

# **Chart Book on the Health of Minnesota's Children**

**Developed by the University of Minnesota  
State Health Access Data Assistance Center  
(SHADAC)**

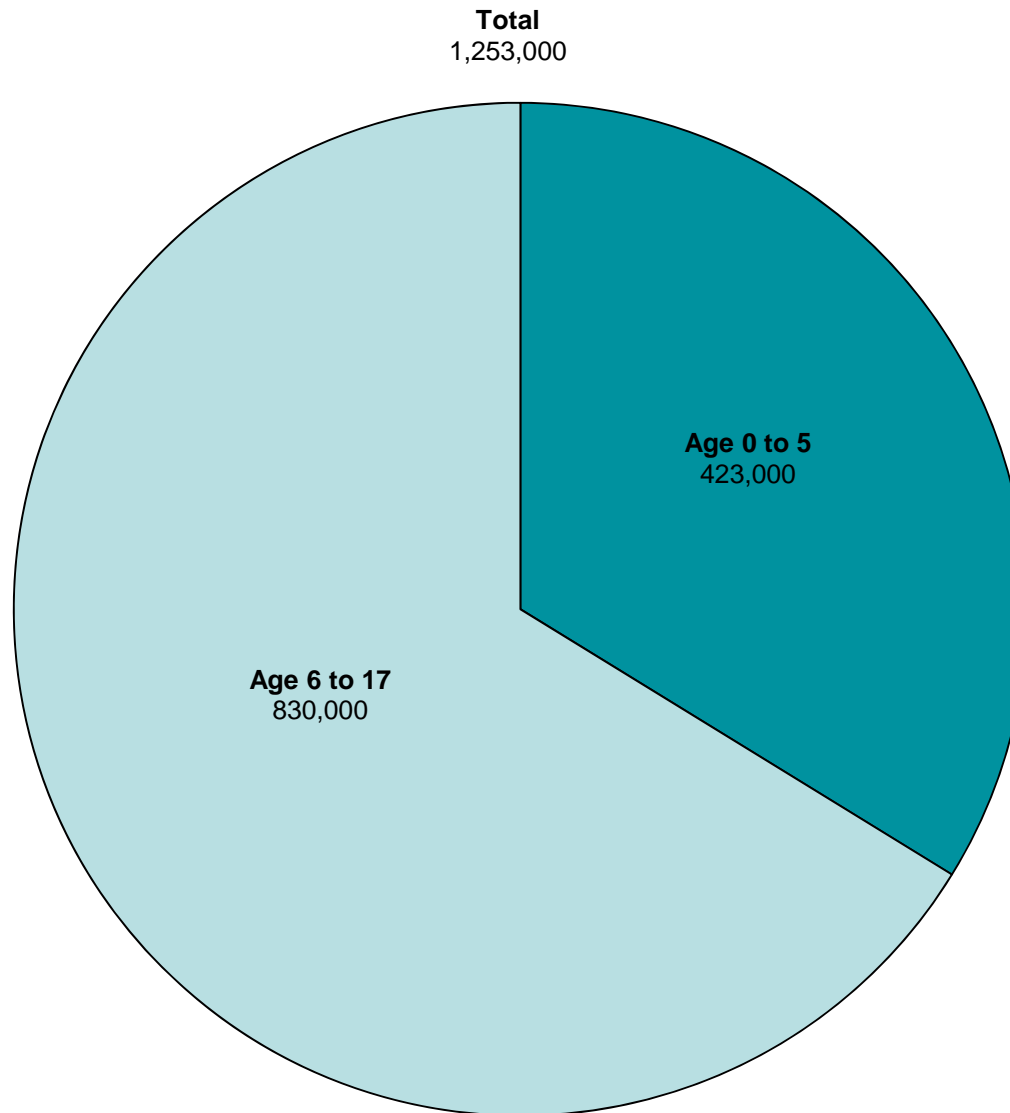
**This Chart Book is the primary source for the Children's Check-Ups Series  
developed by Children's Hospitals and Clinics of Minnesota.**



Delivering Next Generation Care

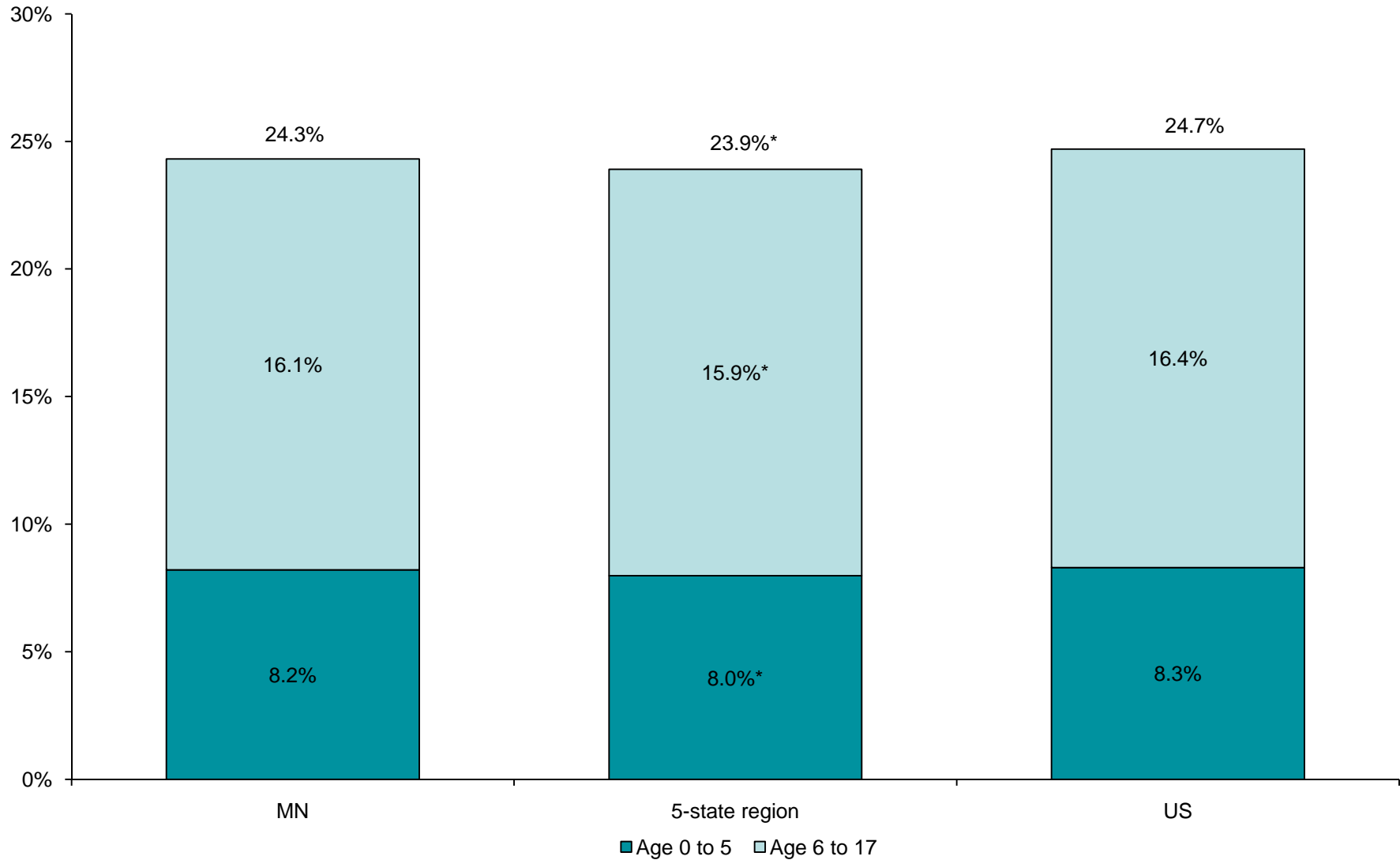


**Exhibit 1.1**  
**Number of children in Minnesota, 2008**



Source: American Community Survey, 2008.

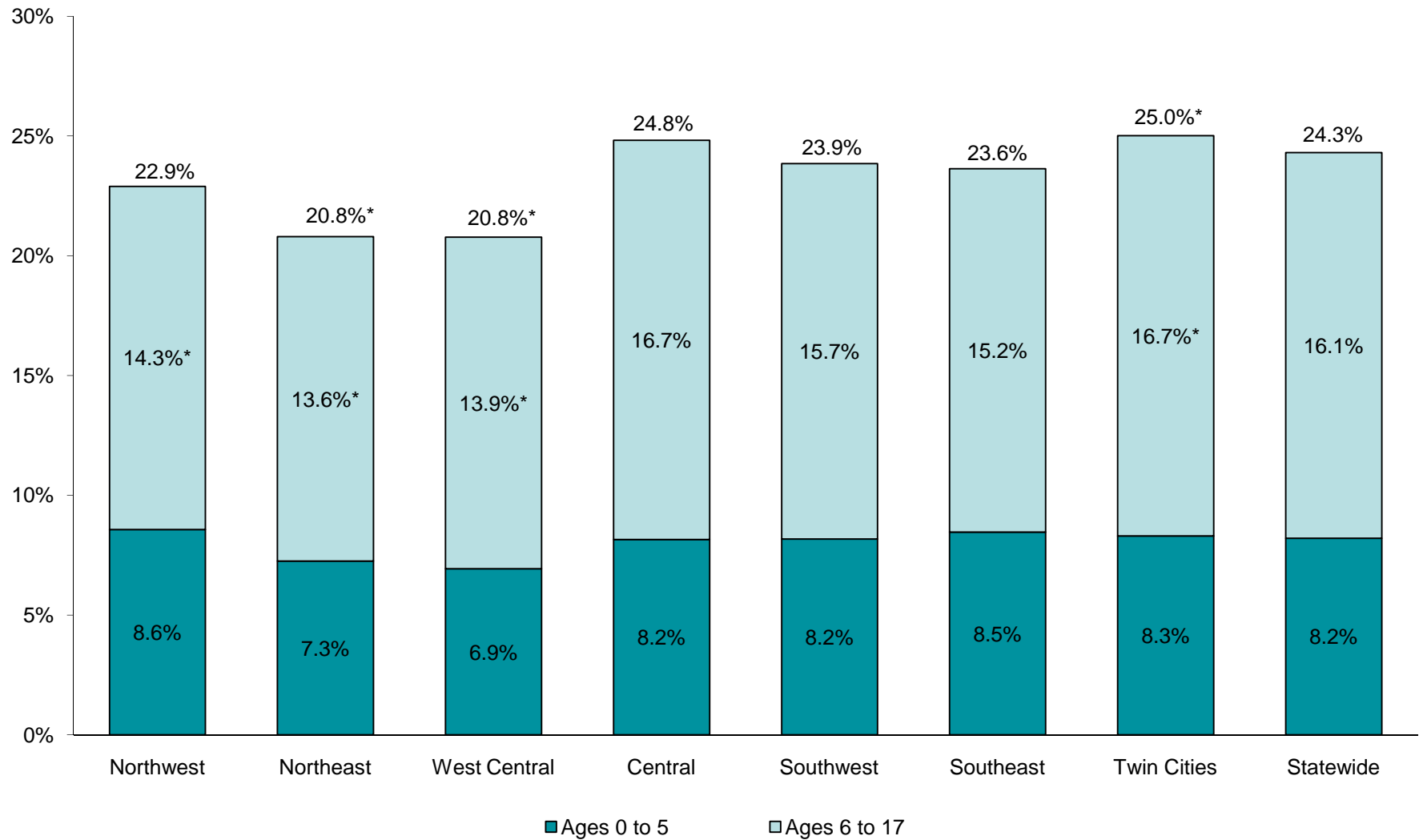
**Exhibit 1.2**  
**Children as percent of total population, 2008**



\*Indicates statistically significant difference from U.S. (95% level)

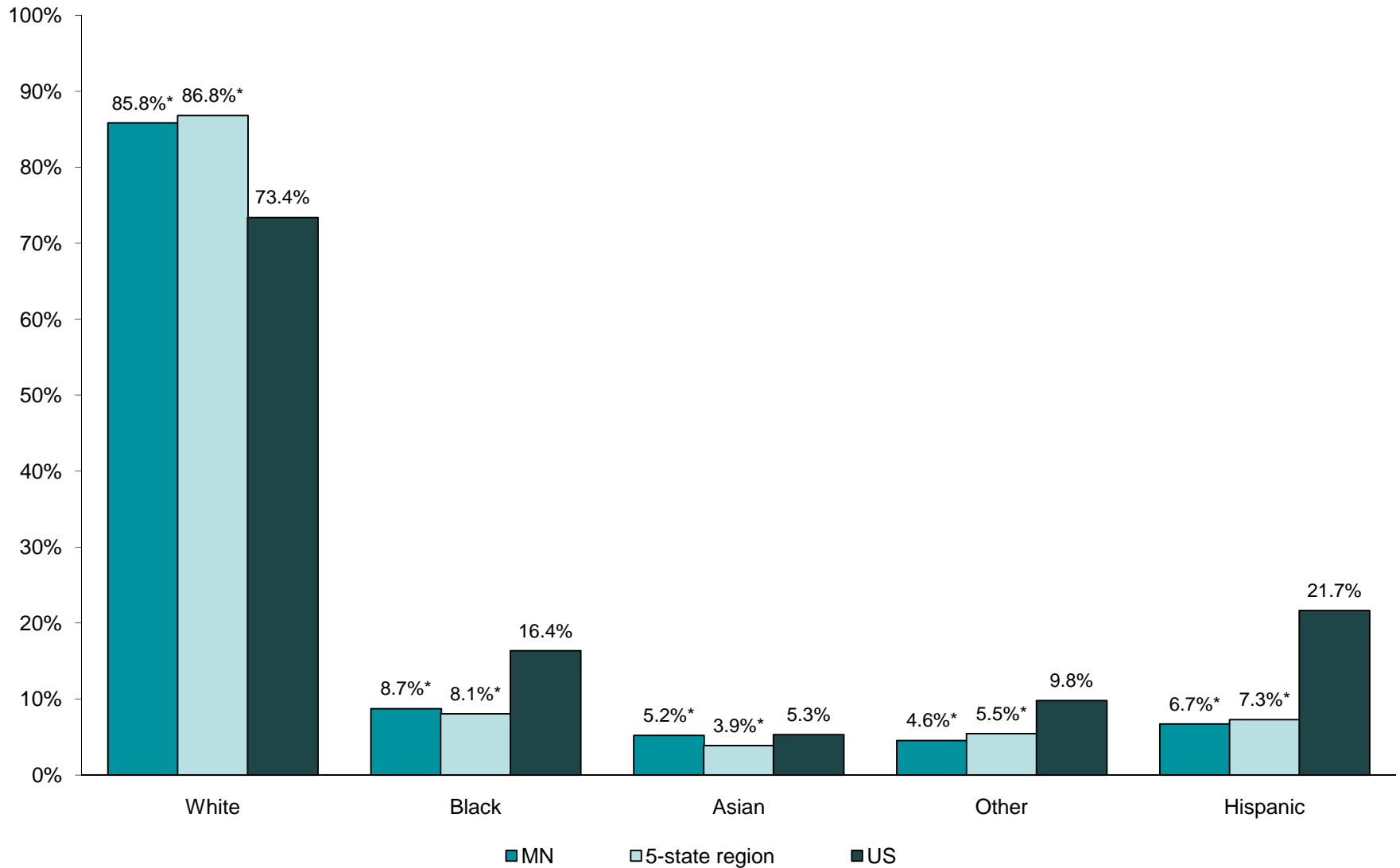
Source: American Community Survey, 2008.

**Exhibit 1.3**  
**Children as a percentage of population by region within Minnesota, 2008**



\*Indicates statistically significant difference from statewide average (95% level)  
 Source: American Community Survey, 2008.

**Exhibit 1.4**  
**Distribution of children by race/ethnicity, 2008**

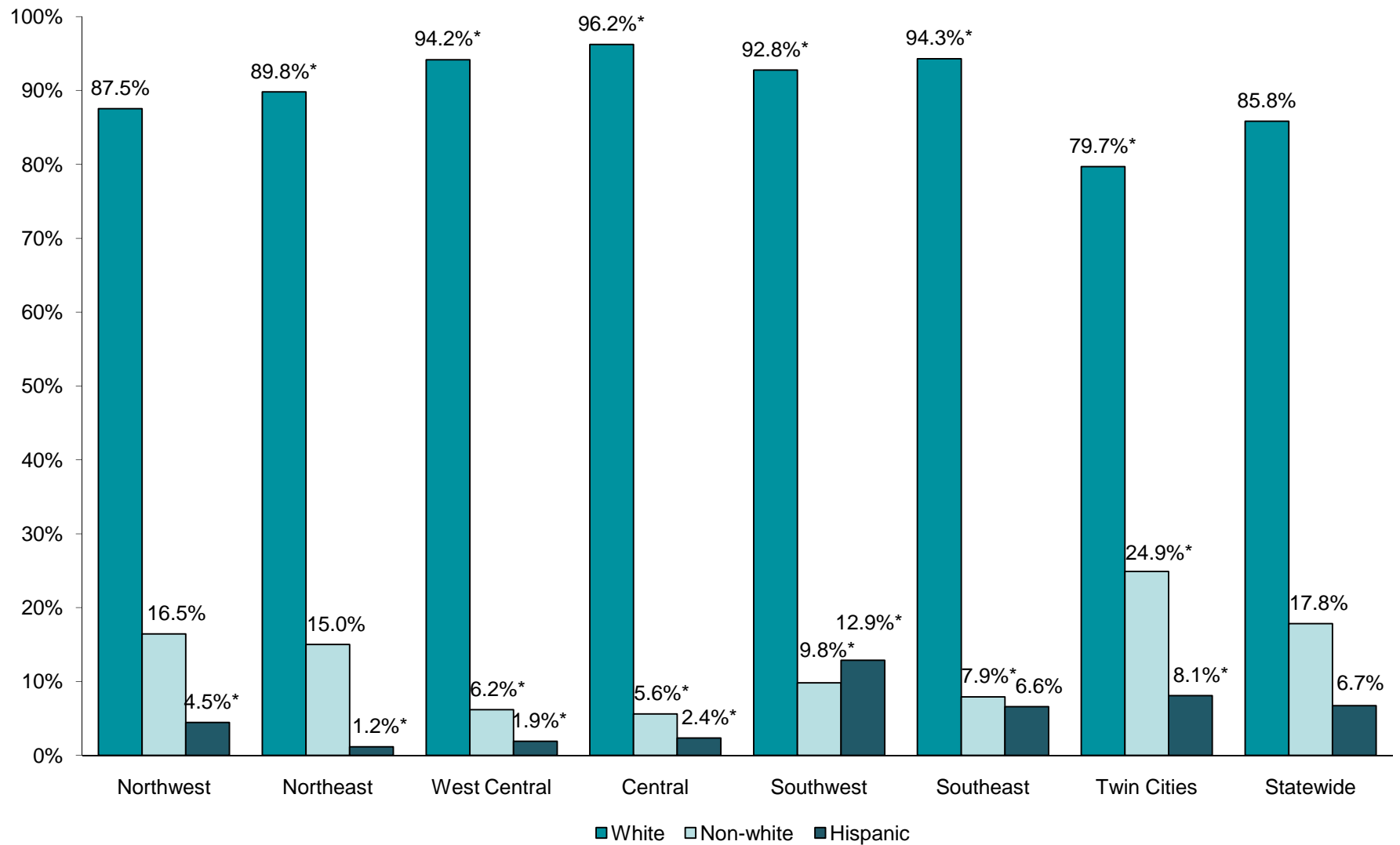


\*Indicates statistically significant difference from U.S. (95% level)

Source: American Community Survey, 2008.

Note: Distribution adds to more than 100% because individuals may indicate more than one race/ethnicity.

**Exhibit 1.5**  
**Race/ethnicity distribution of Minnesota children by region, 2008**

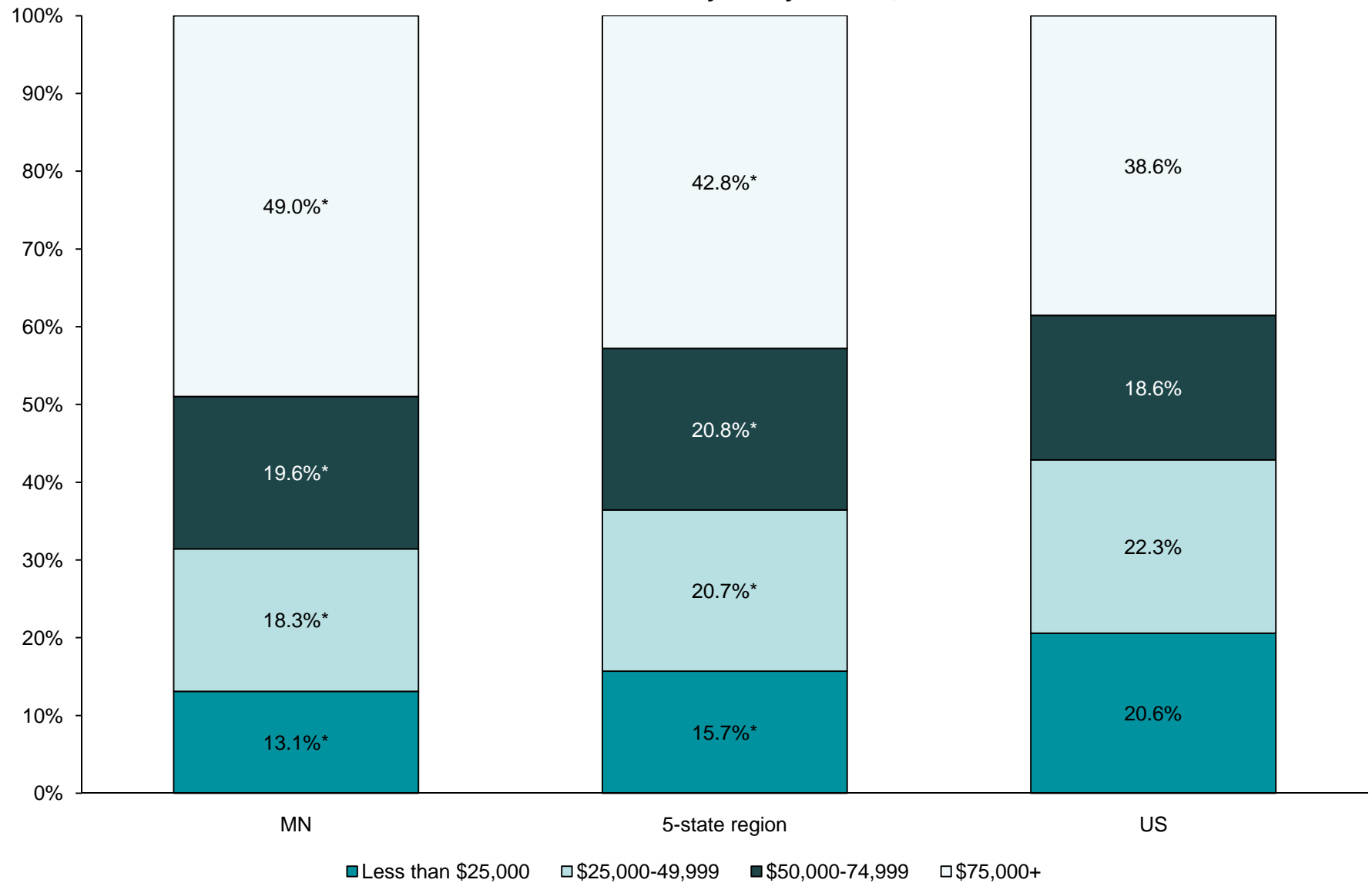


\*Indicates statistically significant difference from statewide average (95% level)

Source: American Community Survey, 2008.

