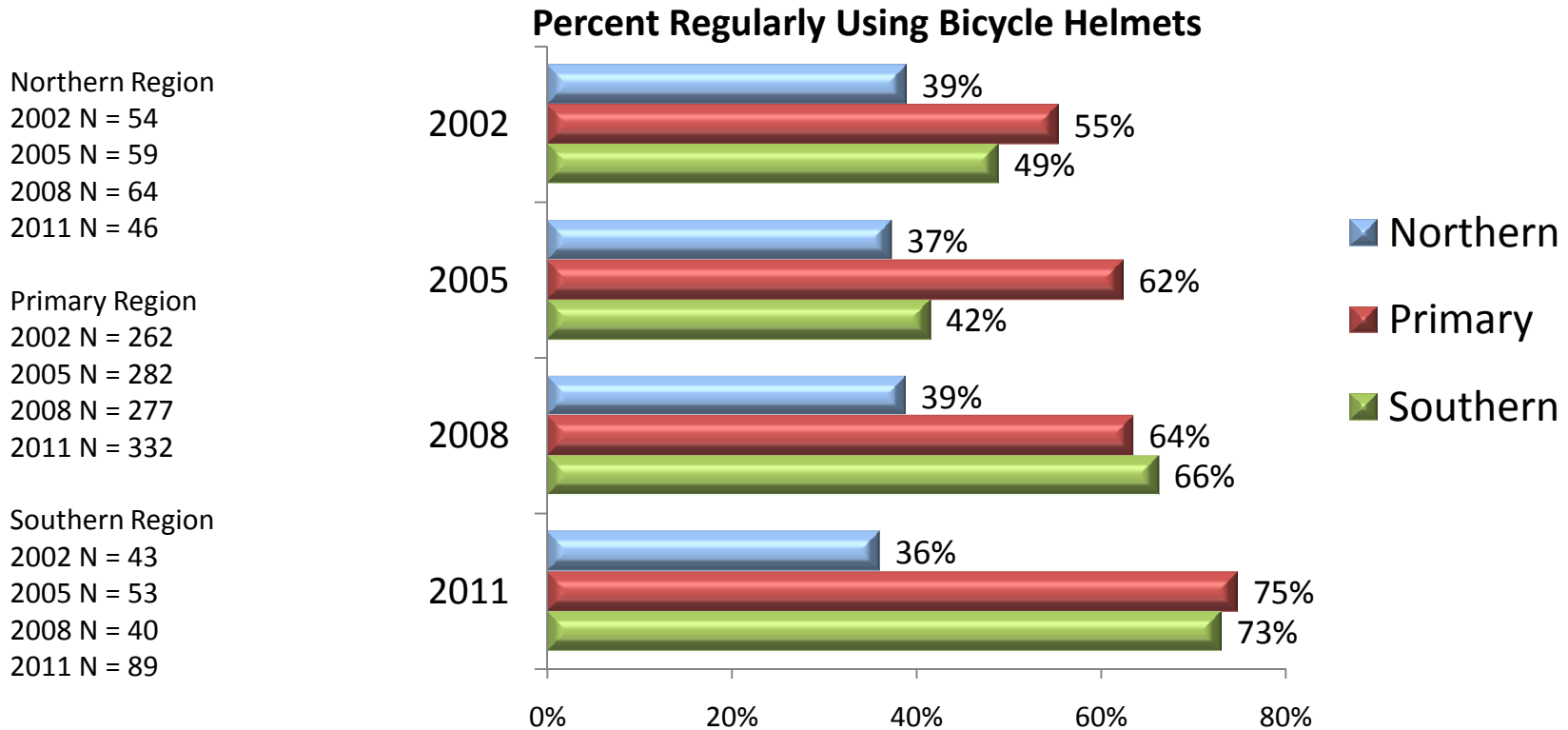
4 to 8 Year Olds  
 2002 N = 107  
 2005 N = 97  
 2008 N = 106  
 2011 N = 150

9 to 14 Year Olds  
 2002 N = 198  
 2005 N = 186  
 2008 N = 146  
 2011 N = 183

Older children are more likely to not use helmets when riding scooters, skateboards or rollerblades . As with bicycles, there appears to be an increasing trend for children to use helmets more often, however this should be viewed with caution because of changes in the survey question. For 2002 to 2008 the responses are for those using helmets “always” or “most of the time”. For 2011 the responses are those agreeing that the child “regularly wears a helmet when riding a scooter, skateboard or rollerblades outdoors..” Includes only children who ride scooters, skateboards or rollerblades.