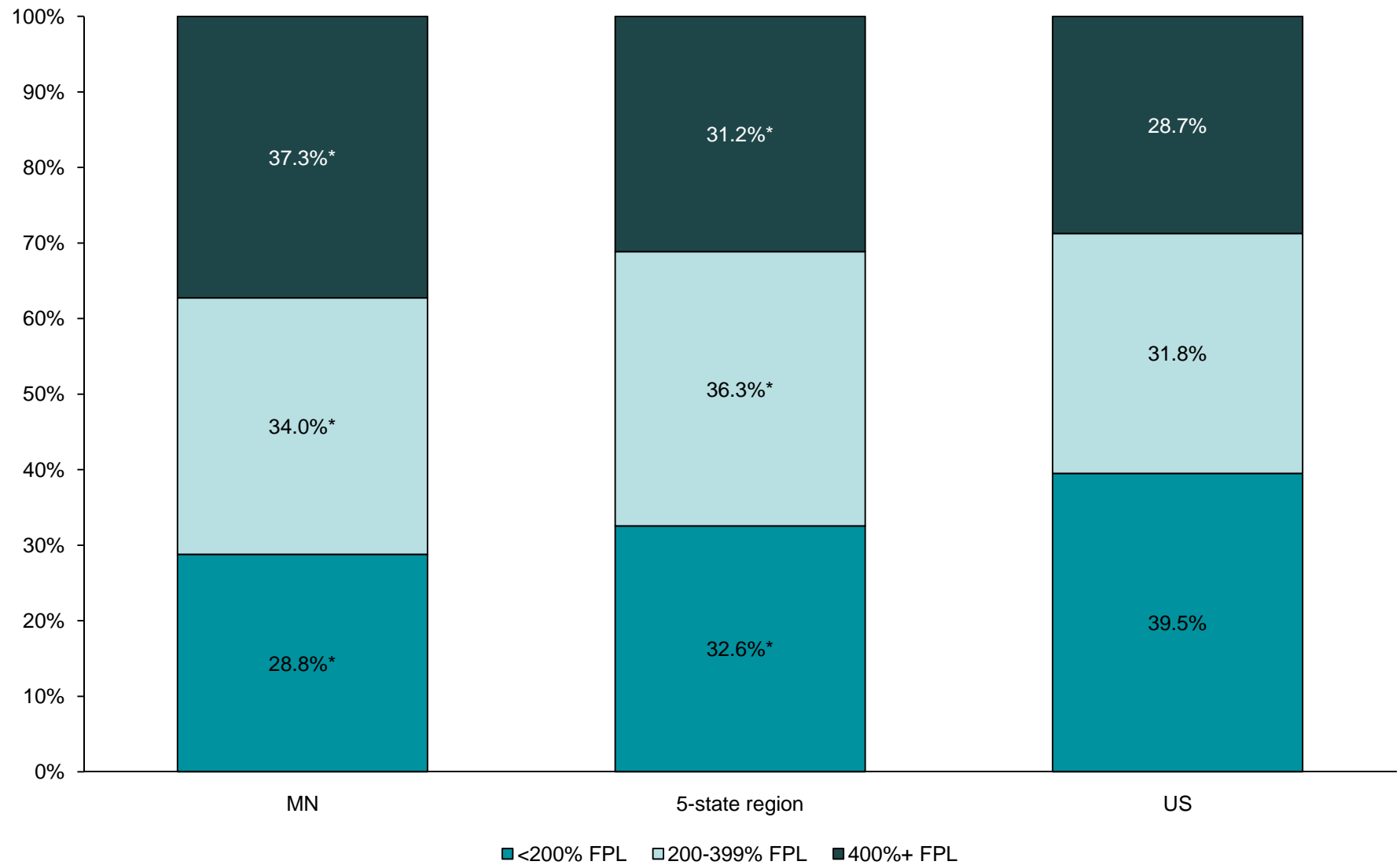
Note: Distribution adds to more than 100% because individuals may indicate more than one race/ethnicity.

**Exhibit 1.6**  
**Distribution of children by family income, 2008**



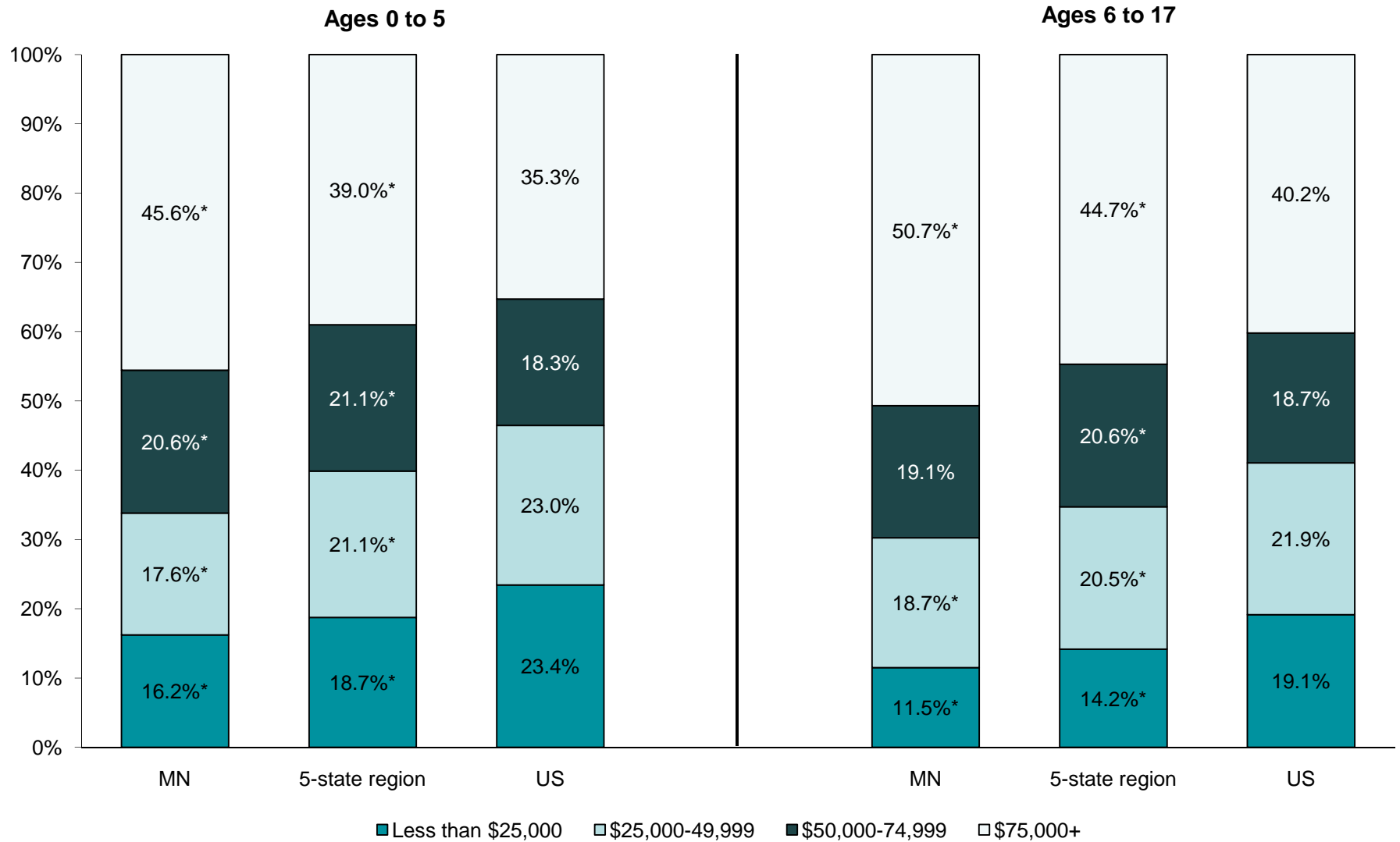
\*Indicates statistically significant difference from U.S. (95% level)  
 Source: American Community Survey, 2008.

**Exhibit 1.7**  
**Distribution of children by family income as a percentage of federal poverty level (FPL), 2008**



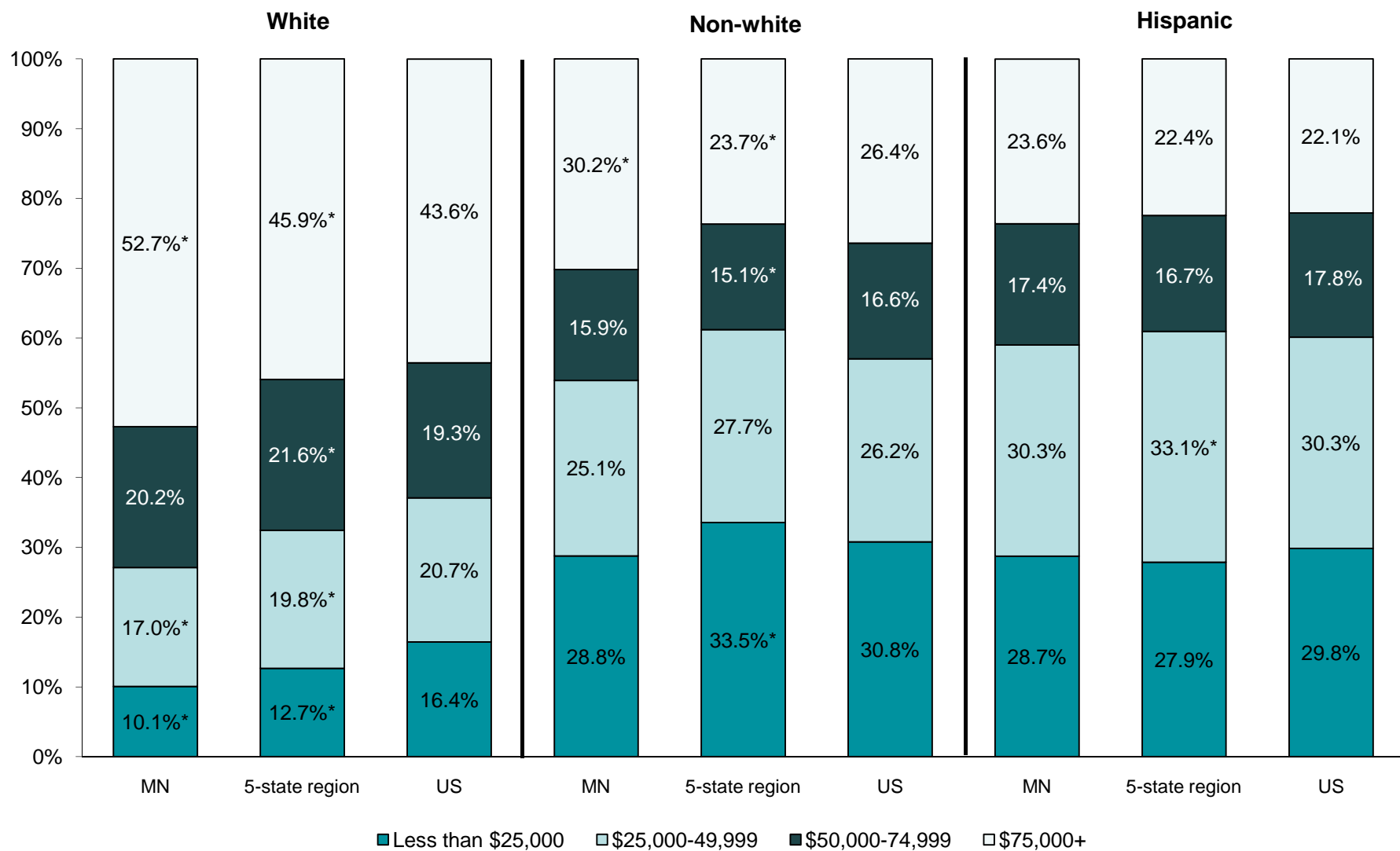
\*Indicates statistically significant difference from U.S. (95% level)  
 Source: American Community Survey, 2008.

**Exhibit 1.8**  
**Distribution of children by family income and age, 2008**



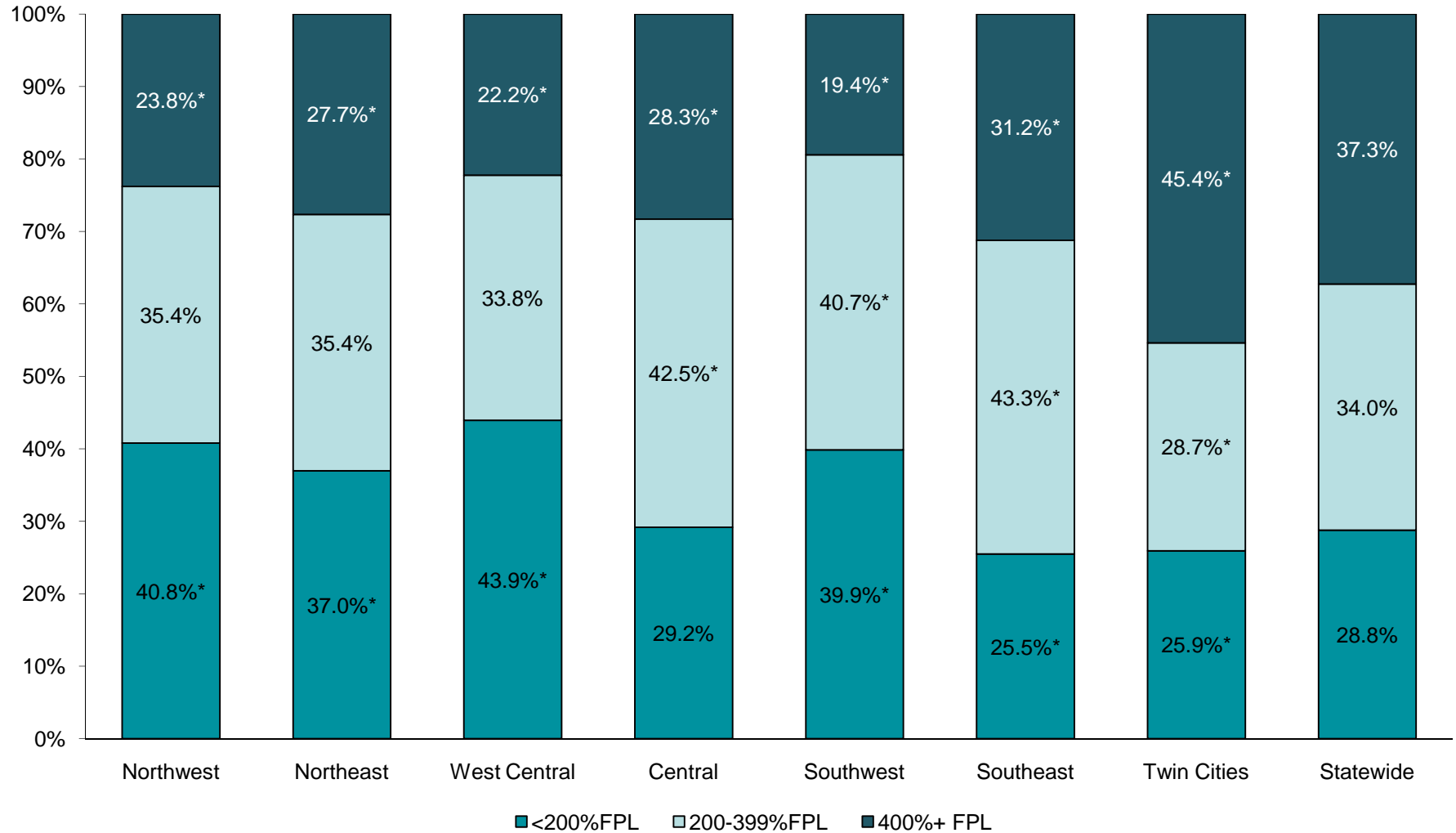
\*Indicates statistically significant difference from U.S. (95% level)  
 Source: American Community Survey, 2008.

**Exhibit 1.9**  
**Distribution of children by race/ethnicity and family income, 2008**



\*Indicates statistically significant difference from U.S. (95% level)  
 Source: American Community Survey, 2008.

**Exhibit 1.10**  
**Family income distribution of Minnesota children by region, 2008**

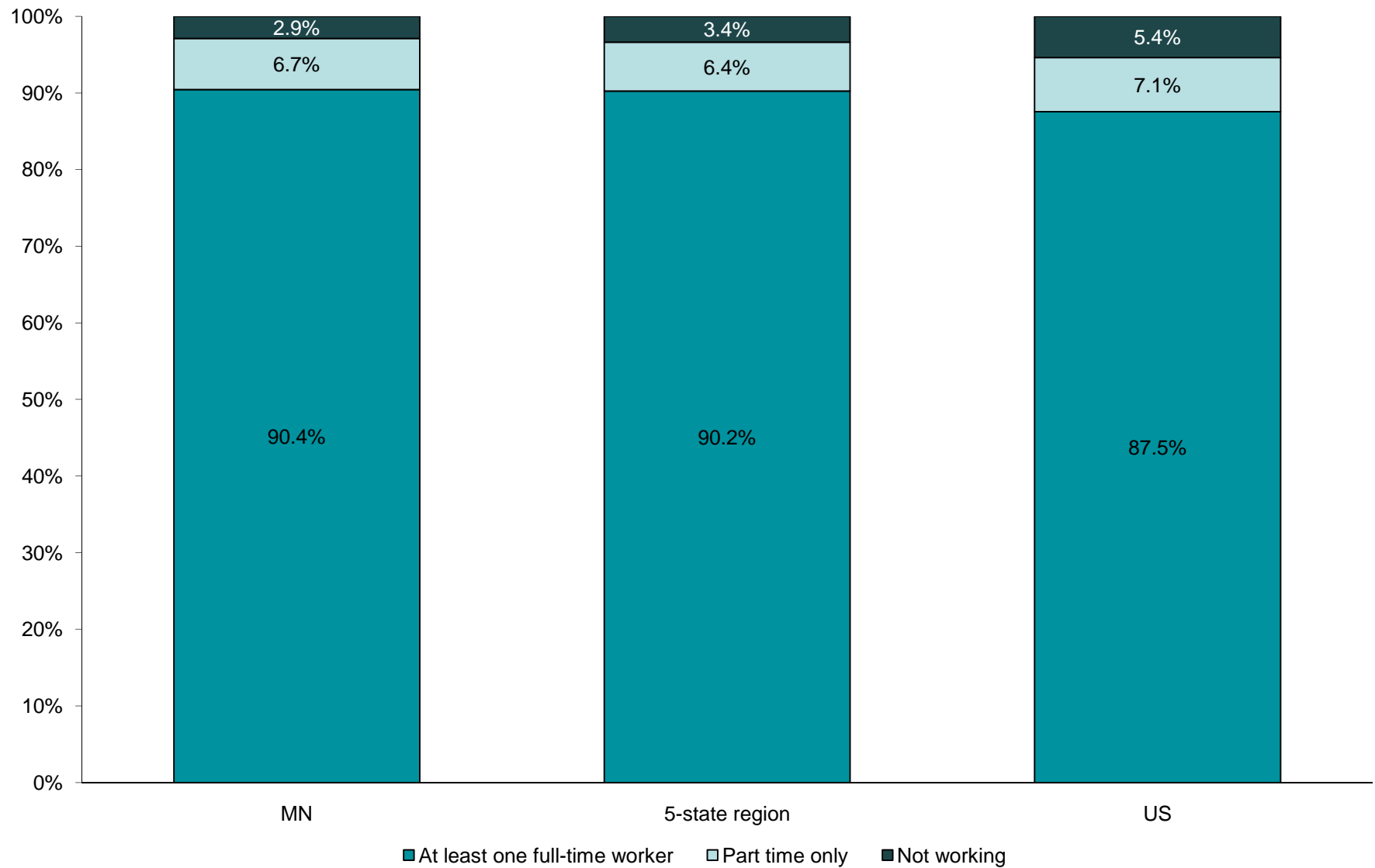


\*Indicates statistically significant difference from statewide average (95% level)

Source: American Community Survey, 2008.

Note: Family income is measured as a percentage of the federal poverty level (FPL).

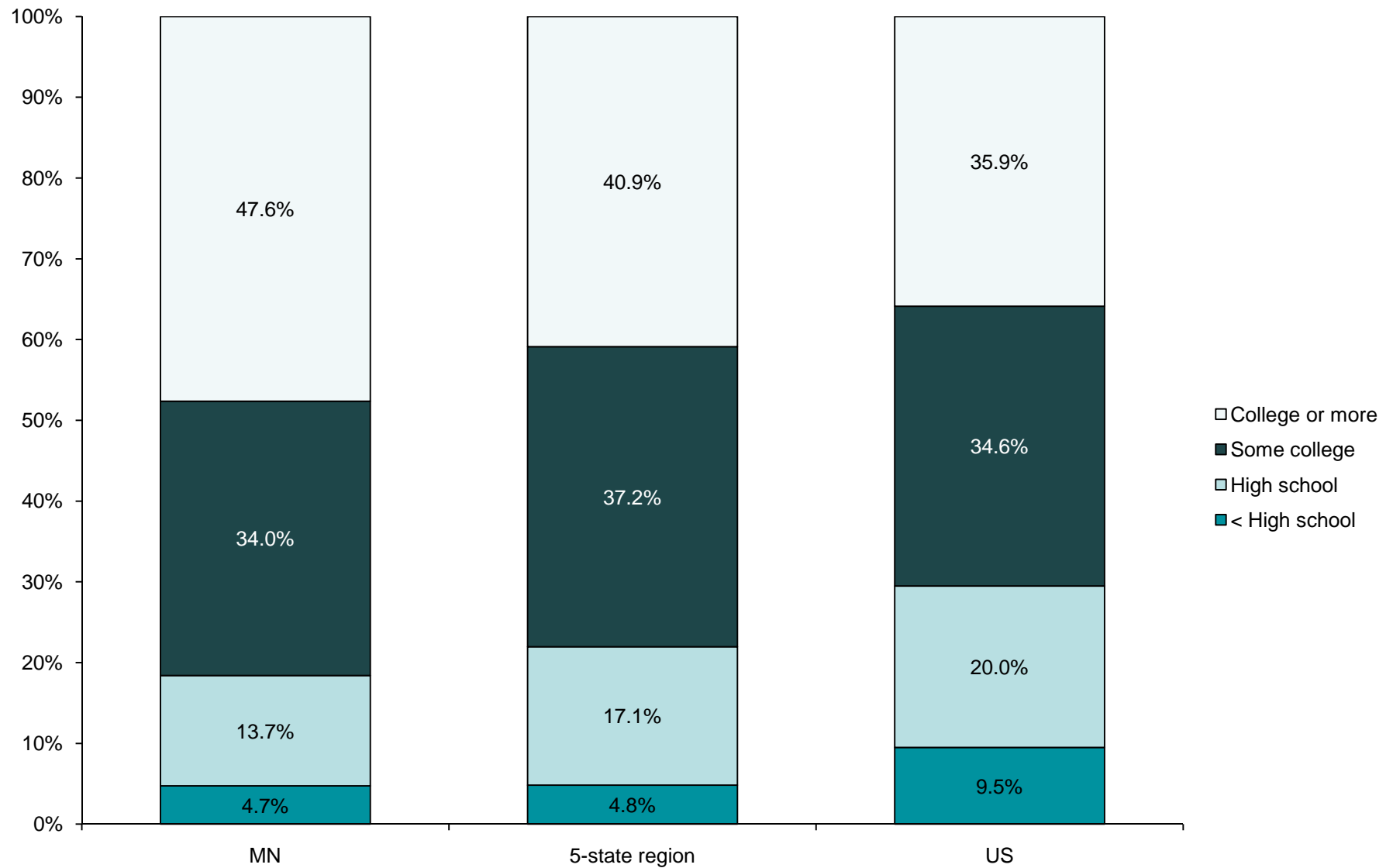
**Exhibit 1.11**  
**Distribution of children by family employment, 2008**



Source: American Community Survey, 2008.

Note: Family employment describes the immediate family member working the most in the household.

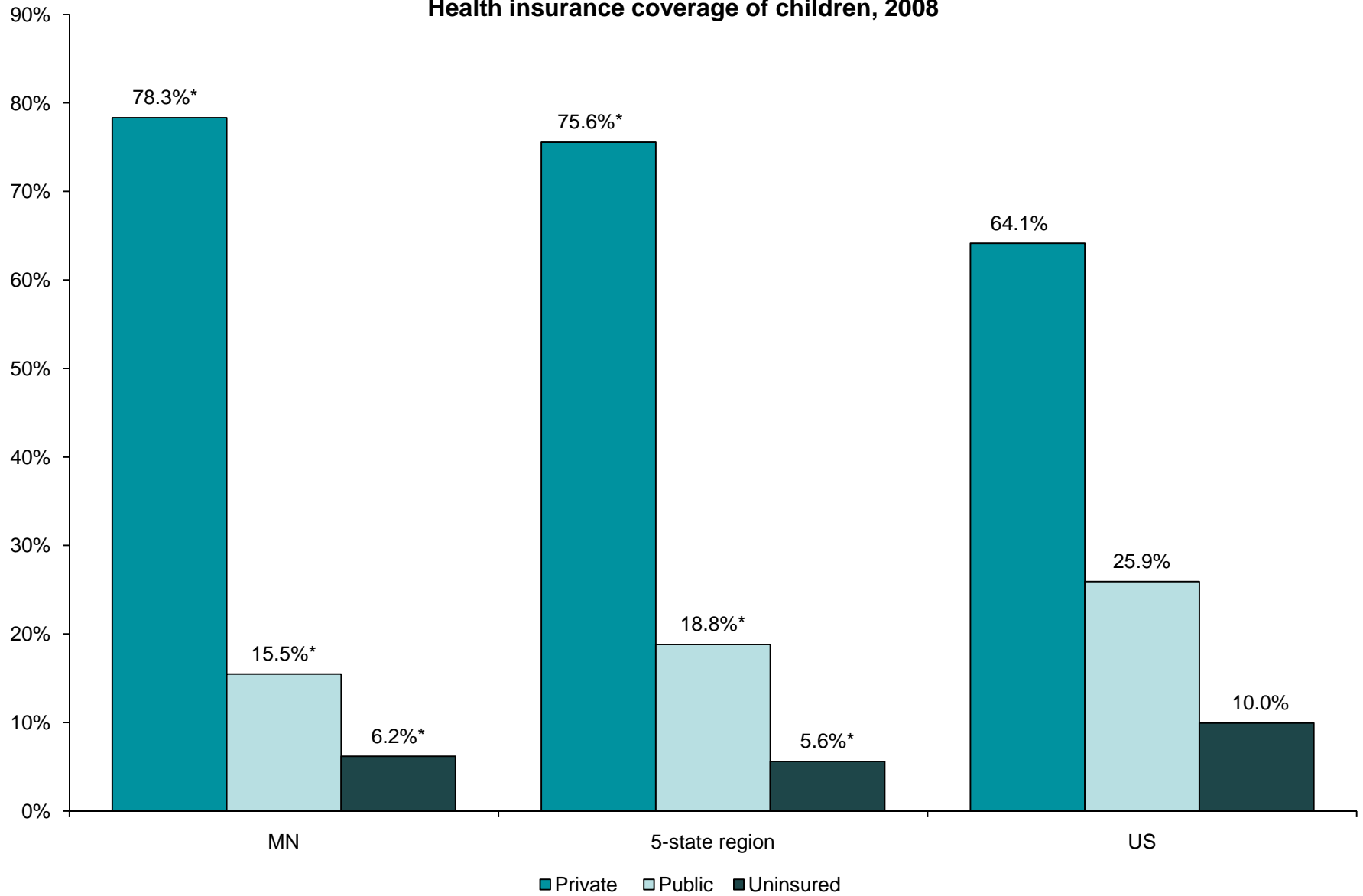
**Exhibit 1.12**  
**Distribution of children by family education, 2008**



Source: American Community Survey, 2008.

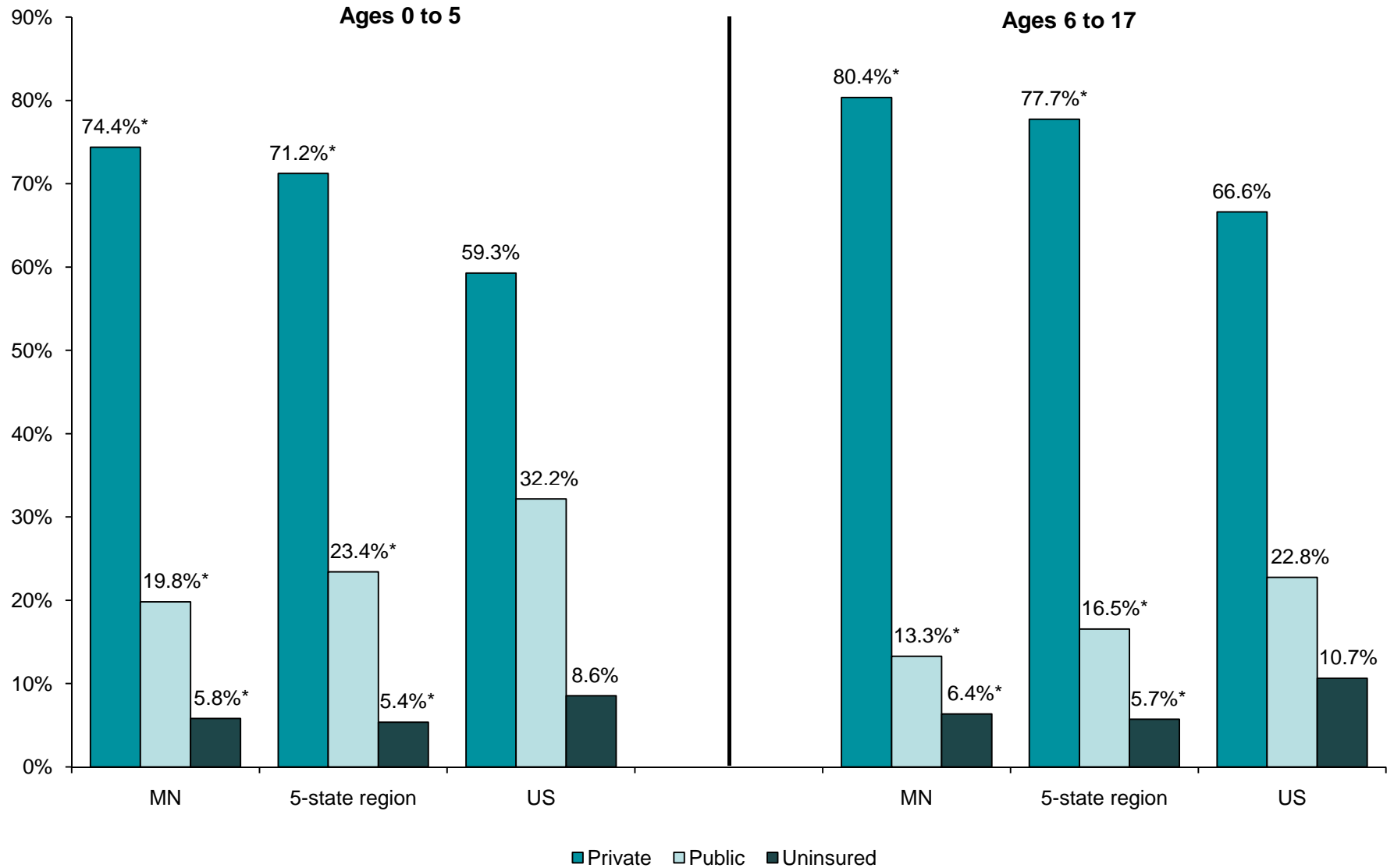
Note: Family education describes the highest level of education achieved by an immediate member of the family.

**Exhibit 2.1**  
**Health insurance coverage of children, 2008**



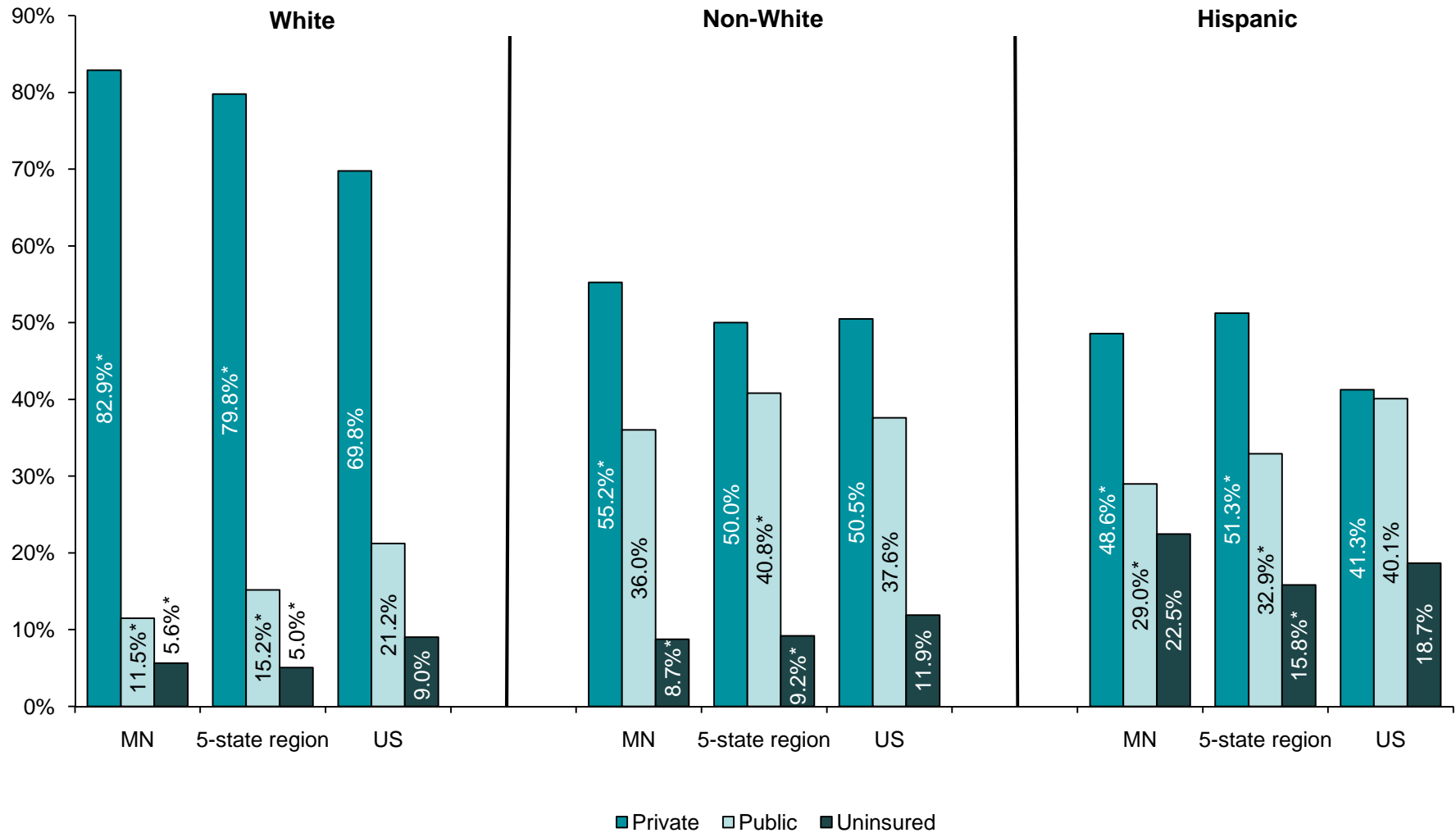
\*Indicates statistically significant difference from U.S. (95% level)  
Source: American Community Survey, 2008. Analysis by primary source of insurance coverage.

**Exhibit 2.2**  
**Health insurance coverage of children by age, 2008**



\*Indicates statistically significant difference from U.S. (95% level)  
 Source: American Community Survey, 2008. Analysis by primary source of insurance coverage.

**Exhibit 2.3**  
**Health insurance coverage of children by race/ethnicity, 2008**

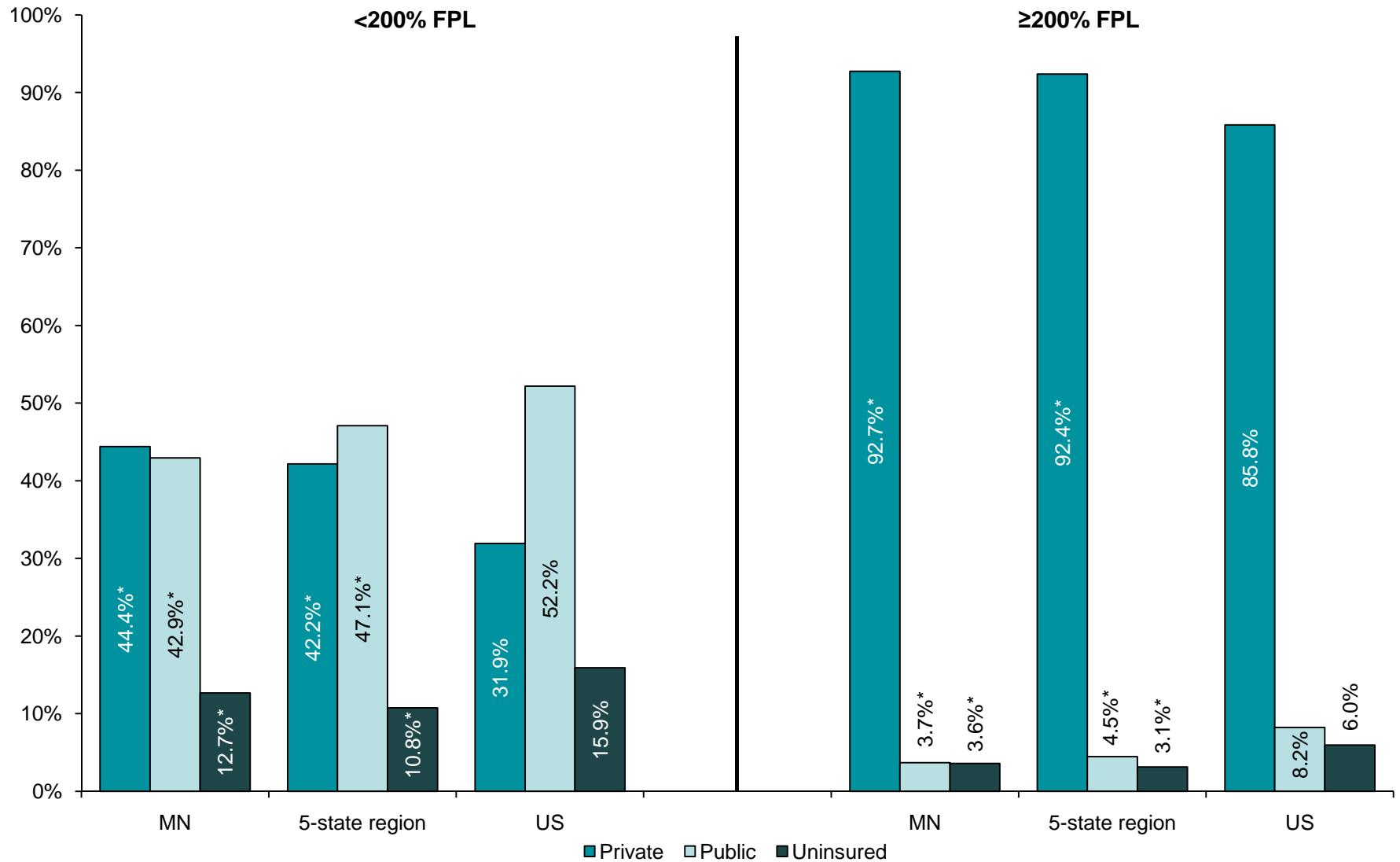


\*Indicates statistically significant difference from U.S. (95% level)

Source: American Community Survey, 2008. Analysis by primary source of insurance coverage.

Note: Race/ethnicity categories include some overlap because some children are included in more than one race/ethnicity category.

**Exhibit 2.4**  
**Health insurance coverage of children by family income, 2008**

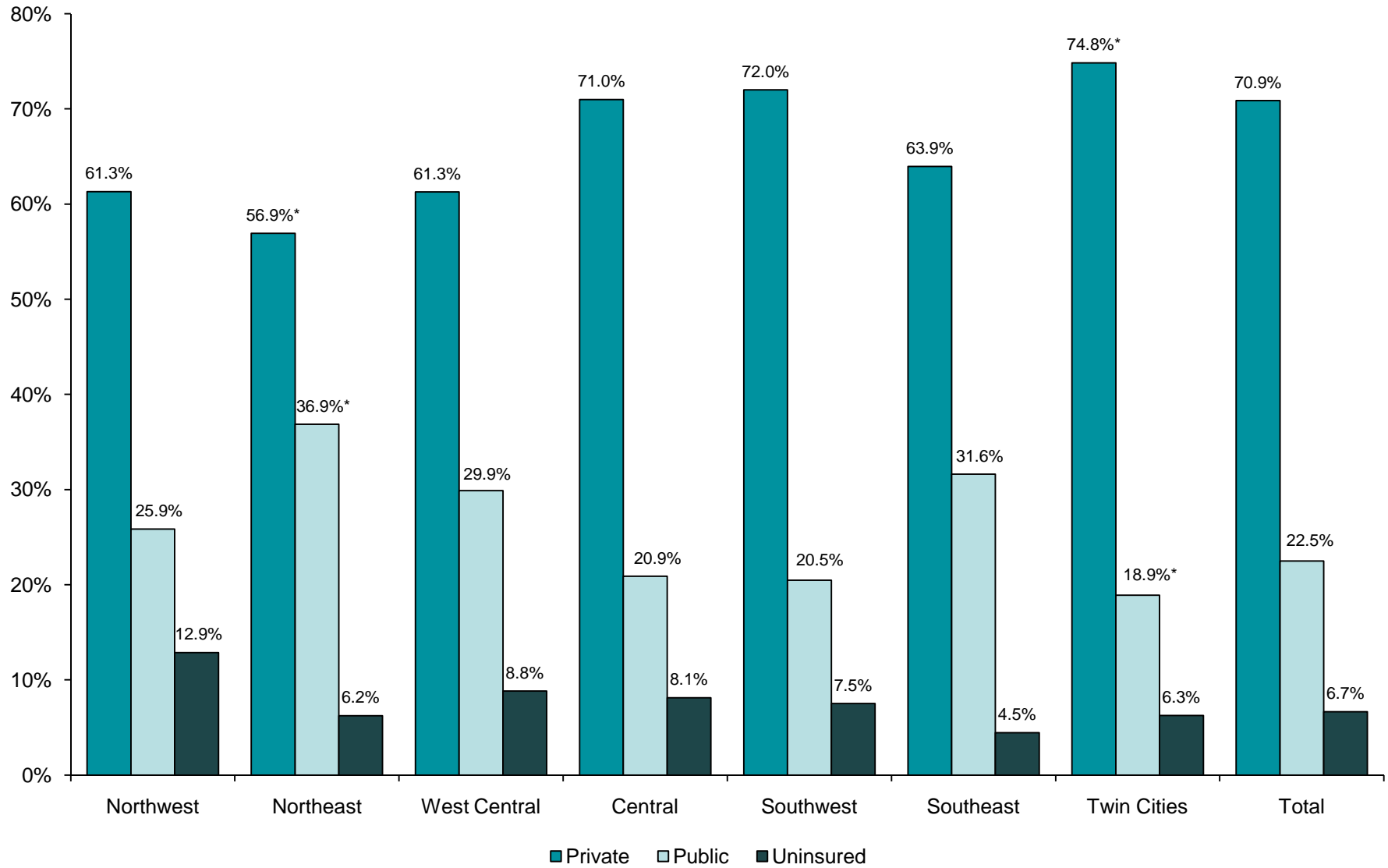


\*Indicates statistically significant difference from U.S. (95% level)

Source: American Community Survey, 2008. Analysis by primary source of insurance coverage.

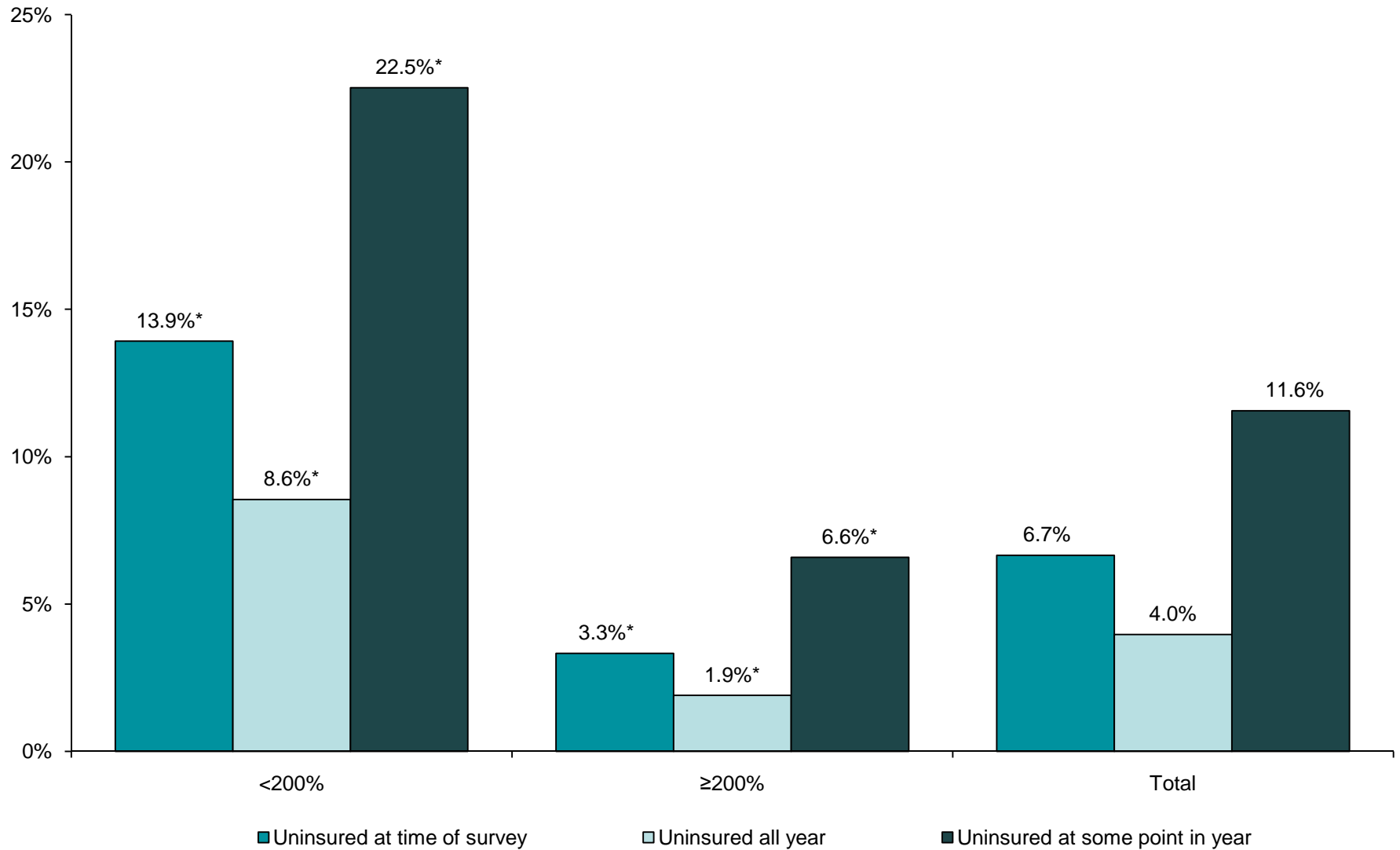
Note: Family income measured as percentage of the federal poverty level (FPL).