# Bicycle Helmet Use by Service Region



**Northern Region**  
 2002 N = 54  
 2005 N = 59  
 2008 N = 64  
 2011 N = 46

**Primary Region**  
 2002 N = 262  
 2005 N = 282  
 2008 N = 277  
 2011 N = 332

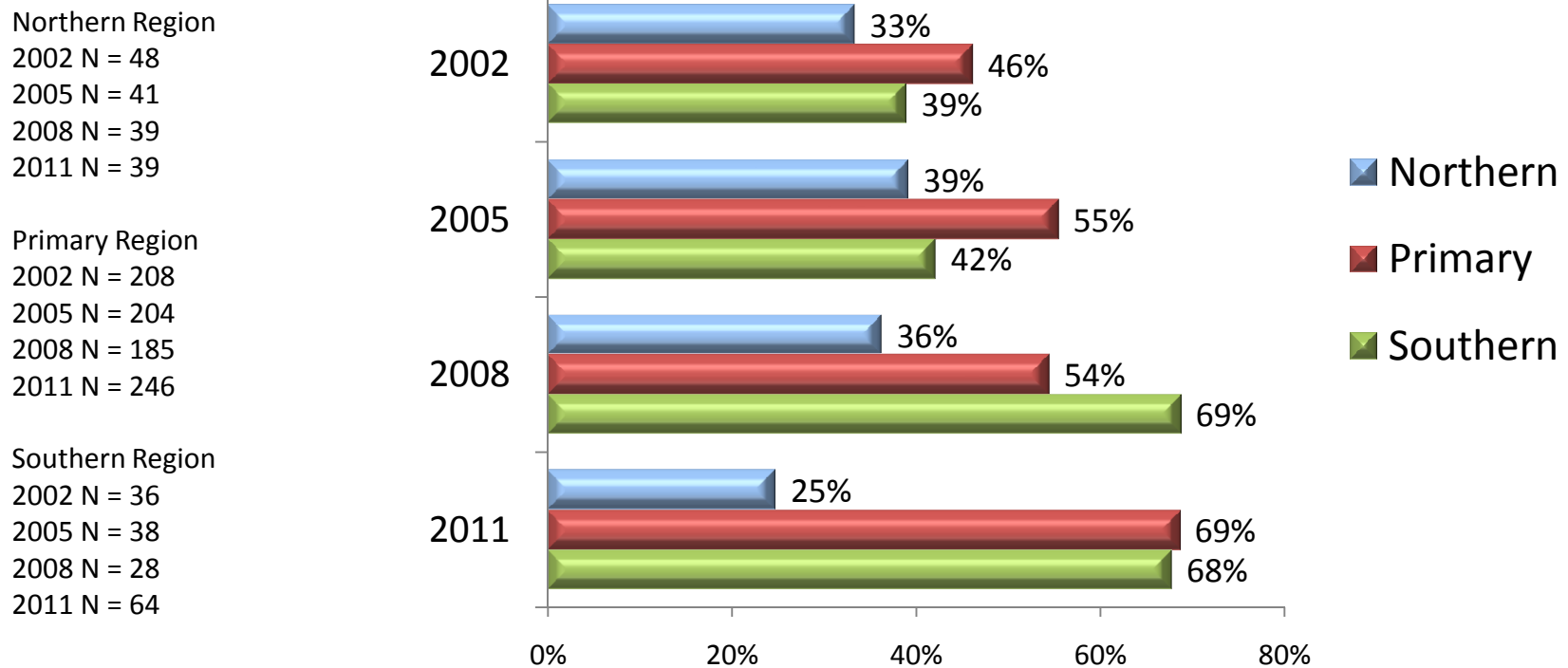
**Southern Region**  
 2002 N = 43  
 2005 N = 53  
 2008 N = 40  
 2011 N = 89

Children living in the northern service region are consistently more likely to ride bicycles without helmets than are children in either the primary or the southern service regions. For 2002 to 2008 the responses are for those using helmets “always” or “most of the time”. For 2011 the responses are those agreeing that the child “regularly wears a helmet when riding a bicycle.” Includes only children who ride bicycles.

# Scooter, Skateboard and Rollerblade Safety



**Percent Regularly Using Scooter, Skateboard or Rollerblade Helmets**



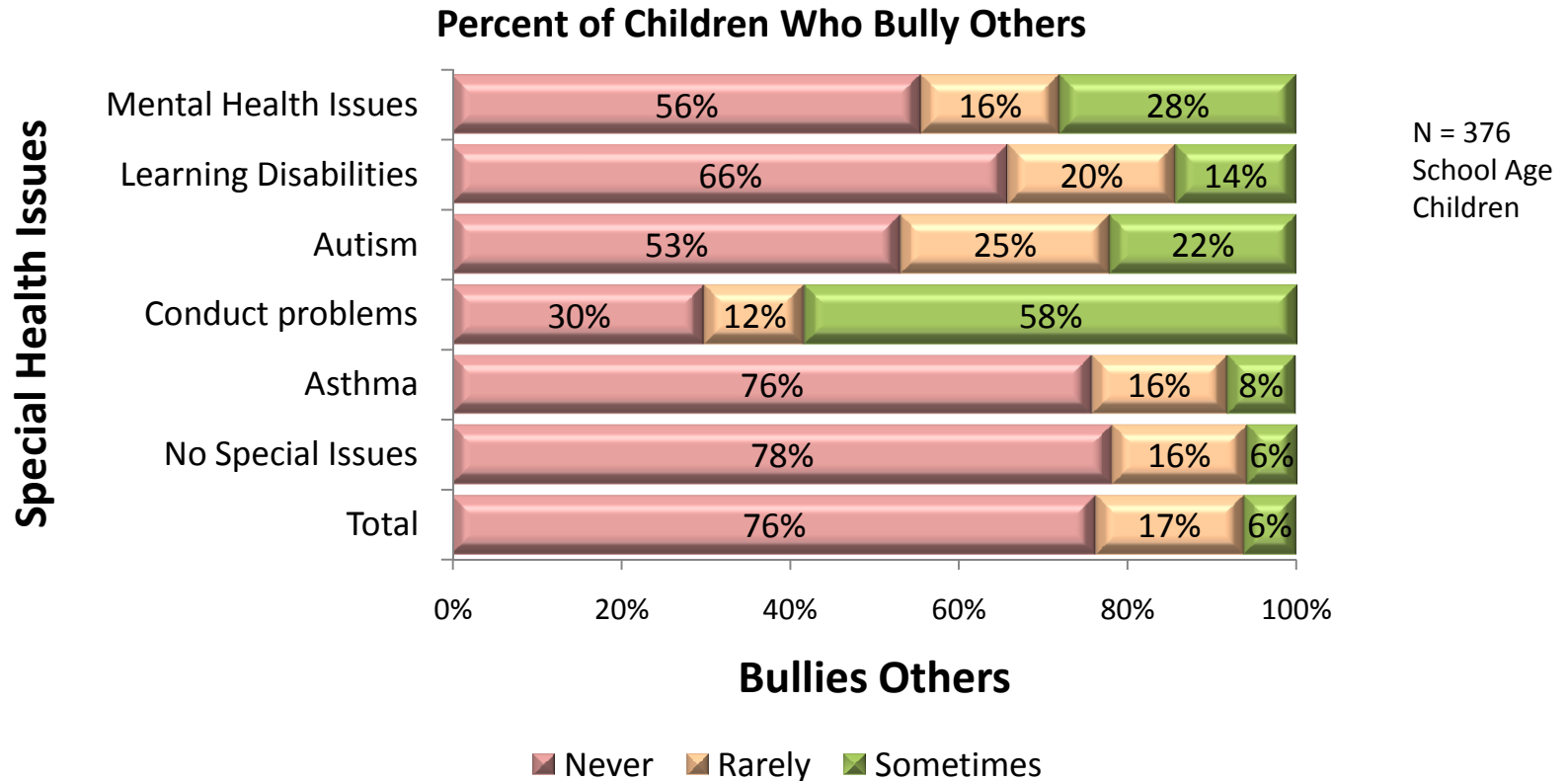
**Northern Region**  
 2002 N = 48  
 2005 N = 41  
 2008 N = 39  
 2011 N = 39