**Exhibit 2.5**  
**Health insurance coverage of Minnesota children by region, 2009**



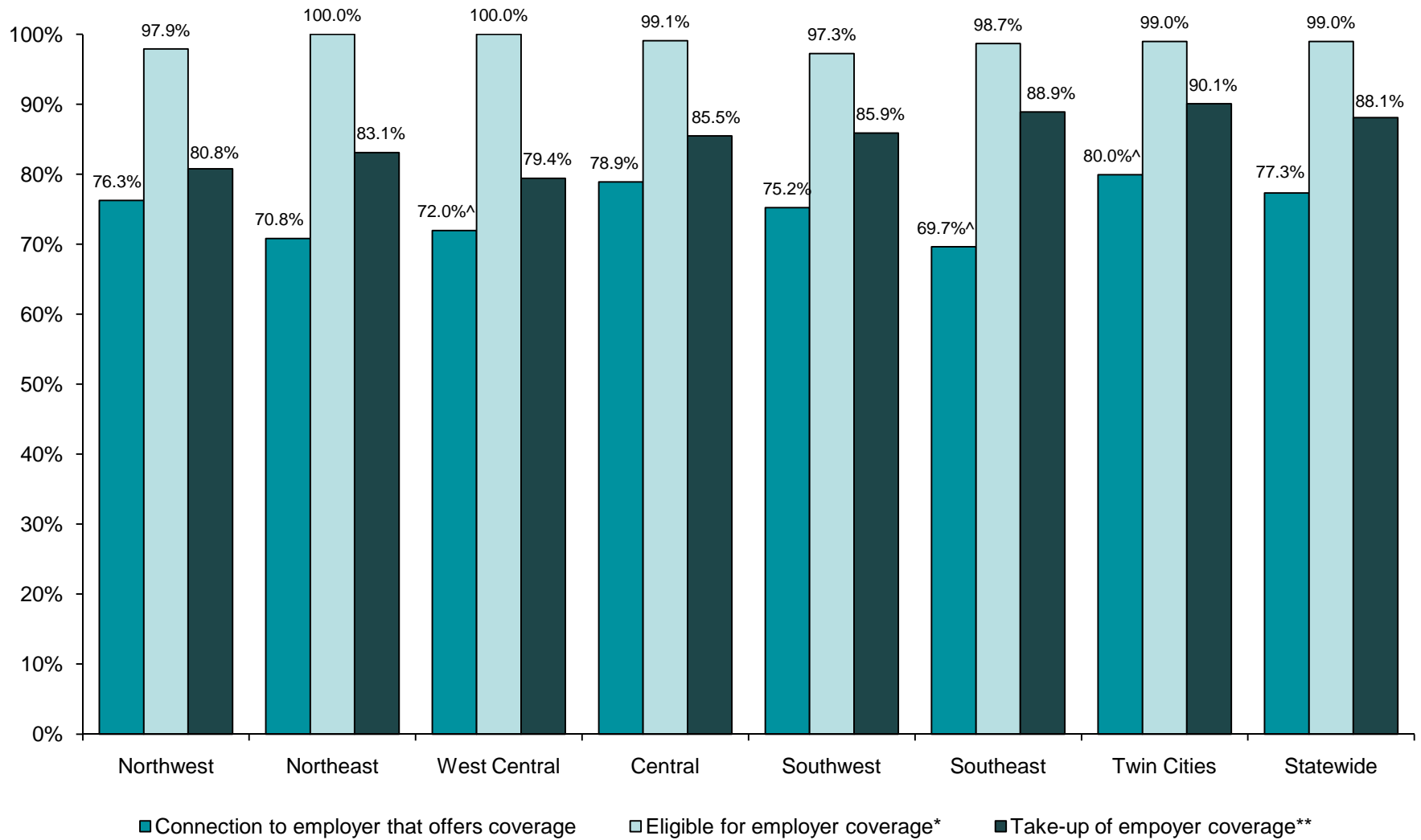
\*Indicates statistically significant different from statewide average (95% level).  
 Source: Minnesota Health Access Survey, 2009.

**Exhibit 2.6**  
**Measures of uninsurance for Minnesota children by family income, 2009**



\*Indicates statistically significant difference between income groups (95% level)  
 Source: Minnesota Health Access Survey, 2009.  
 Note: Family income measured as a percentage of the federal poverty level (FPL).

**Exhibit 2.7**  
**Minnesota children's access to employer-sponsored health insurance by region, 2009**



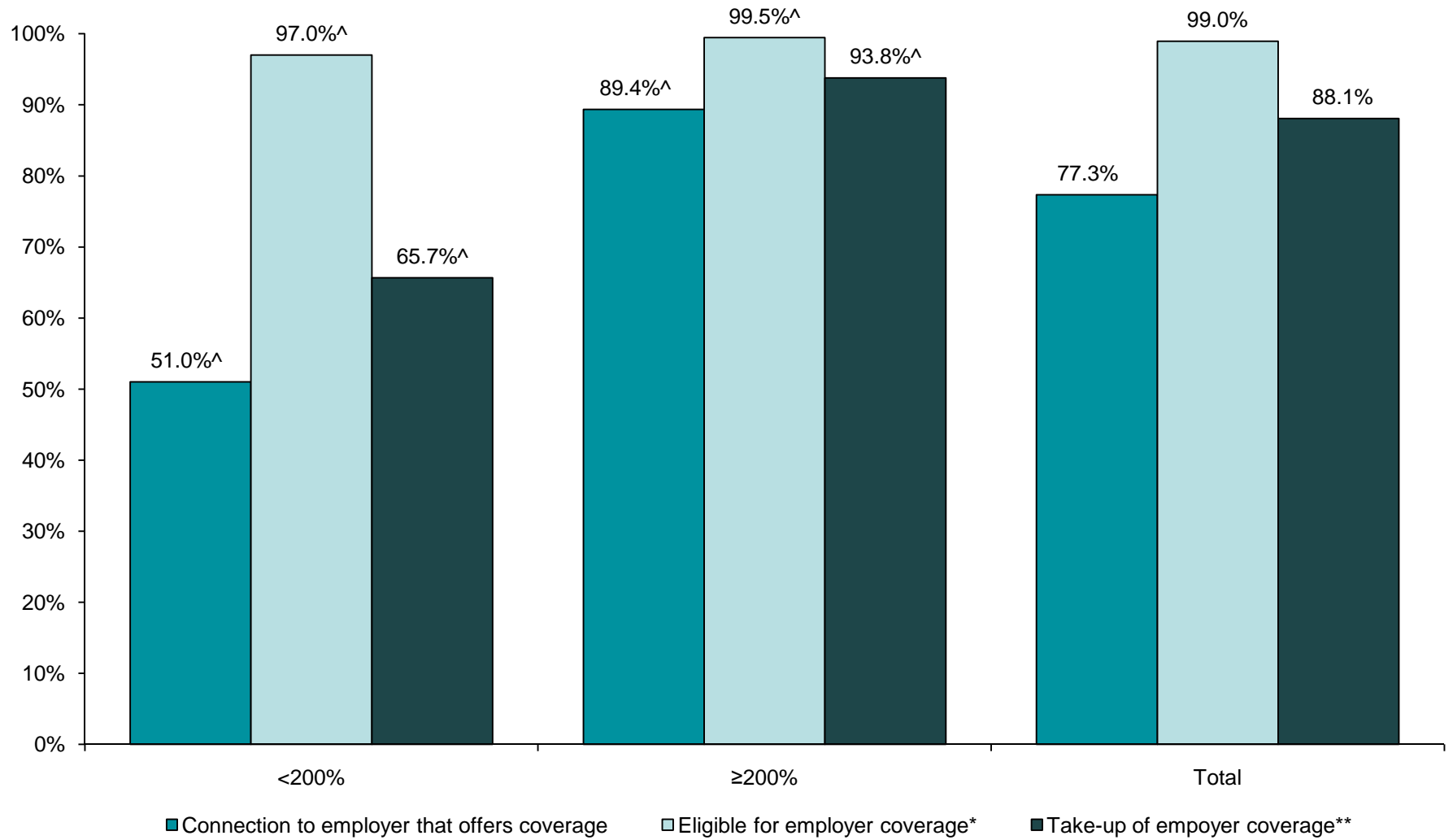
^Indicates statistically significant difference from statewide average (95% level).

Source: Minnesota Health Access Survey, 2009.

\*Among children with a connection to an employer that offers coverage.

\*\*Among children eligible to enroll in employer coverage.

**Exhibit 2.8**  
**Minnesota children's access to employer-sponsored health insurance by family income, 2009**



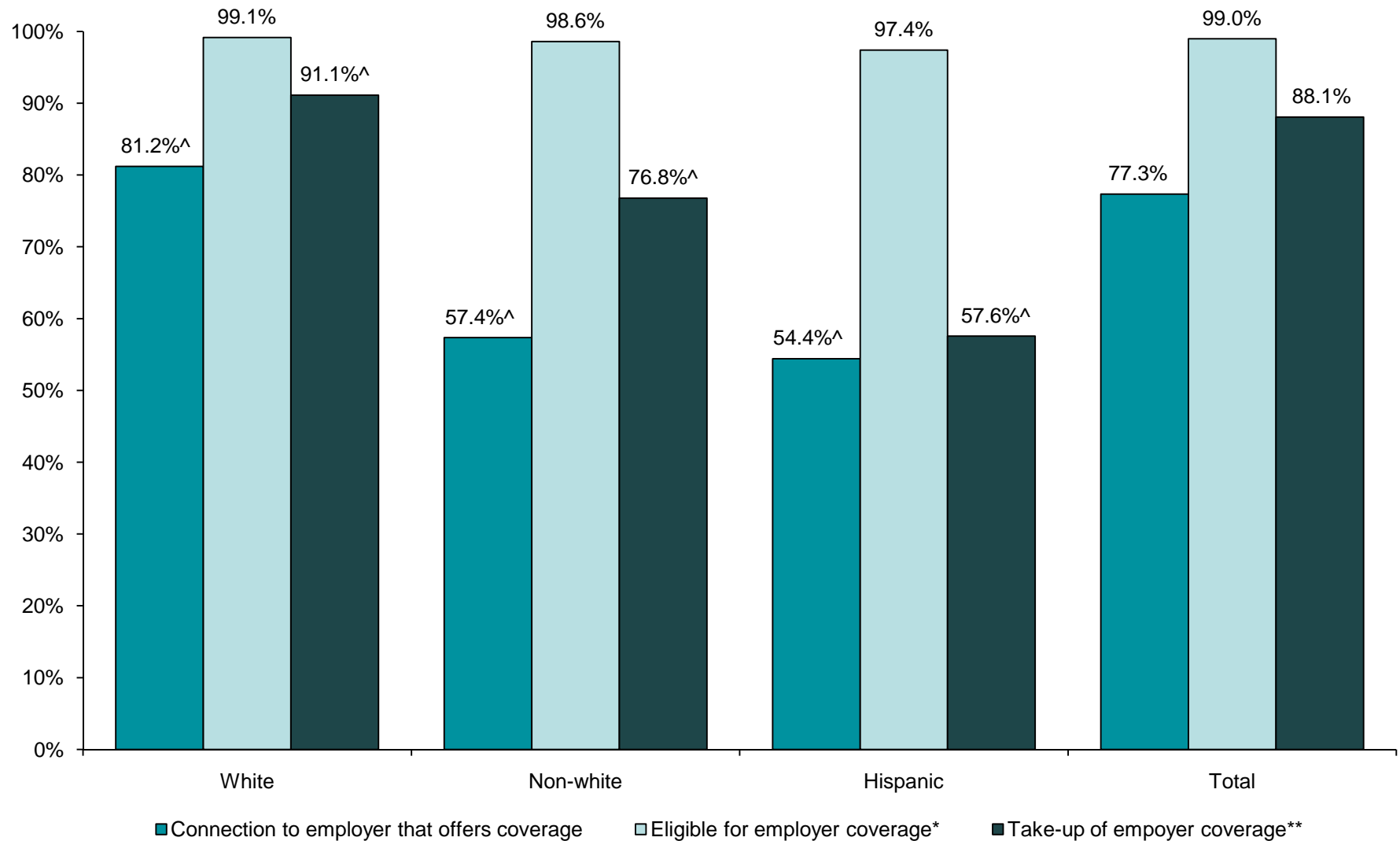
^Indicates statistically significant difference between income groups (95% level).  
 Source: Minnesota Health Access Survey, 2009.

Note: Family income measured as a percentage of federal poverty level (FPL).

\*Among children with a connection to an employer that offers coverage.

\*\*Among children eligible to enroll in employer coverage.

**Exhibit 2.9**  
**Minnesota children's access to employer-sponsored health insurance by race/ethnicity, 2009**



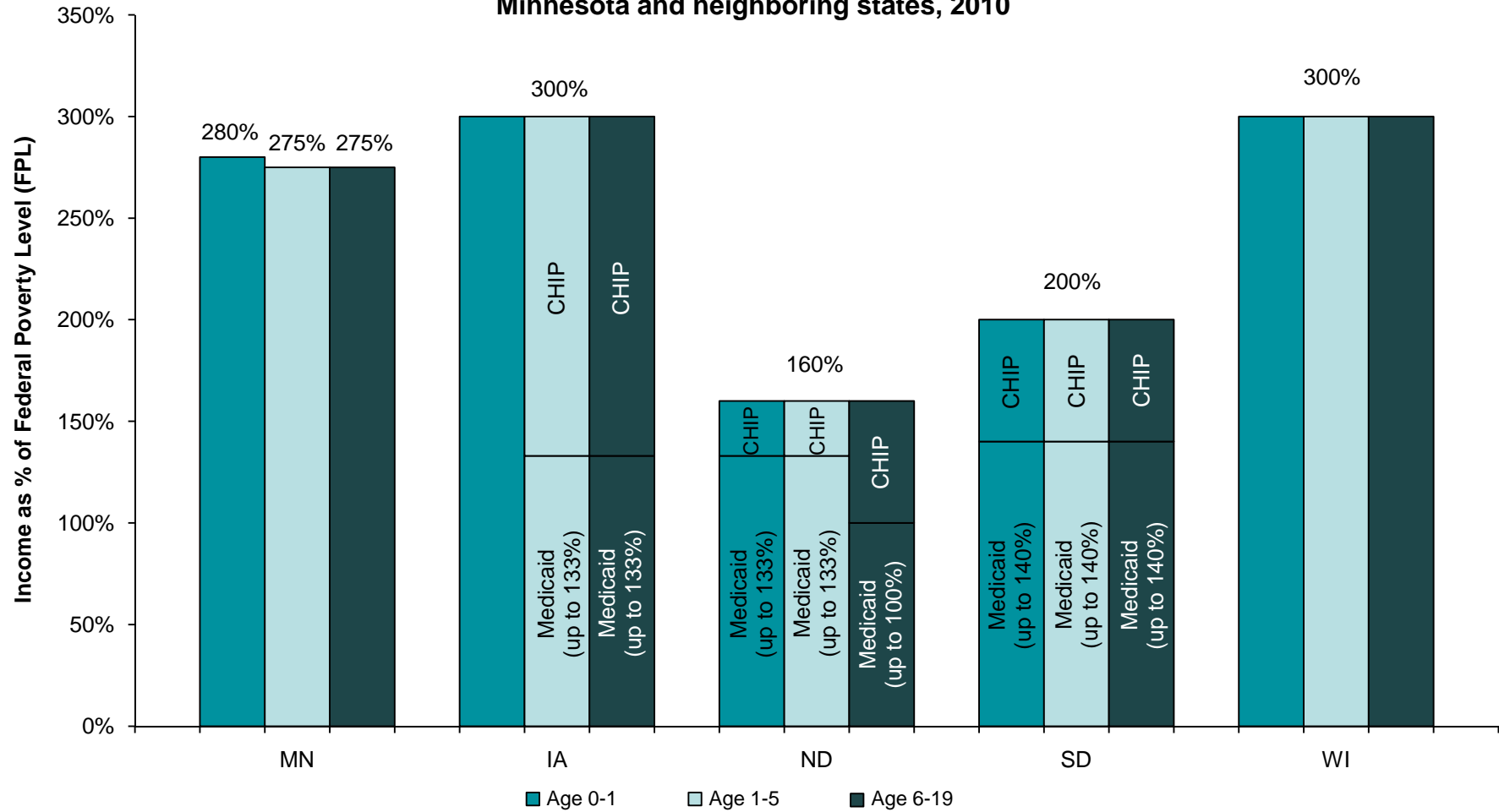
^Indicates a statistically significant difference from statewide average (95% level).

Source: Minnesota Health Access Survey, 2009.

\*Among children with a connection to an employer that offers coverage.

\*\*Among children eligible to enroll in employer coverage.

**Exhibit 2.10**  
**Income guidelines for children's public insurance eligibility,**  
**Minnesota and neighboring states, 2010**

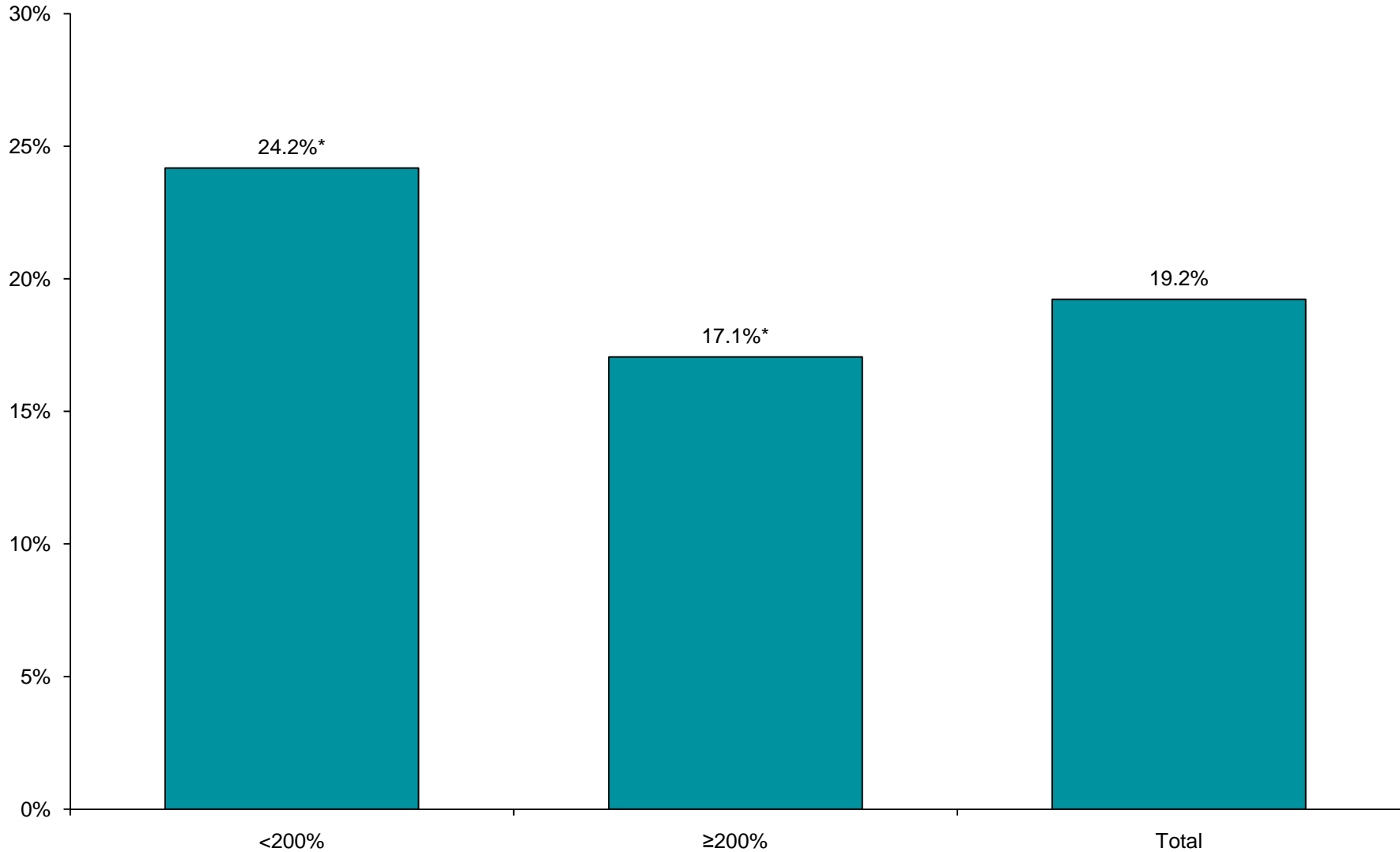


Source: Source: Kaiser State Health Facts, retrieved from [www.statehealthfacts.org](http://www.statehealthfacts.org) on May 7, 2010.

1. In Minnesota, the infant category under "regular" Medicaid includes children up to age 2. Under "regular" Medicaid, income eligibility for infants is up to 275 percent of the federal poverty line, and under CHIP, eligibility for infants is between 275 percent and 280 percent of the federal poverty line. Under "regular" Medicaid, income eligibility for children ages 2-19 is up to 150 percent of the federal poverty line, and under the Section 1115 waiver, income eligibility for children in this age group is between 150 and 275 percent of the federal poverty line. The Section 1115 waiver provides coverage for children up to age 21.

2. In Wisconsin, the state receives Medicaid reimbursement for children up to 250 percent of the federal poverty line and children with incomes between 251 percent and 300 percent of the federal poverty line are covered with state funds. Wisconsin has submitted a state plan amendment to receive federal matching funds (retroactive to July 1, 2008) for children in families with income up to 300 percent of the federal poverty line.

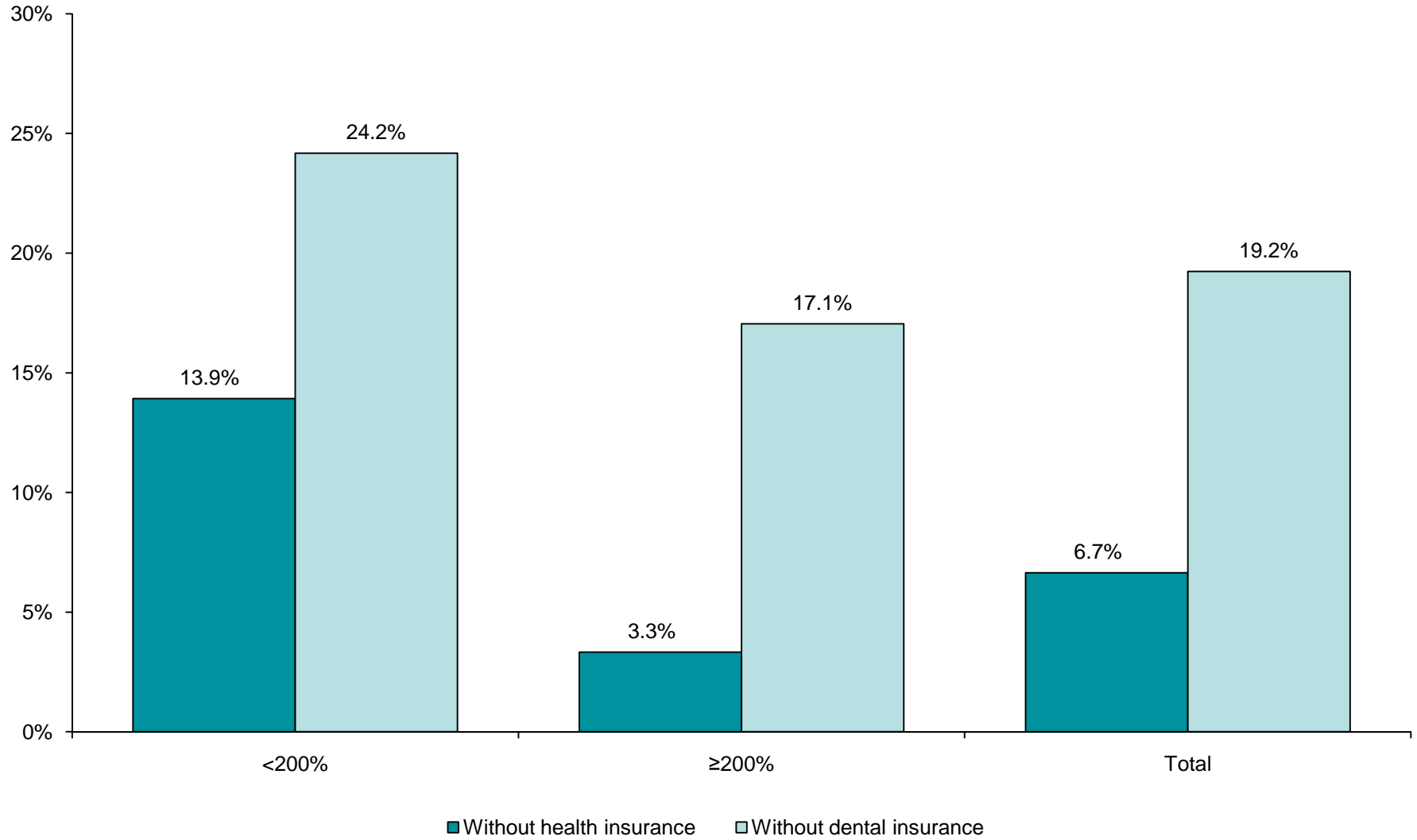
**Exhibit 2.11**  
**Percent of Minnesota children without dental insurance by family income, 2009**



\*Indicates statistically significant difference between income groups (95% level).  
Source: Minnesota Health Access Survey, 2009.  
Note: Estimate for children ages 3 to 17. Family income measured as percentage of federal poverty level (FPL).

2.12

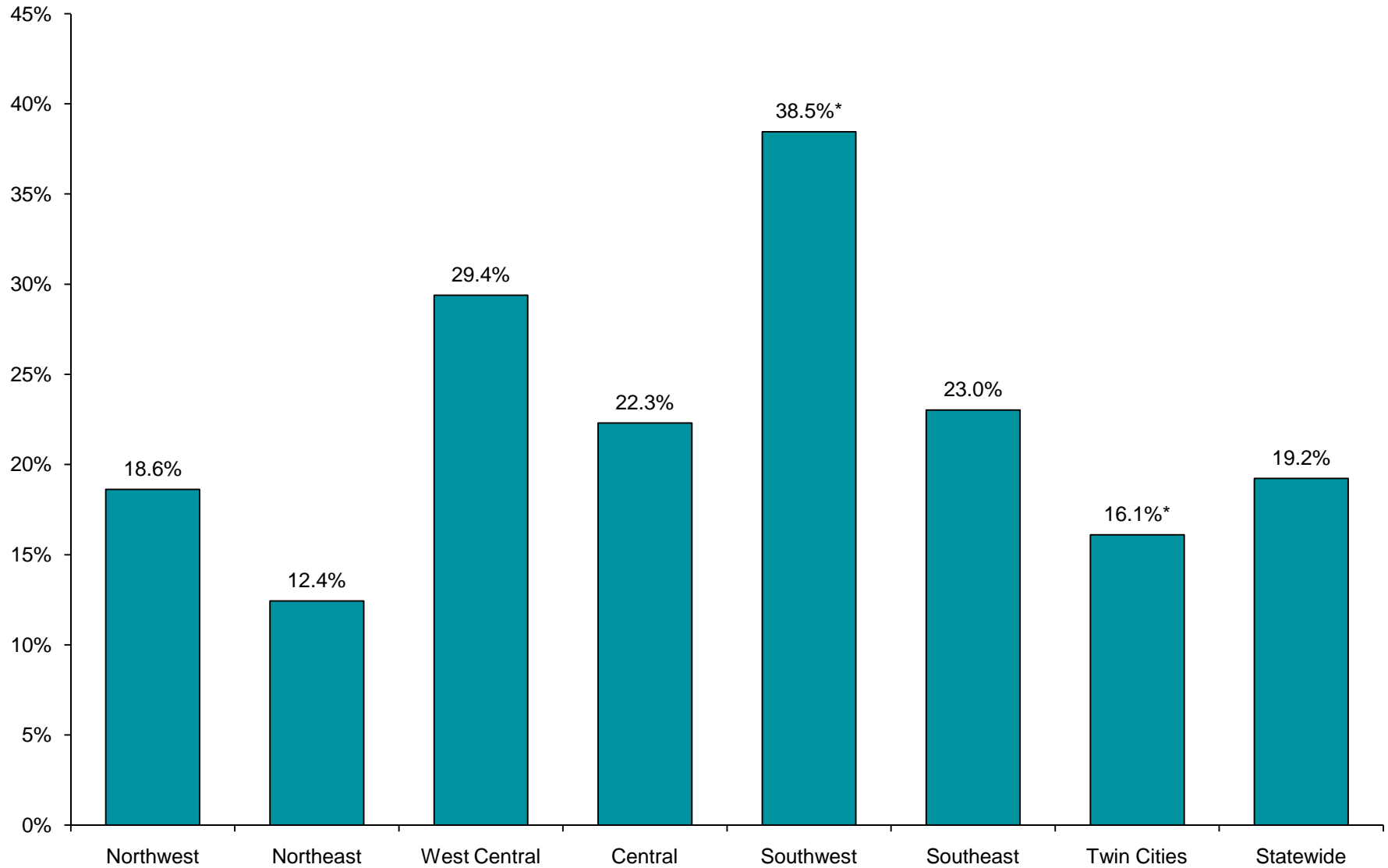
Percent of Minnesota children without health insurance compared to percent without dental insurance, by family income, 2009



Source: Minnesota Health Access Survey, 2009.

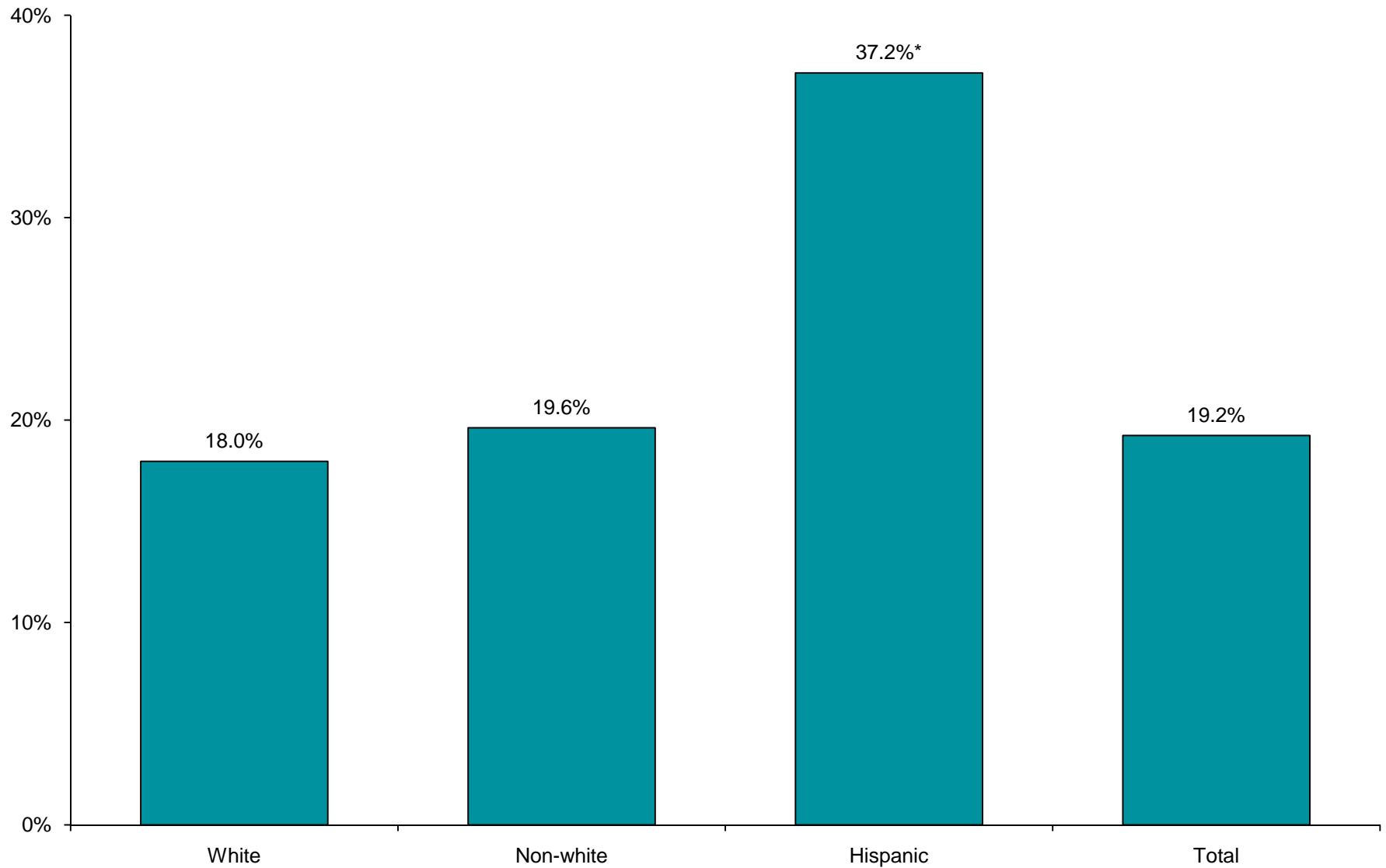
Note: Family income measured as a percentage of federal poverty level (FPL).

**Exhibit 2.13**  
**Percent of Minnesota children without dental insurance by region, 2009**



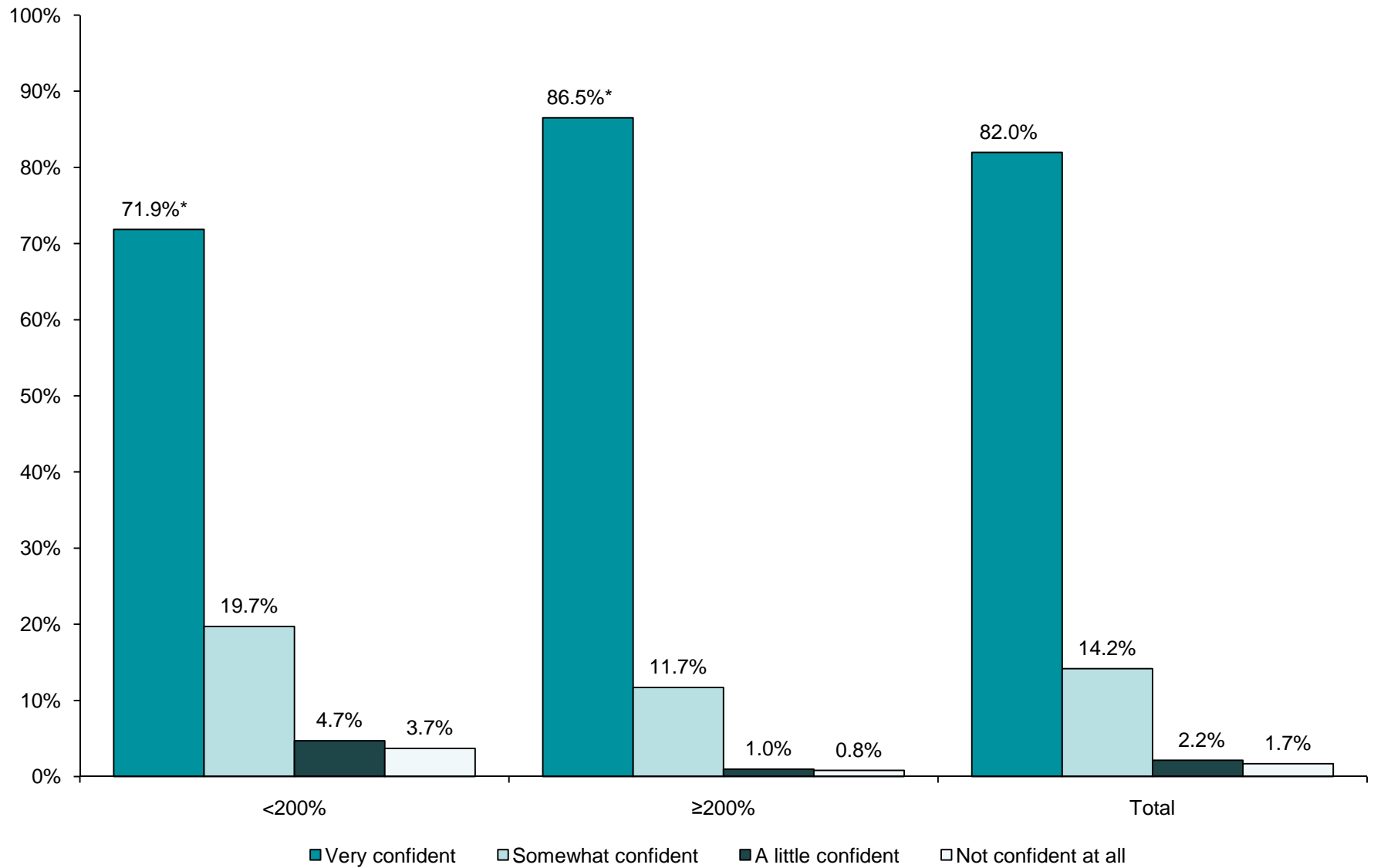
\*Indicates statistically significant different from statewide average (\*95% level).  
Source: Minnesota Health Access Survey, 2009, estimate for children ages 3 to 17.

**Exhibit 2.14**  
**Percent of Minnesota children without dental insurance by race/ethnicity, 2009**



\*Indicates statistically significant difference from statewide average (95% level).  
Source: Minnesota Health Access Survey, 2009, estimate for children ages 3 to 17.

**Exhibit 2.15**  
**Confidence in ability to get needed care for Minnesota children by family income, 2009**

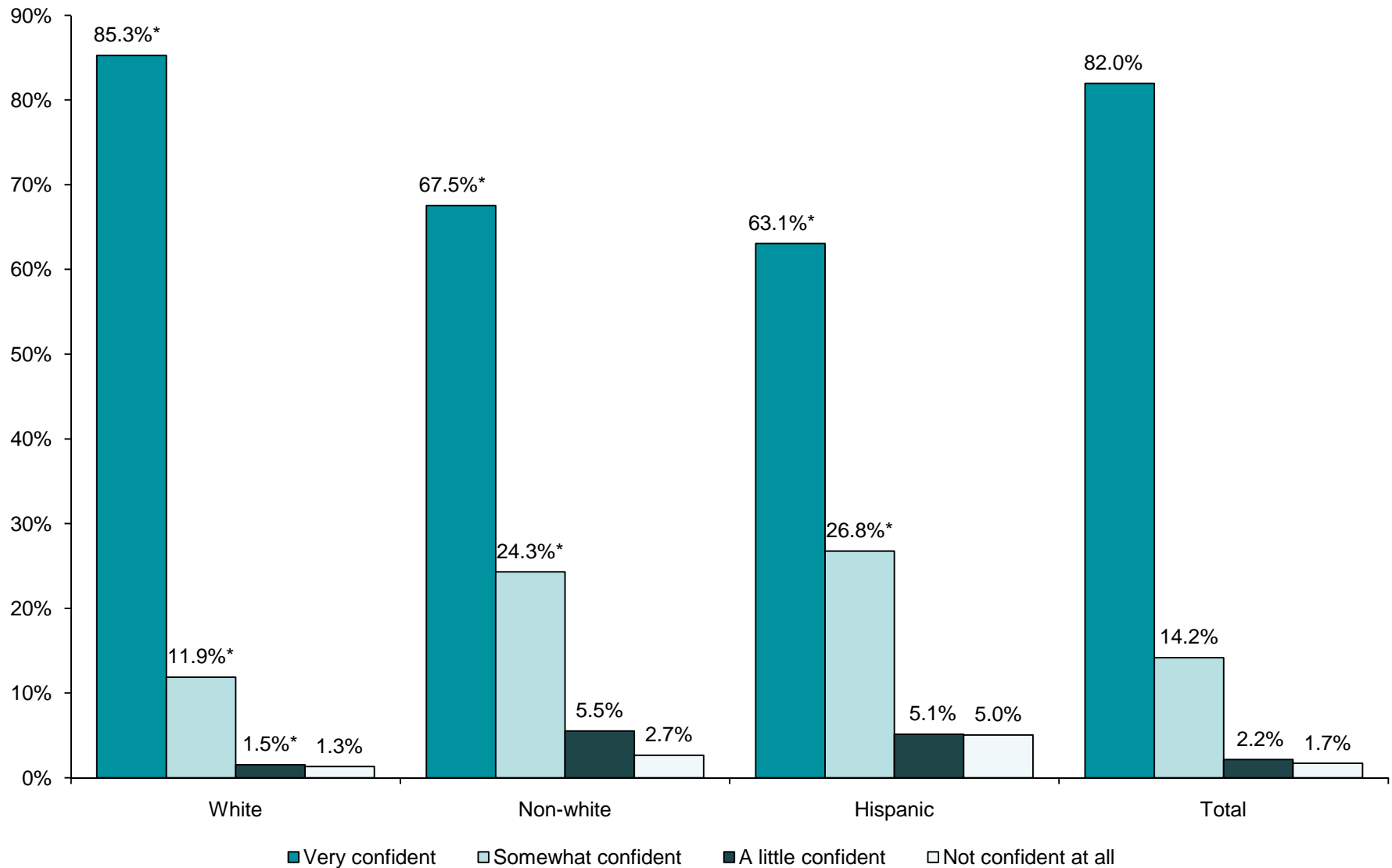


\*Indicates statistically significant difference from statewide average (95% level).

Source: Minnesota Health Access Survey, 2009.

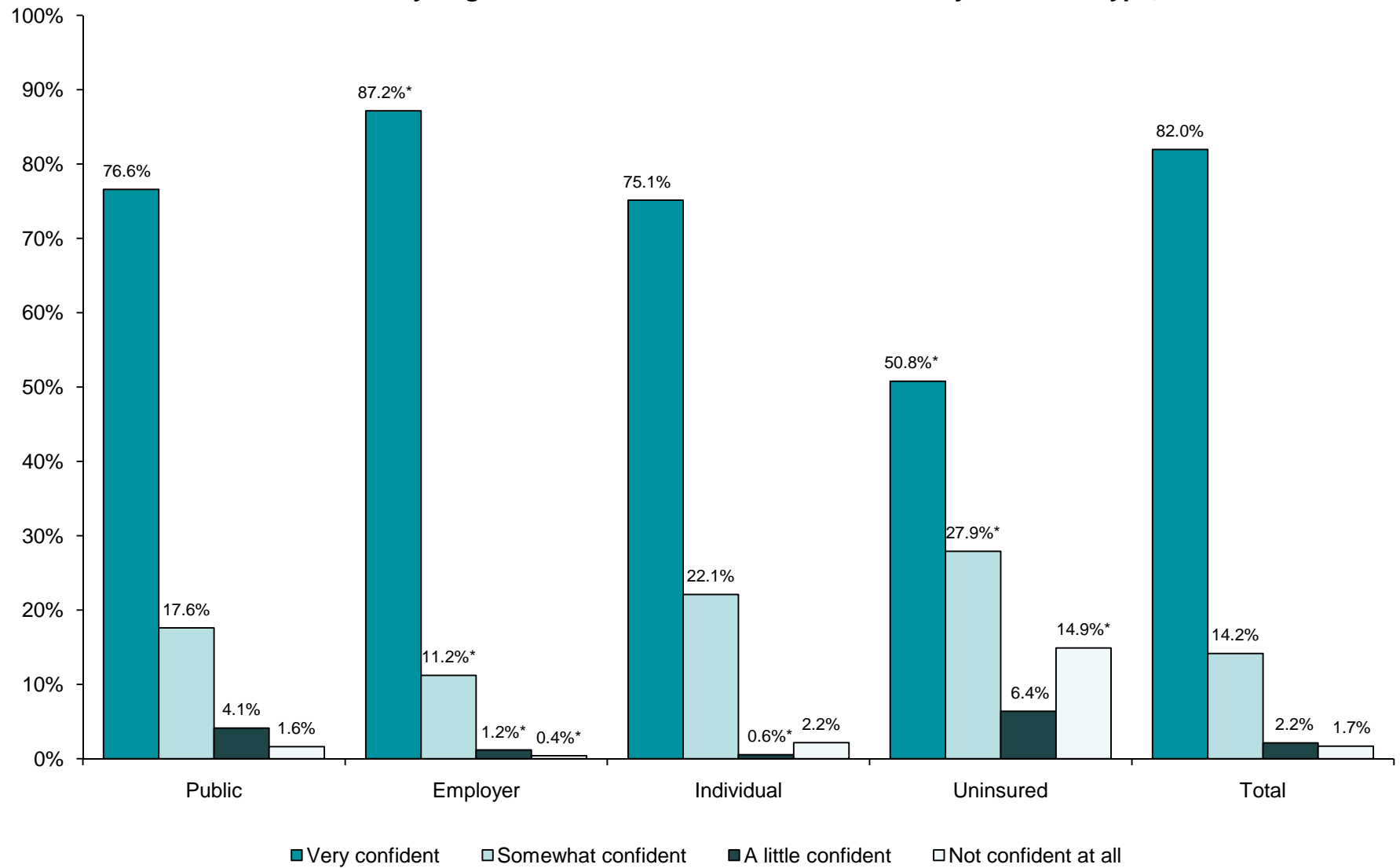
Note: Family income measured as percent of federal poverty level (FPL).