**Primary Region**  
 2002 N = 208  
 2005 N = 204  
 2008 N = 185  
 2011 N = 246

**Southern Region**  
 2002 N = 36  
 2005 N = 38  
 2008 N = 28  
 2011 N = 64

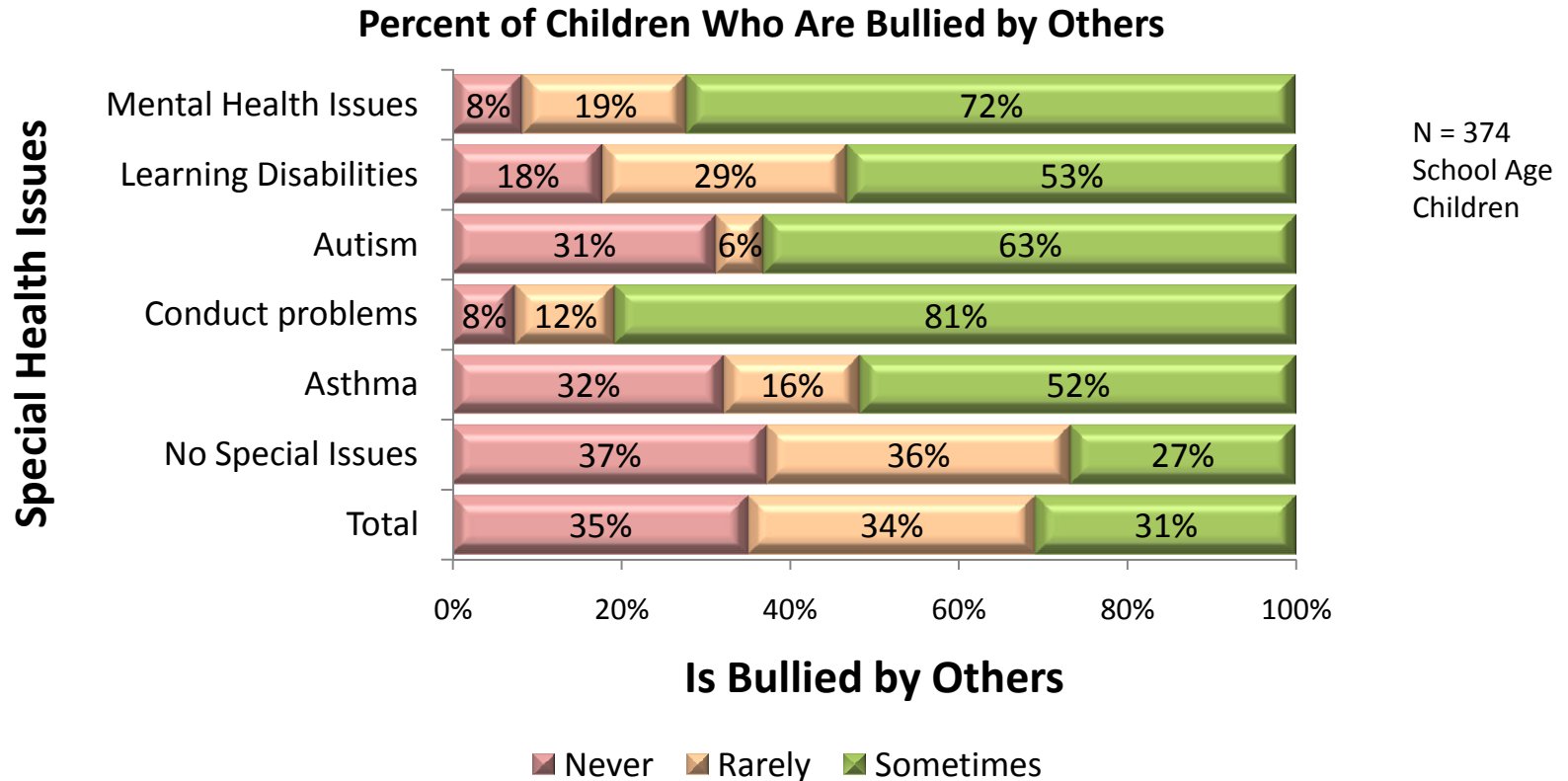
Children living in the northern service region are consistently more likely to use scooters, skateboards or rollerblades without helmets than are children in either the primary or the southern service regions. For 2002 to 2008 the responses are for those using helmets “always” or “most of the time”. For 2011 the responses are those agreeing that the child “regularly wears a helmet when riding a scooter, skateboard or rollerblades outdoors..” Includes only children who ride bicycles.

# Bullying and Being Bullied: Who Bullies?



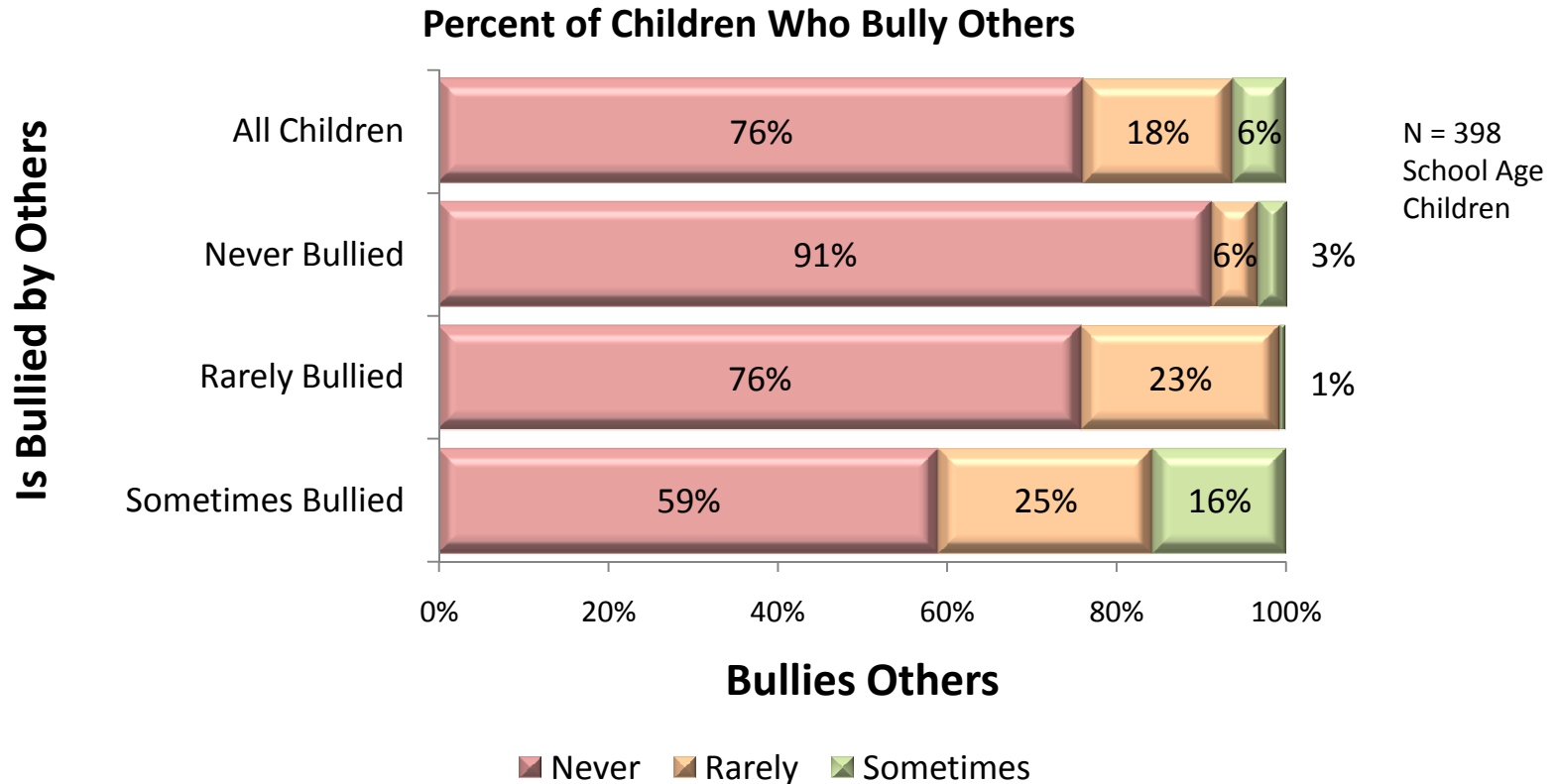
Children who have certain mental health and developmental disabilities are significantly more likely to bully other children . “Mental Health Issues” includes depression, anxiety disorders, eating disorders, sleep disorders and general mental health issues. “Learning Disabilities” includes general learning disabilities and ADHD.