**Exhibit 2.16**  
**Confidence in ability to get needed care for Minnesota children by race/ethnicity, 2009**



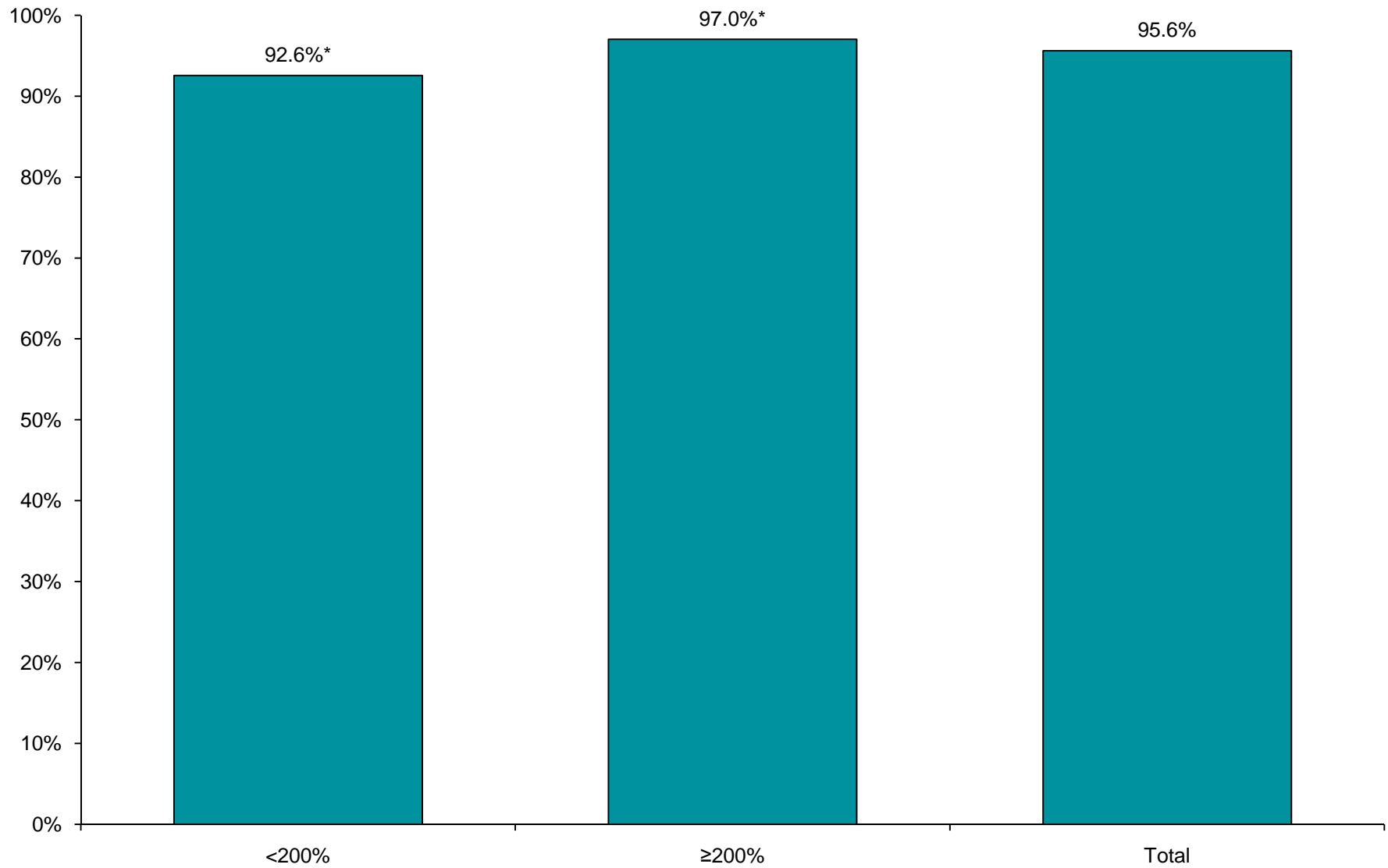
\*Indicates statistically significant difference from statewide average (95% level).  
 Source: Minnesota Health Access Survey, 2009.

**Exhibit 2.17**  
**Confidence in ability to get needed care for Minnesota children by insurance type, 2009**



\*Indicates statistically significant difference from statewide average (95% level).  
 Source: Minnesota Health Access Survey, 2009.

**Exhibit 3.1**  
**Percent of Minnesota children with a usual source of care by family income, 2009**

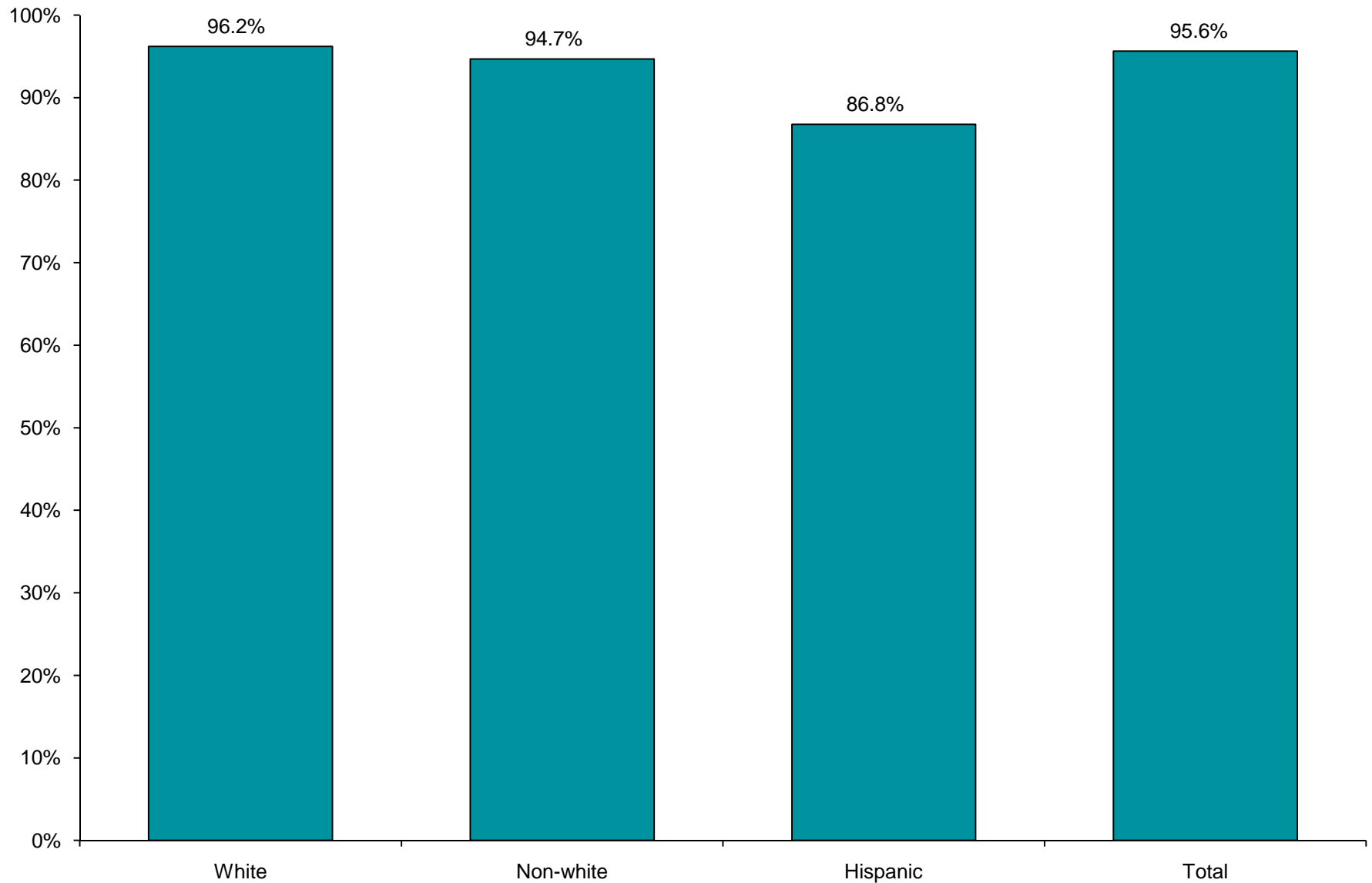


\*Indicates statistically significant difference between income levels (95% level).

Source: Minnesota Health Access Survey, 2009.

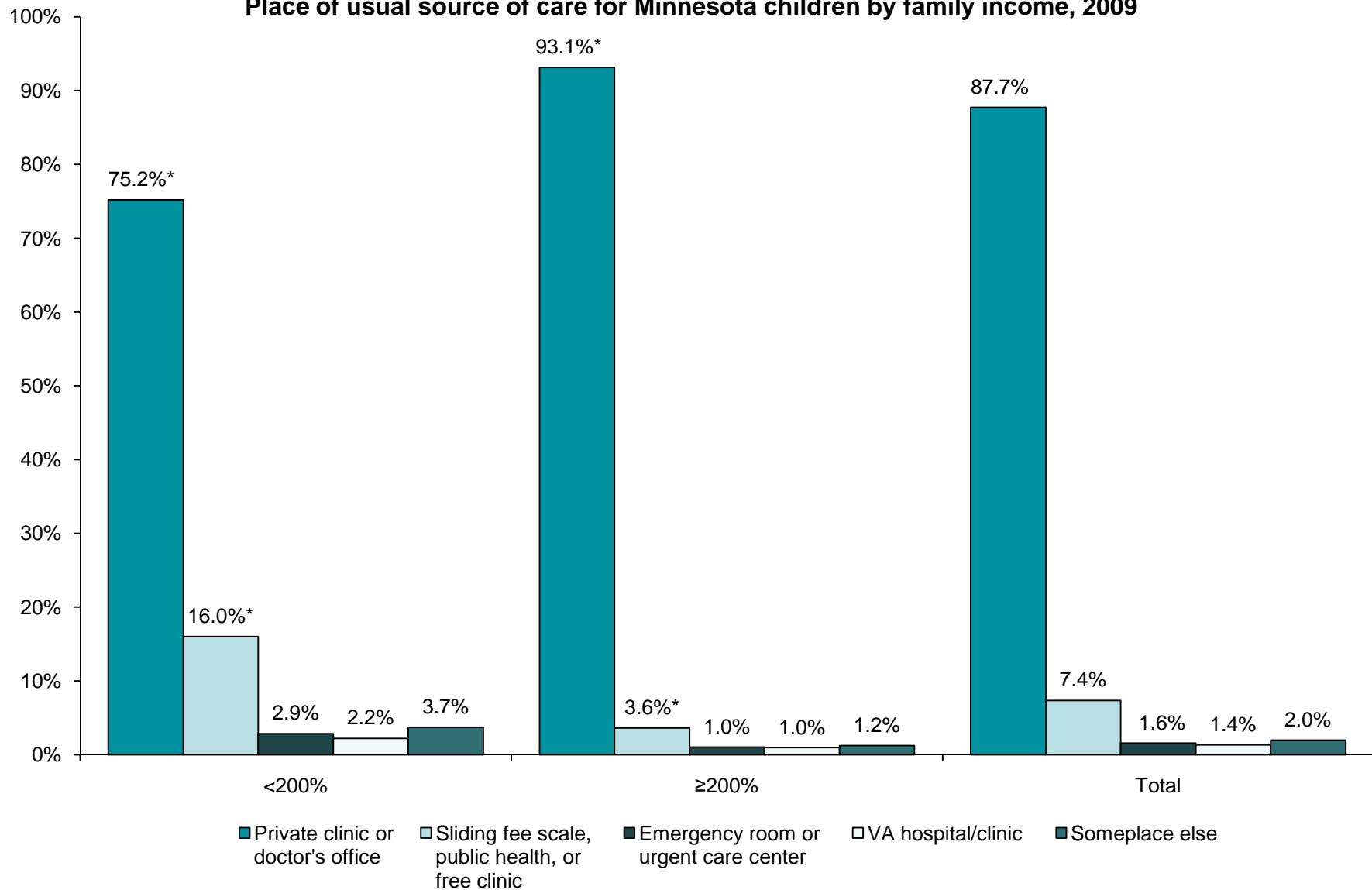
Note: Family income measured as a percentage of the federal poverty level (FPI.)

**Exhibit 3.2**  
**Percent of Minnesota children with a usual source of care by race/ethnicity, 2009**



Rates for race/ethnicity groups are not statistically different from the statewide rate.  
Source: Minnesota Health Access Survey, 2009.

**Exhibit 3.3**  
**Place of usual source of care for Minnesota children by family income, 2009**

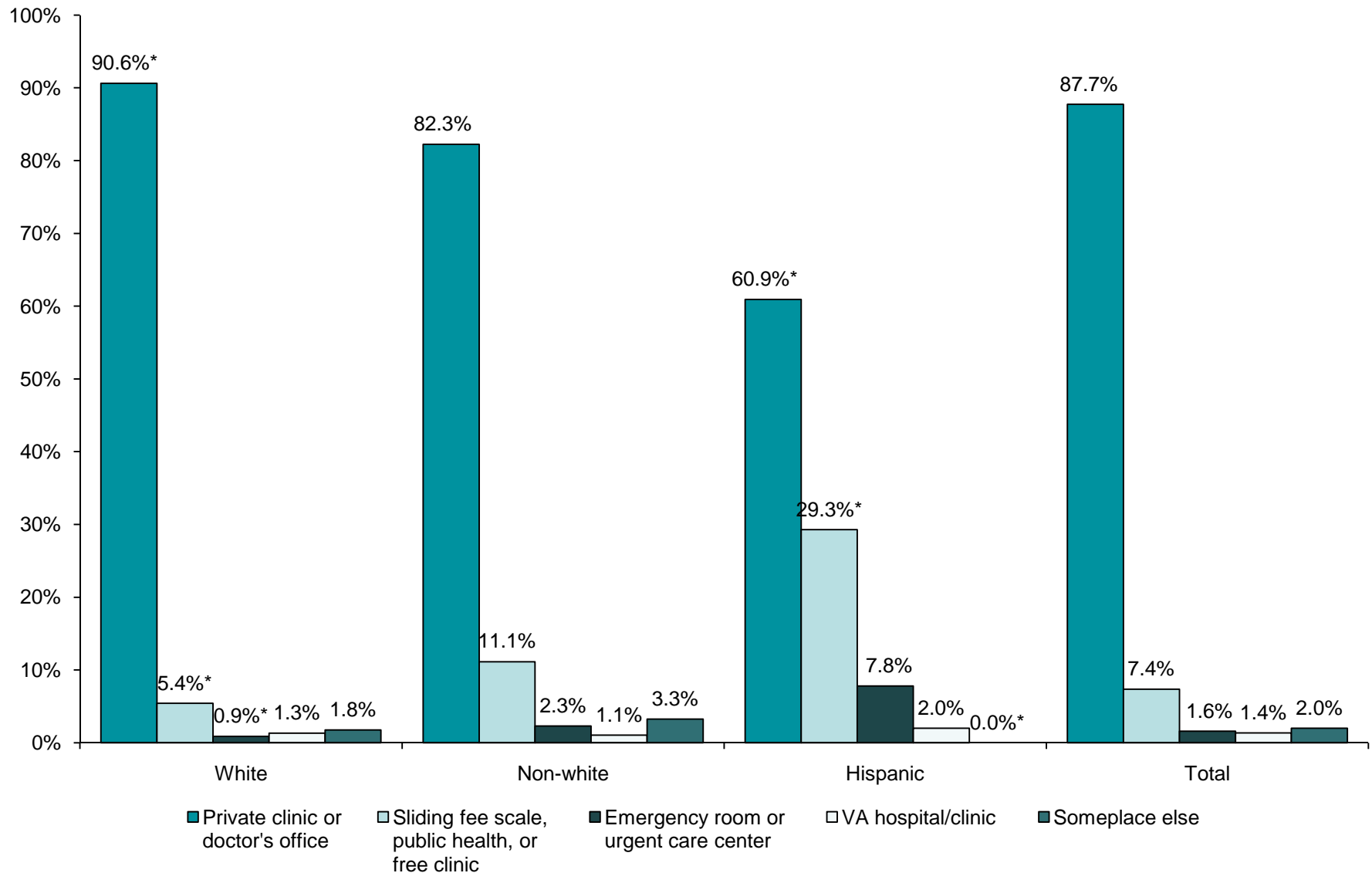


\*Indicates statistically significant difference between income groups (95% level).

Source: Minnesota Health Access Survey, 2009.

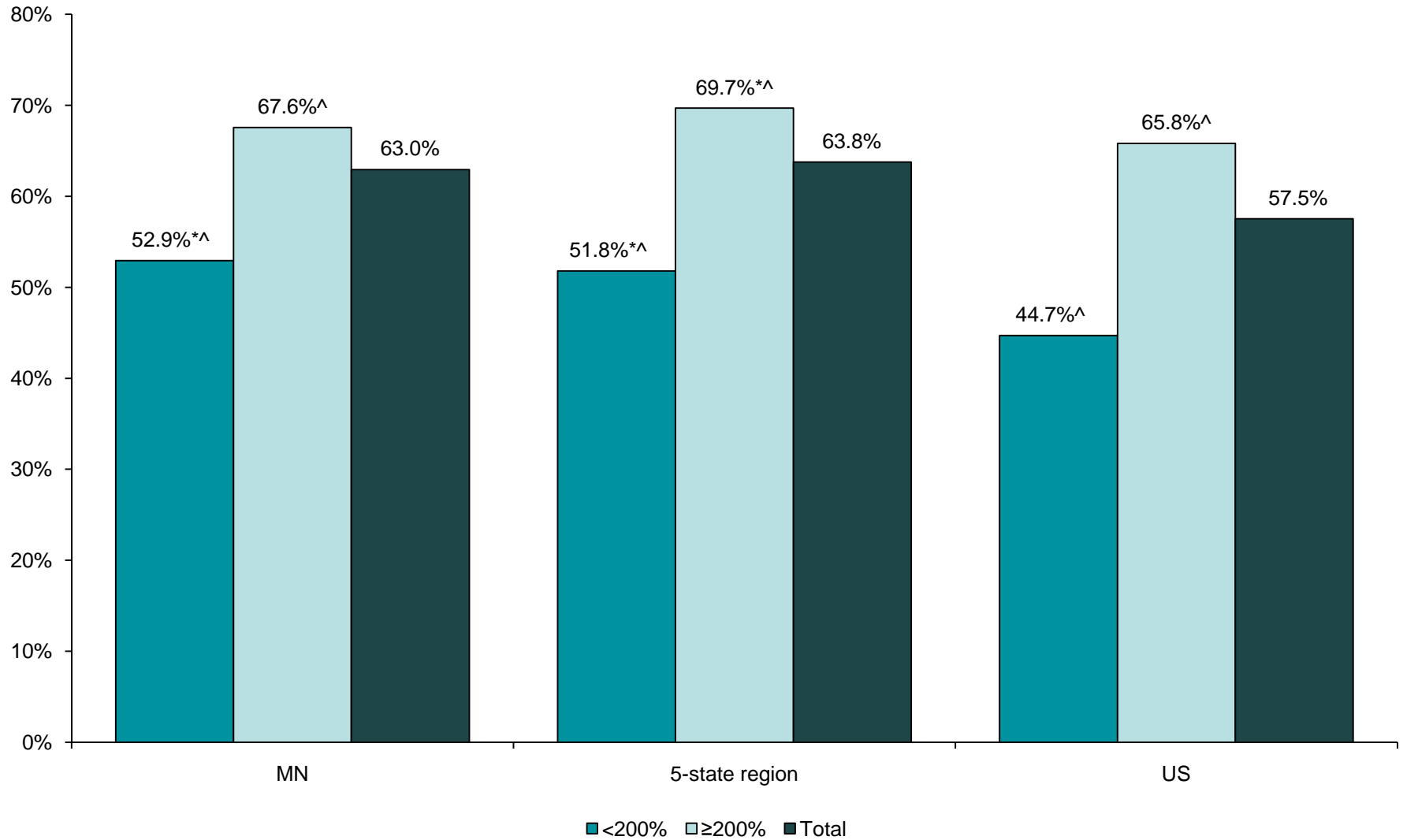
Note: Family income measured as a percentage of the federal poverty level (FPL).

**Exhibit 3.4**  
**Place of usual source of care for Minnesota children by race/ethnicity, 2009**



\*Indicates statistically significant difference from statewide average (95% level).  
 Source: Minnesota Health Access Survey, 2009

**Exhibit 3.5**  
**Percent of children who have a medical home by family income, 2007**

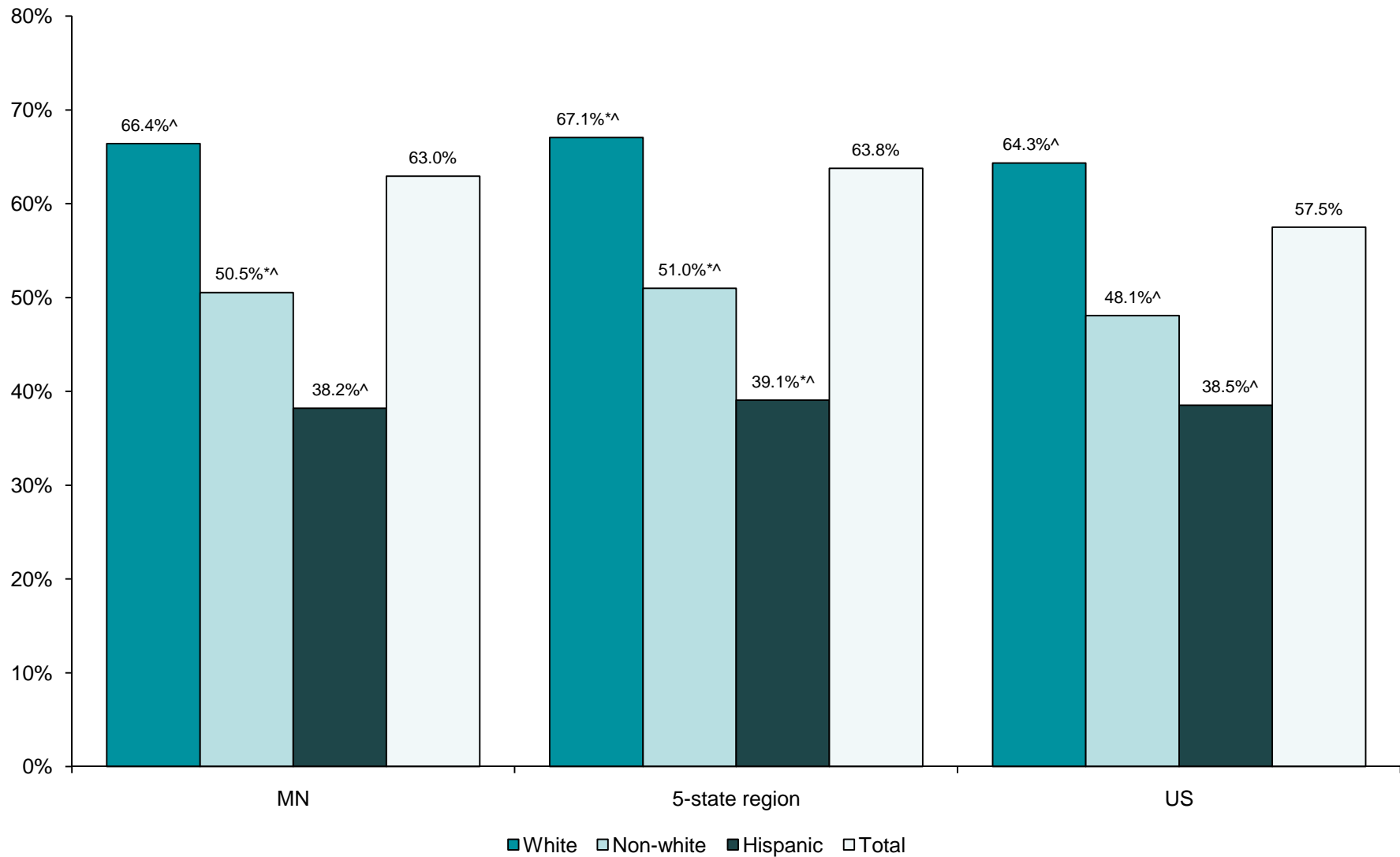


\*Indicates statistically significant difference from U.S.; ^indicates statistically significant difference between income groups (95% level).