# Bullying and Being Bullied: Who Is Bullied?



Children who have certain mental health and developmental disabilities are significantly more likely to be the targets of bullying. Children who have asthma are also significantly more likely to be bullying targets. "Mental Health Issues" includes depression, anxiety disorders, eating disorders, sleep disorders and general mental health issues. "Learning Disabilities" includes general learning disabilities and ADHD.

# Bullying and Being Bullied

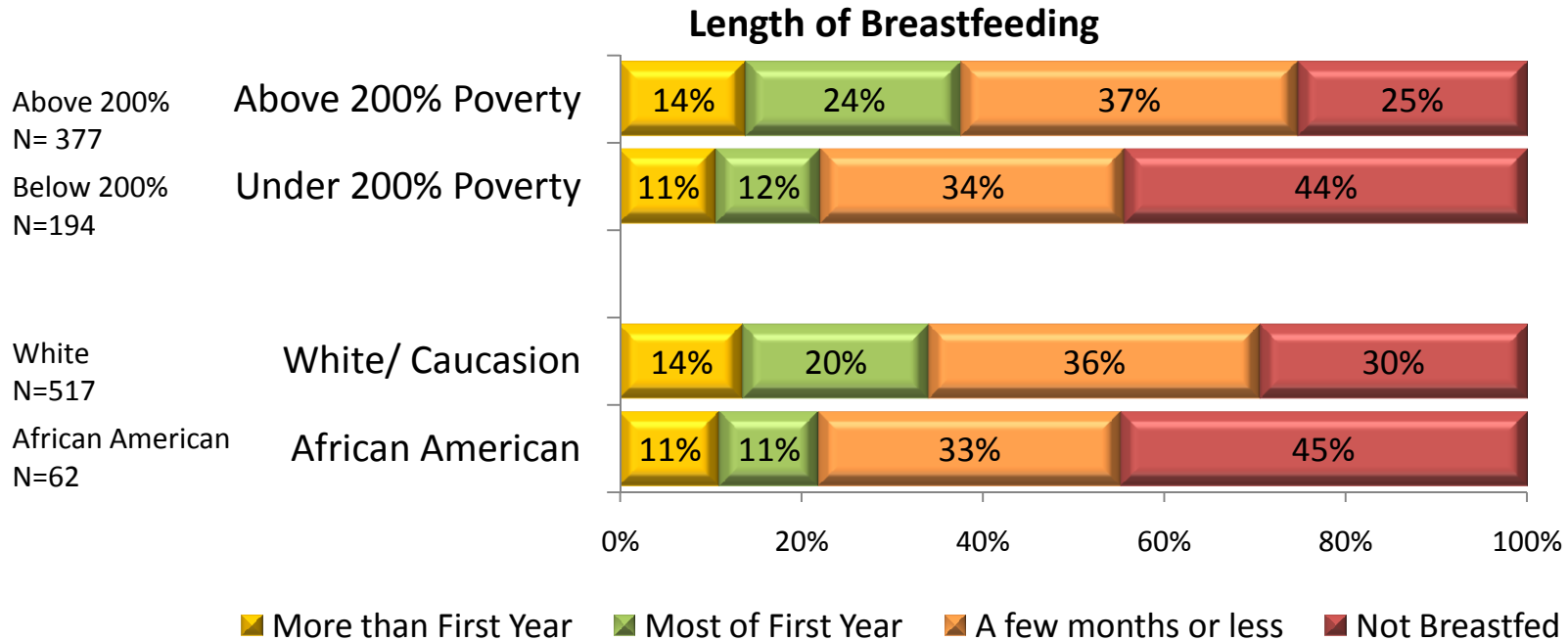


Children who are sometimes bullied are significantly more likely to bully other children themselves.





# Breastfeeding by Income and Ethnicity

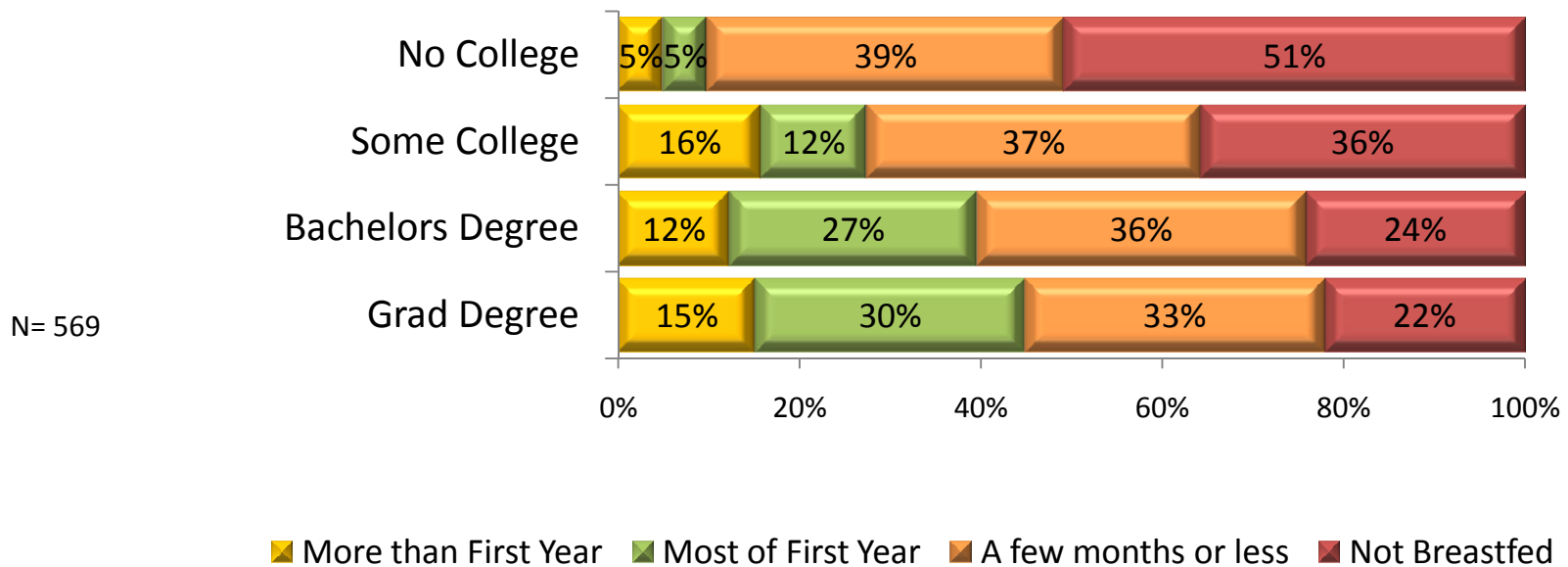


Over two thirds of all children were breastfed for at least some of their infancy. The amount of breast feeding varies by income and ethnicity with White mothers being about 50% more likely than African American mothers to breastfeed their children for at least most of the first year of life. Mothers with incomes below 200% of the federal poverty level are about twice as likely to forego breastfeeding.