Source: Child and Adolescent Health Measurement Initiative (CAHMI), 2007 National Survey of Children's Health Indicator Data Set, Data Resource Center for Child and Adolescent Health, [www.childhealthdata.org](http://www.childhealthdata.org). The medical home measure is intended to capture the American Academy of Pediatrics' definition of a medical home.

Note: Family income measured as a percentage of the federal poverty level (FPL).

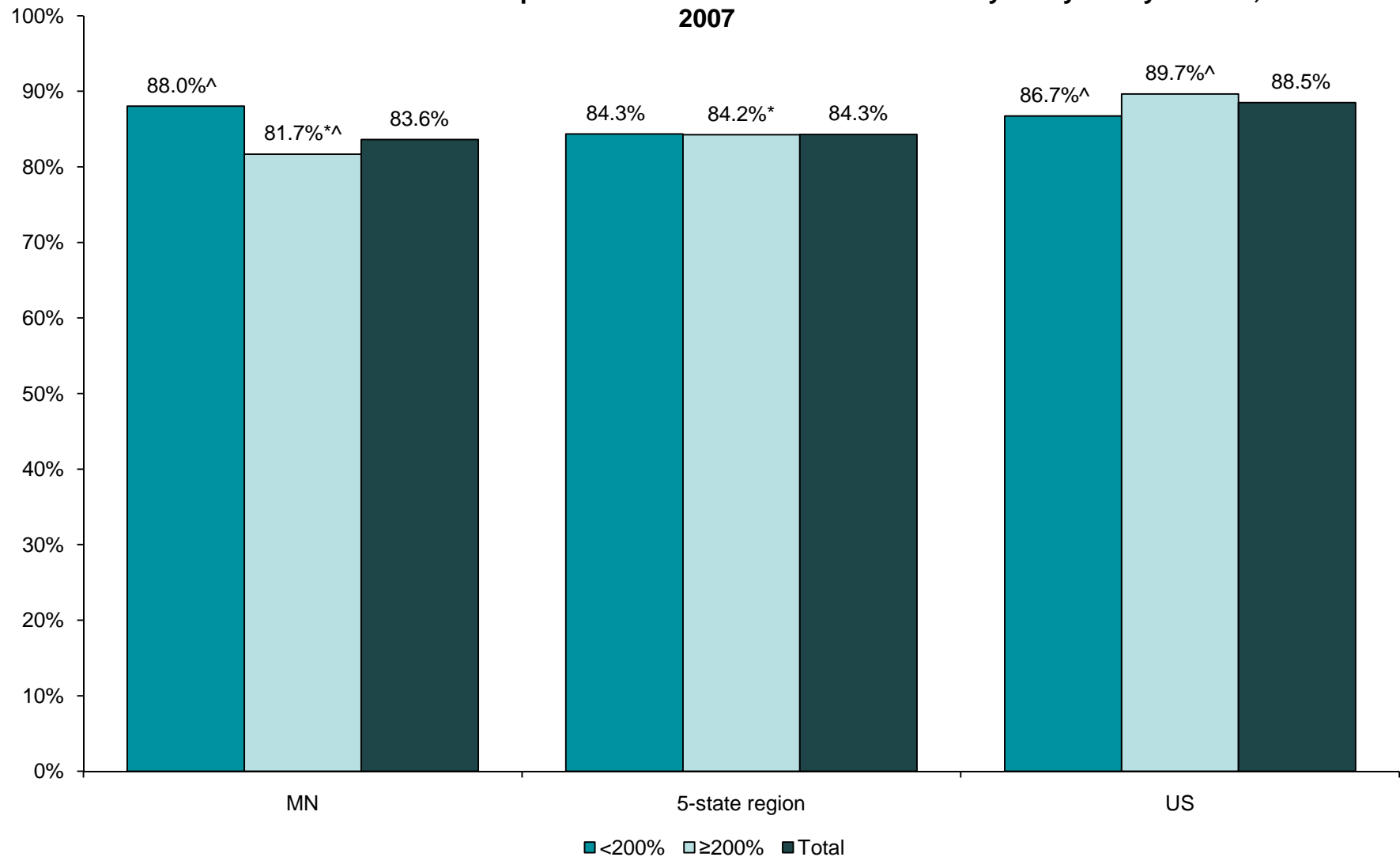
**Exhibit 3.6**  
**Percent of children who have a medical home by race/ethnicity, 2007**



\*Indicates statistically significant difference from U.S.; ^ indicates statistically significant differences from the population average (95% level).

Source: Child and Adolescent Health Measurement Initiative (CAHMI), 2007 National Survey of Children's Health Indicator Data Set, Data Resource Center for Child and Adolescent Health, [www.childhealthdata.org](http://www.childhealthdata.org). The medical home measure is intended to capture the American Academy of Pediatrics' definition of a medical home.

**Exhibit 3.7**  
**Percent of children who had a preventive medical visit within the last year by family income, 2007**

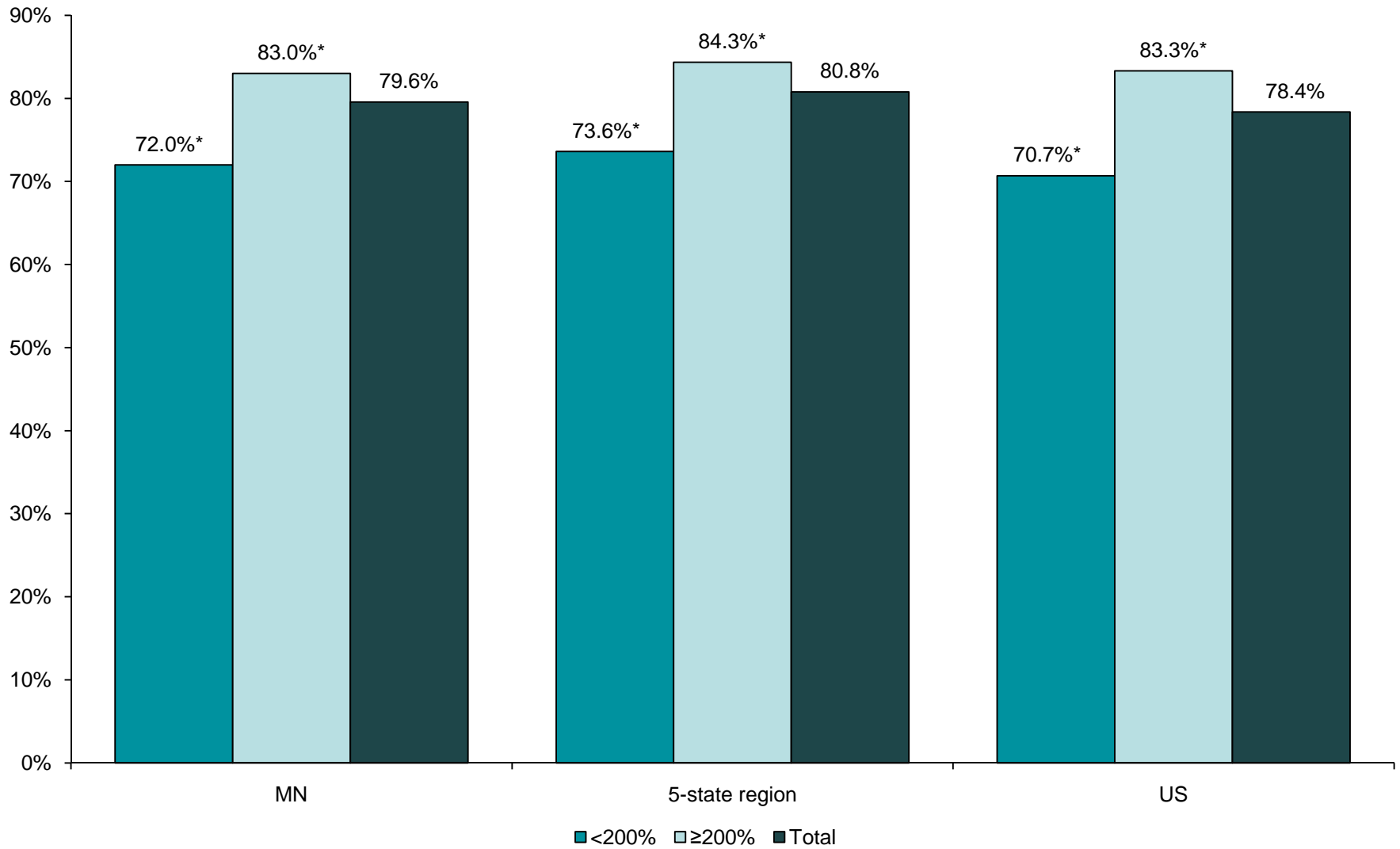


\*Indicates statistically significant difference from U.S.; ^ indicates statistically significant difference between income groups (95% level).

Source: Child and Adolescent Health Measurement Initiative (CAHMI), 2007 National Survey of Children's Health Indicator Data Set, Data Resource Center for Child and Adolescent Health, [www.childhealthdata.org](http://www.childhealthdata.org).

Note: Family income measured as a percentage of the federal poverty level (FPL).

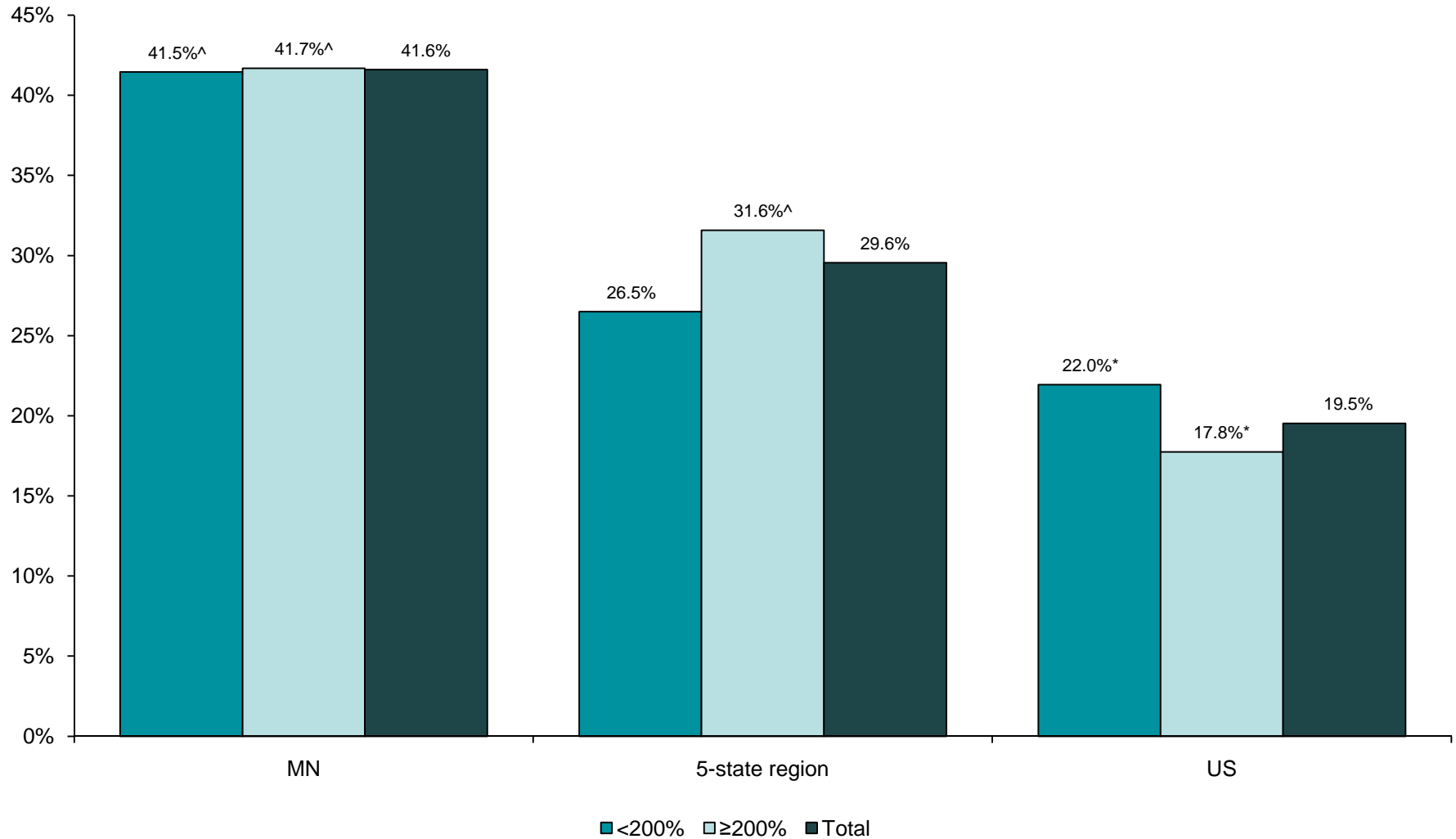
**Exhibit 3.8**  
**Percent of children who had a preventive dental visit within the last year by family income, 2007**



\*Indicates statistically significant difference between income groups (95% level).

Source: Child and Adolescent Health Measurement Initiative (CAHMI), 2007 National Survey of Children's Health Indicator Data Set, Data Resource Center for Child and Adolescent Health, [www.childhealthdata.org](http://www.childhealthdata.org). Note: Family income measured as a percentage of the federal poverty level (FPL).

**Exhibit 3.9**  
**Percent of children (age 10 months to 5 years) who received standardized screening for developmental/behavioral problems by family income, 2007**

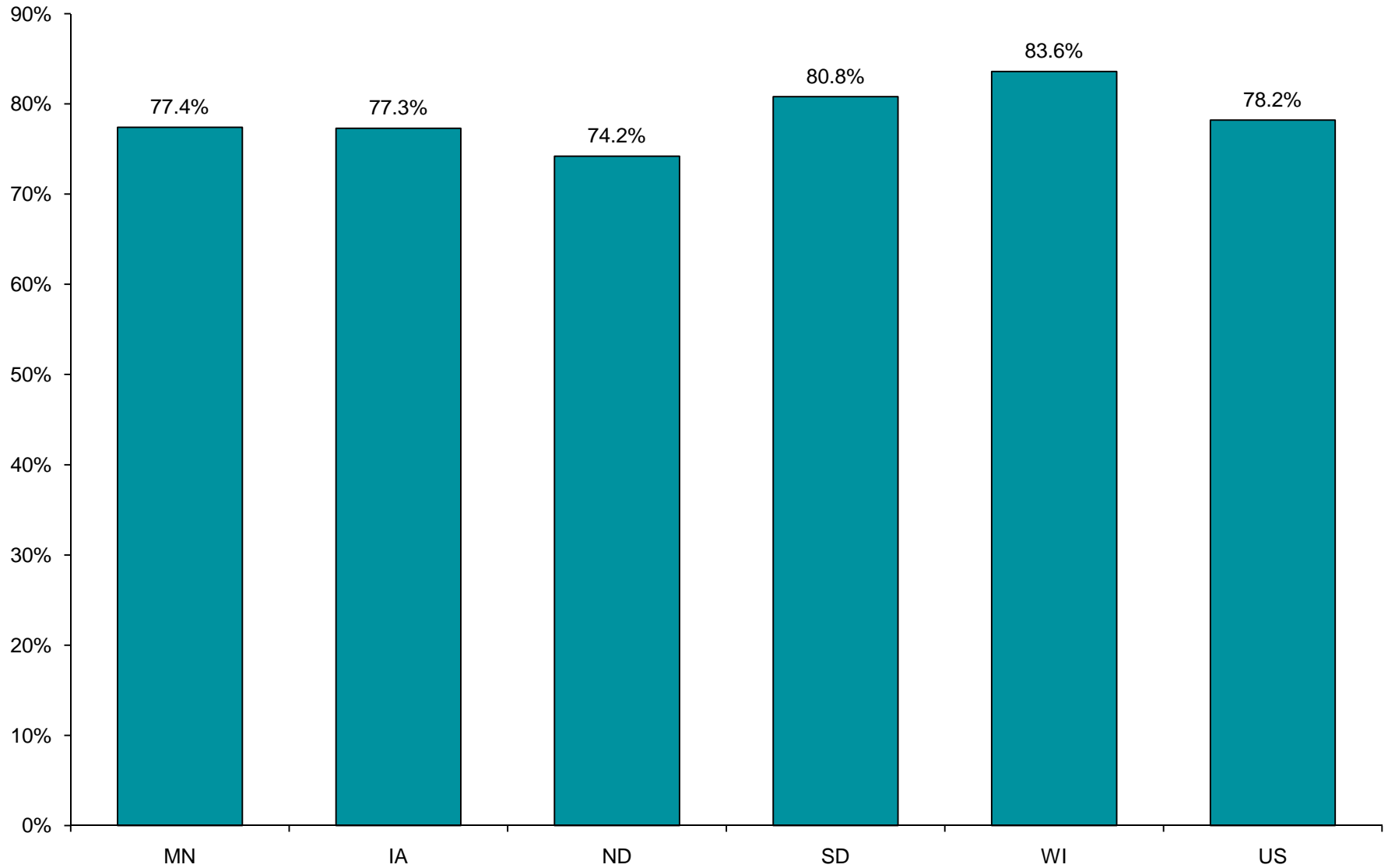


\*Indicates statistically significant difference from population; ^indicates statistically significant difference across income groups (95% level).

Source: Child and Adolescent Health Measurement Initiative (CAHMI), 2007 National Survey of Children's Health Indicator Data Set, Data Resource Center for Child and Adolescent Health, [www.childhealthdata.org](http://www.childhealthdata.org). This question was only asked of children who had had a health care visit in the past 12 months.

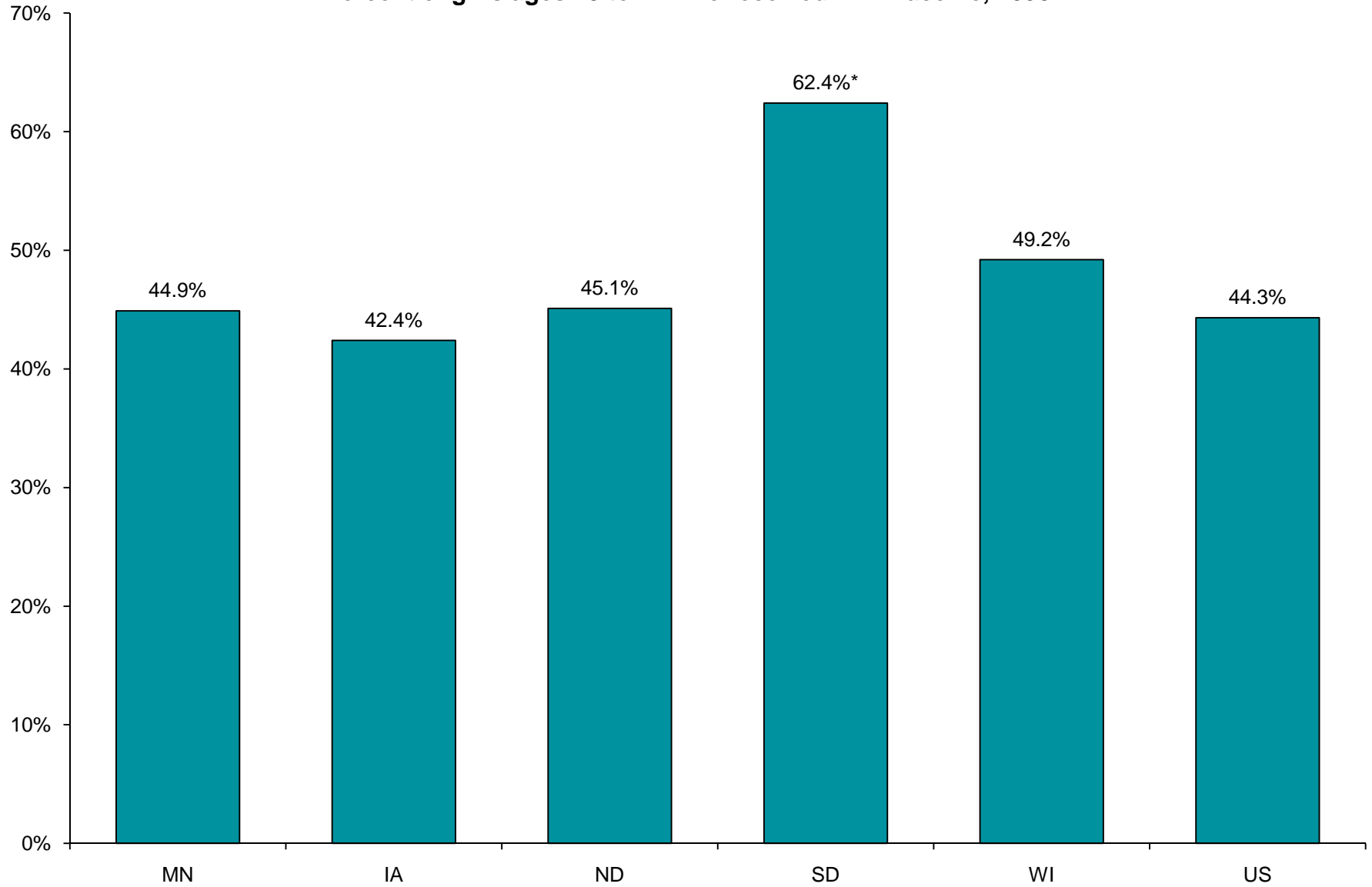
Note: Family income measured as a percentage of the federal poverty level (FPL).