# Breastfeeding by Parent's Education

Length of Breastfeeding by Education Level

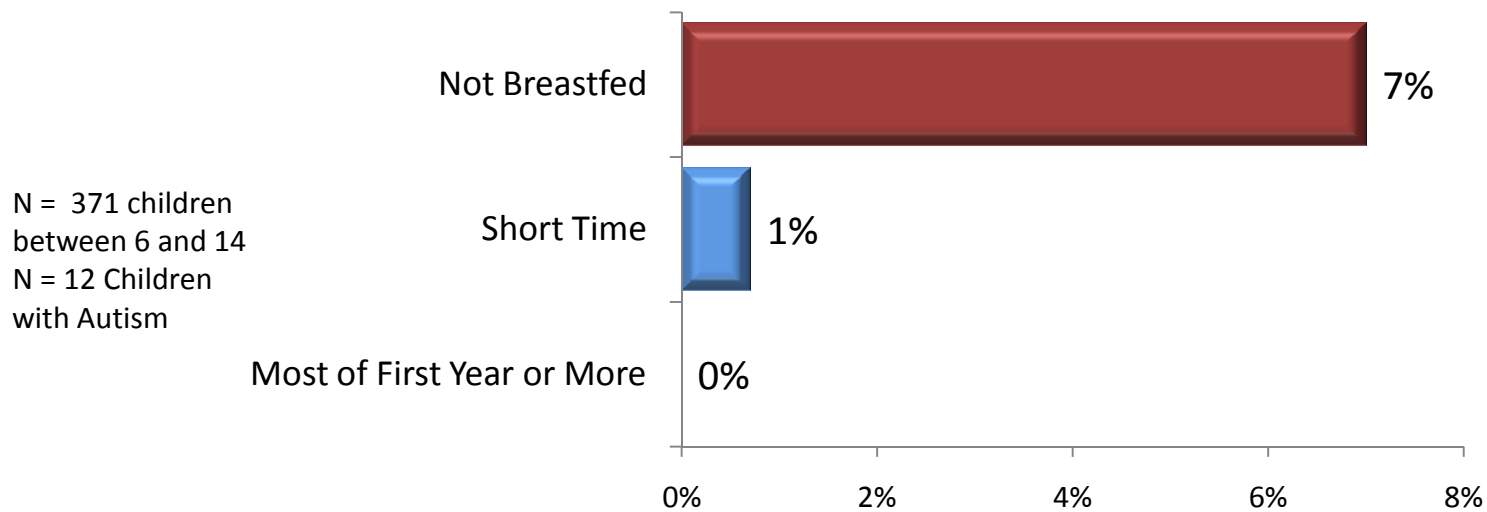


Breastfeeding is significantly correlated with the educational level of the mother. Parents with college degrees are significantly more likely to breastfeed and to breastfeed longer than are parents with less than a college degree.

# Breastfeeding and Autism

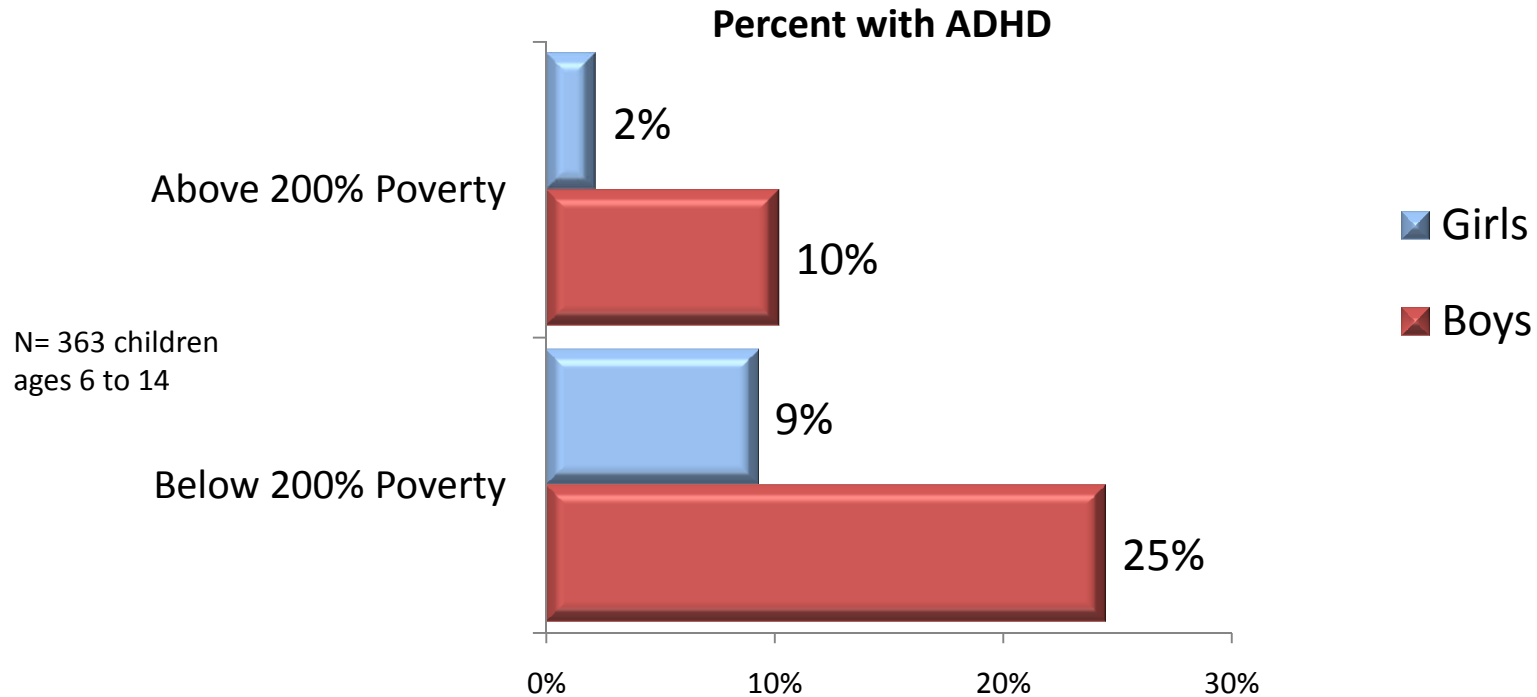


**Percent of Children with Autism Spectrum Condition**



The results suggest the possibility of a relationship between breastfeeding and Autism Spectrum Disorder. 12 out of 371 (3%) children ages 6 to 14 were diagnosed with a disorder on the autism spectrum. 11 out of the 12 had not been breastfed. One had been breastfed for only a short time. When asked why they did not breastfeed, two parents said that the baby refused breastfeeding; two said that the mother did not like breastfeeding; four cited the mother's health; one mother had to return to work; and two of the children were adopted. While these results are statistically significant at the 95% confidence level, they are based on a small number of cases and should be viewed with caution.

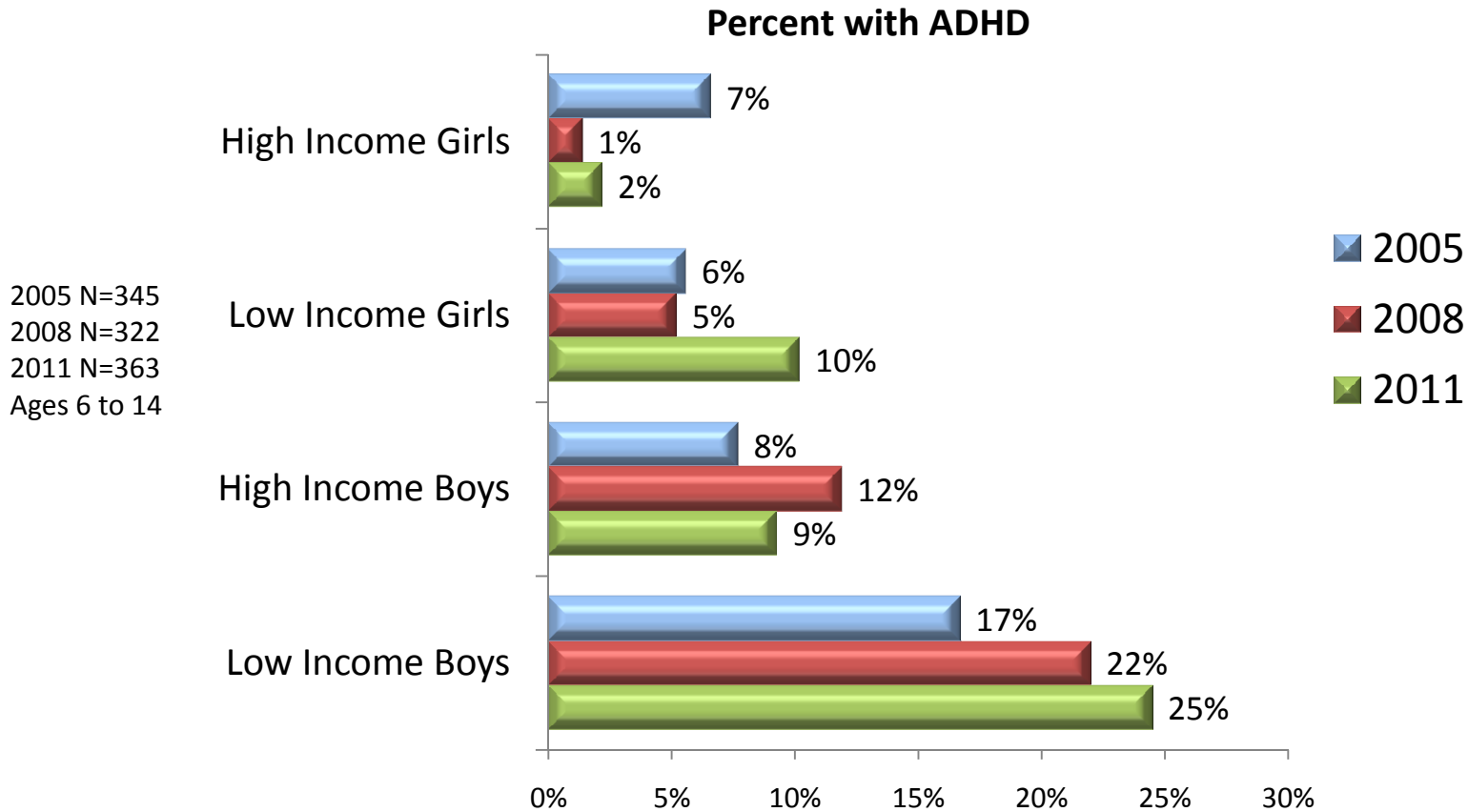
# ADHD by Gender and Income



A clear interaction exists between gender, income and ADHD. One quarter of boys whose families earn less than 200% of the federal poverty level have been diagnosed with ADHD, compared to 10% of boys whose families earn more than 200% of the federal poverty level. Girls are significantly less likely to be diagnosed with ADHD, regardless of family income, but girls from lower income families are five times as likely to receive the diagnosis than are girls from higher income families. Based on results for school age children between the ages of 6 and 14.



# ADHD by Gender and Income



The interaction between gender, income and ADHD has existed across waves of this assessment with lower income boys being significantly more likely to receive the diagnosis than either girls or higher income boys.



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