**Exhibit 3.10**  
**Percent of children ages 19 to 35 months who received all recommended vaccines\*, 2008**



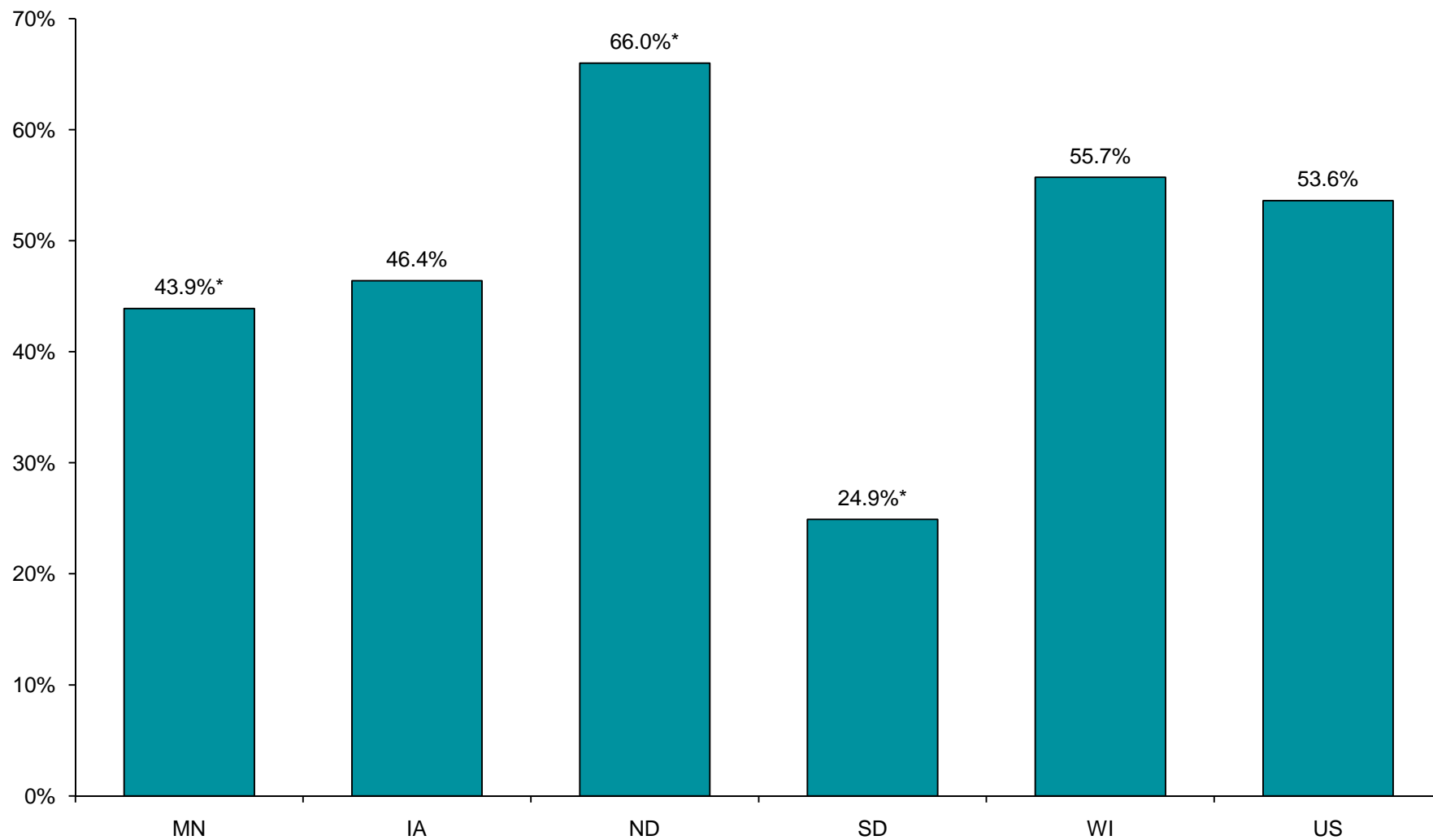
\* 4 or more doses of DTaP, 3 or more doses of poliovirus vaccine, 1 or more doses of any MMR, 3 or more doses of Hib, and 3 or more doses of HepB.  
Source: National Immunization Survey, 2008. Differences are not statistically significant at the 95% level.

**Exhibit 3.11**  
**Percent of girls ages 13 to 17 who received HPV vaccine, 2008**



\*Indicates statistically significant difference from U.S. (95% level).

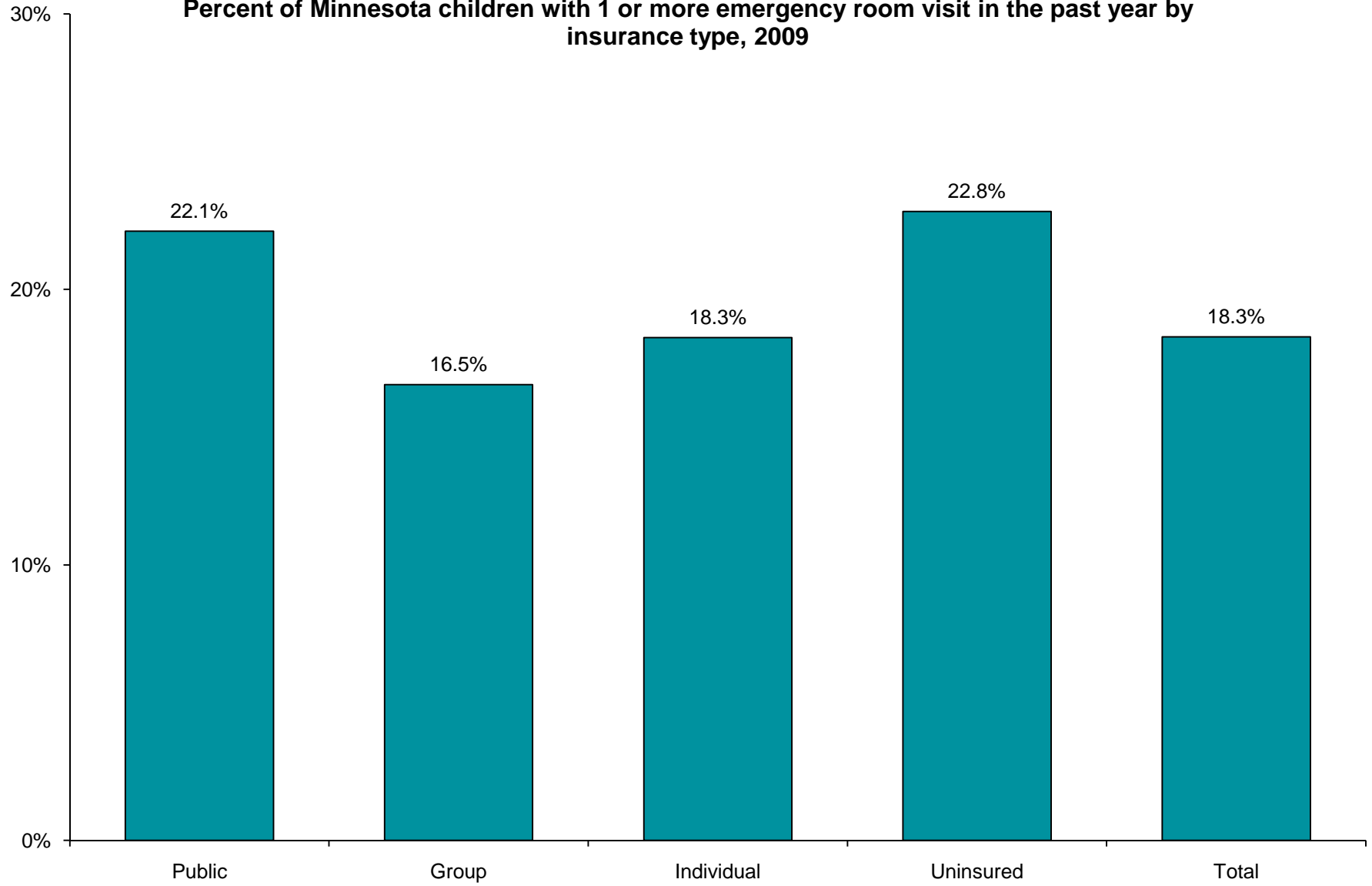
**Exhibit 3.12**  
**Percent of children ages 13 to 17 who received meningitis vaccine, 2009**



\*Indicates statistically significant difference from U.S. (95% level).  
Source: National Immunization Survey, 2009.

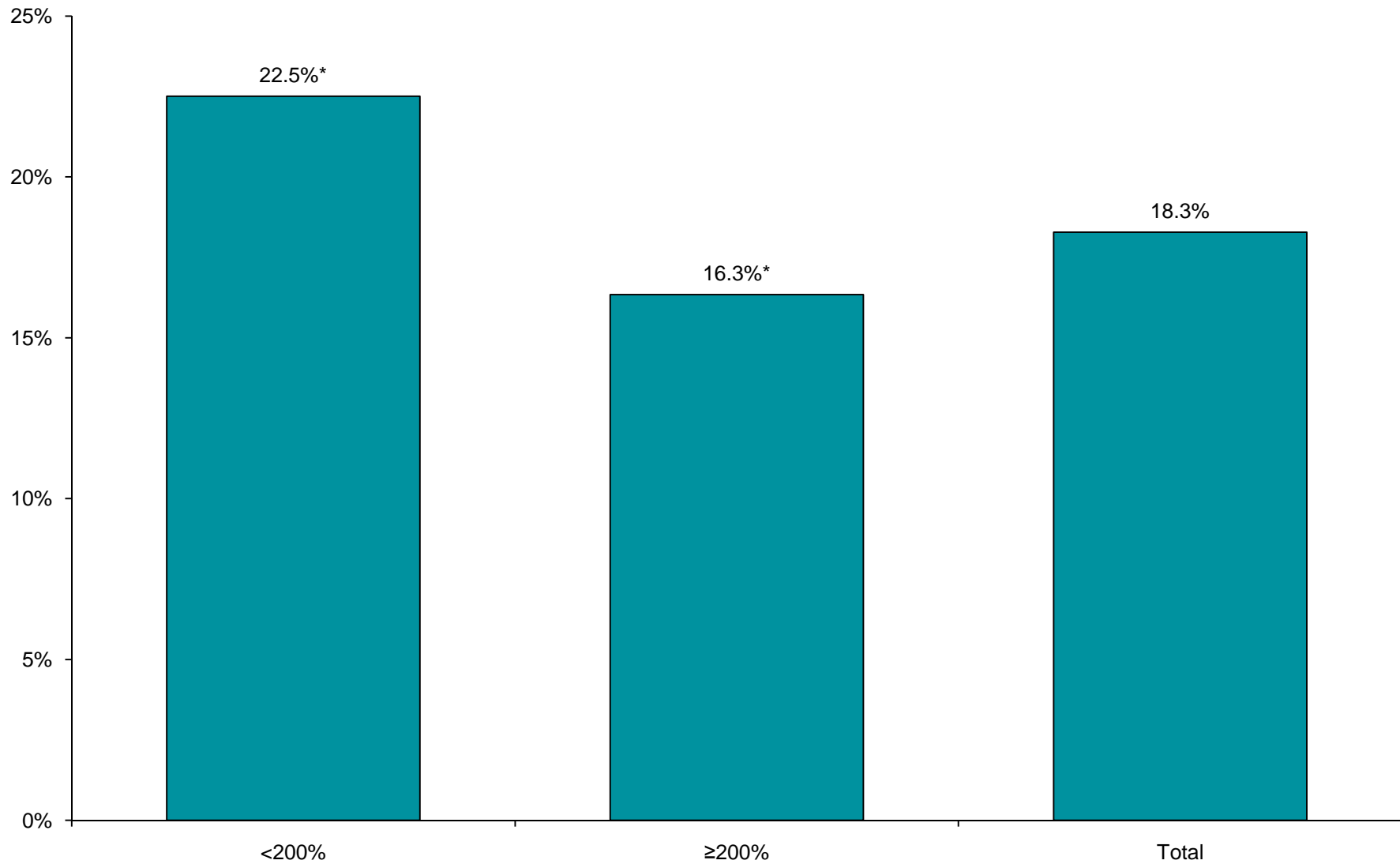
**Exhibit 3.13**

**Percent of Minnesota children with 1 or more emergency room visit in the past year by insurance type, 2009**



Differences are not statistically significant at the 95% level.  
Source: Minnesota Health Access Survey, 2009.

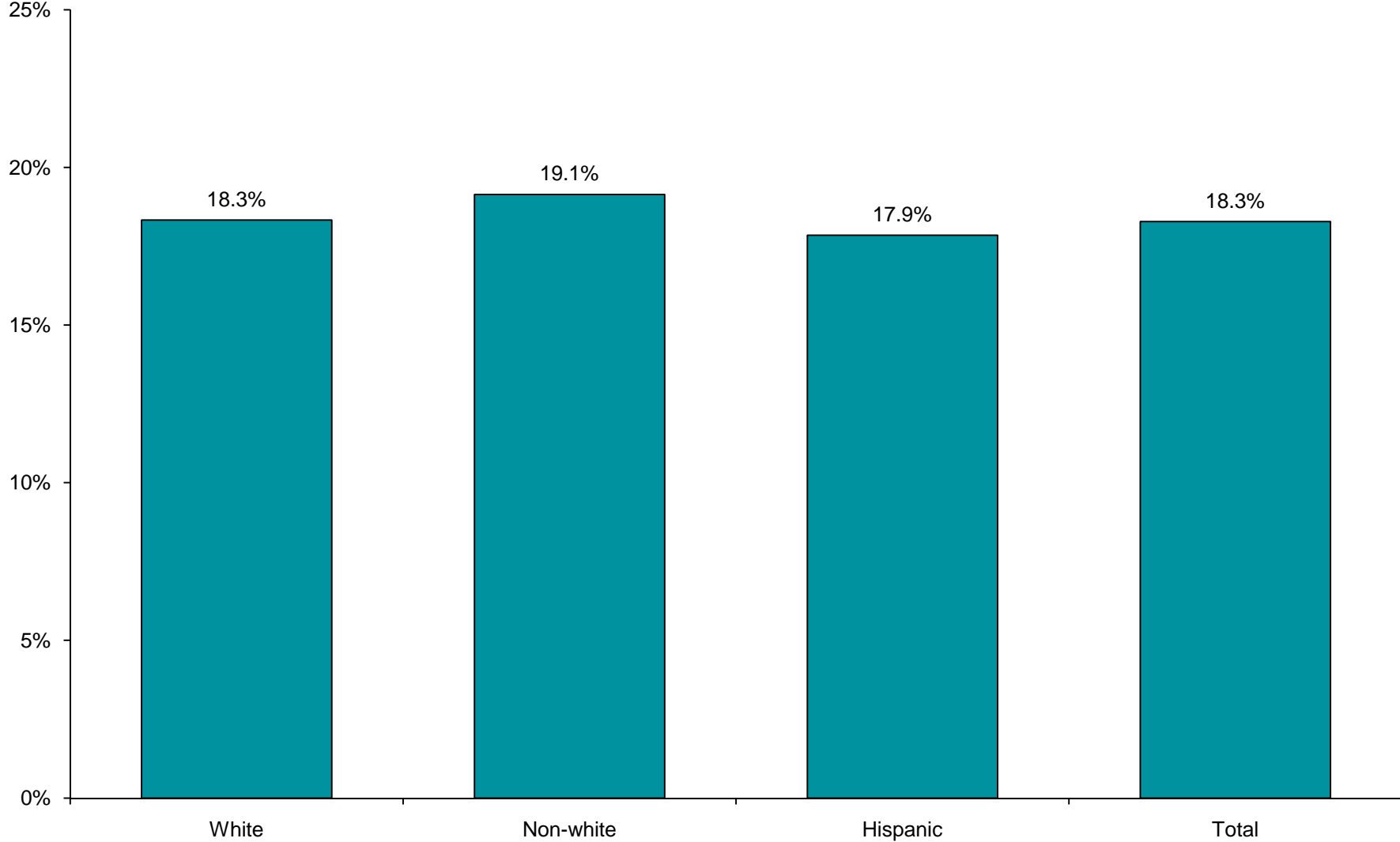
**Exhibit 3.14**  
**Percent of Minnesota children with 1 or more emergency room visit in the past year by family income, 2009**



\*Indicates statistically significant different between income groups (95% level).

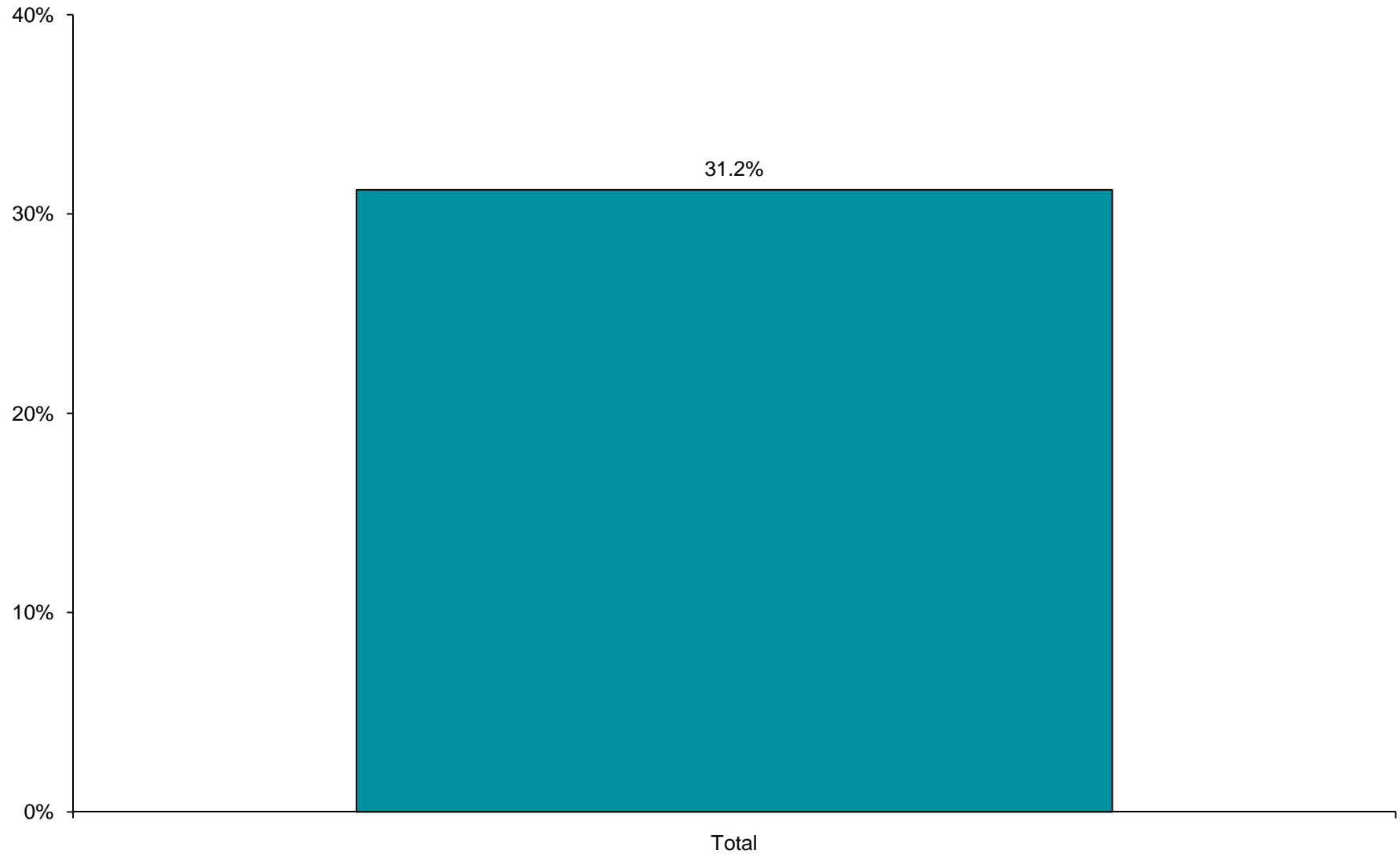
Source: Minnesota Health Access Survey, 2009. Note: family income measured as a percentage of the federal poverty level (FPL).

**Exhibit 3.15**  
**Percent of Minnesota children with 1 or more emergency room visit in the past year by race/ethnicity, 2009**



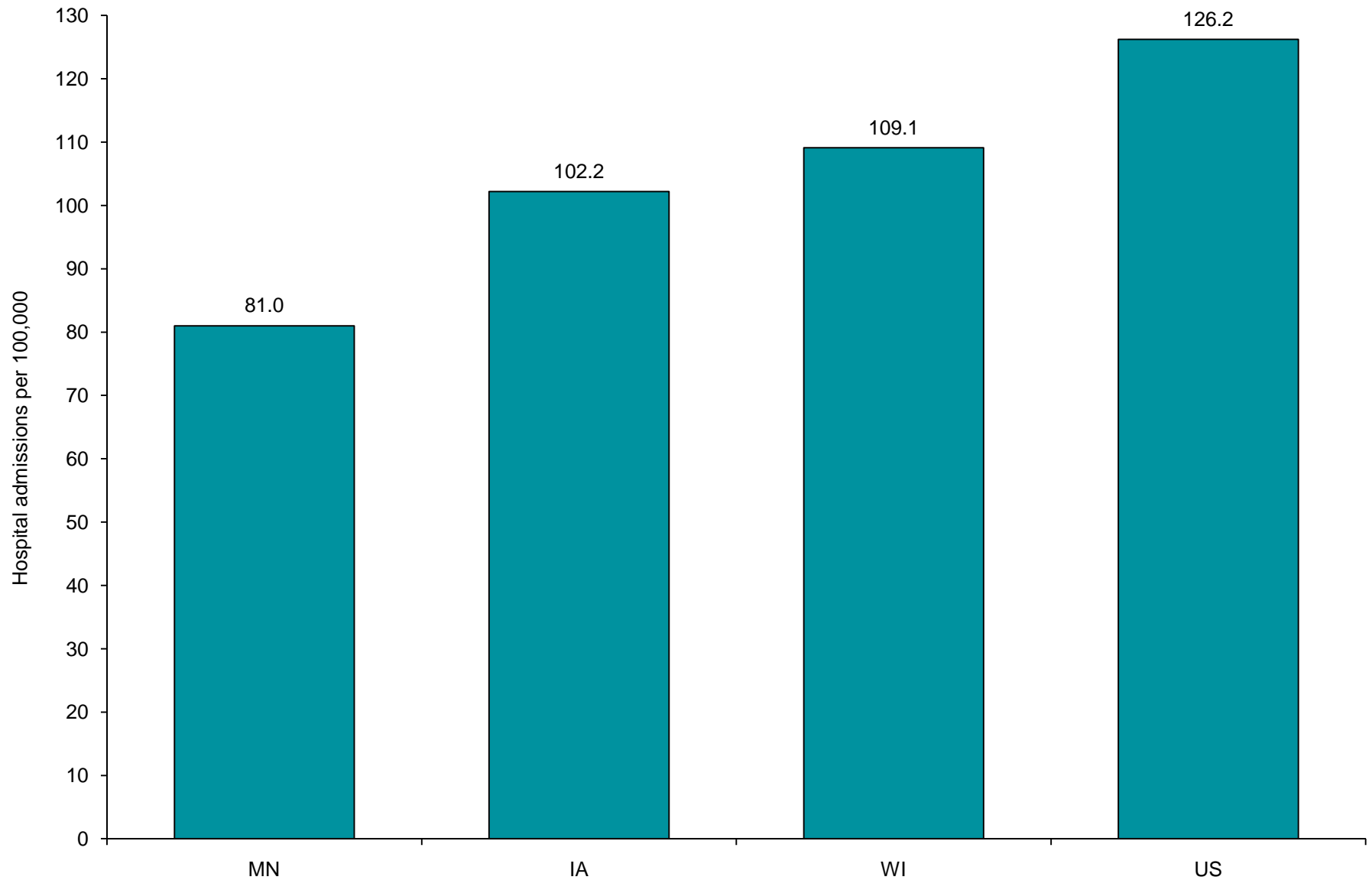
Differences are not statistically significant at the 95% level.  
Source: Minnesota Health Access Survey, 2009.

**Exhibit 3.16**  
**Percent of Minnesota children with ER visits who used ER for a minor condition, 2009**



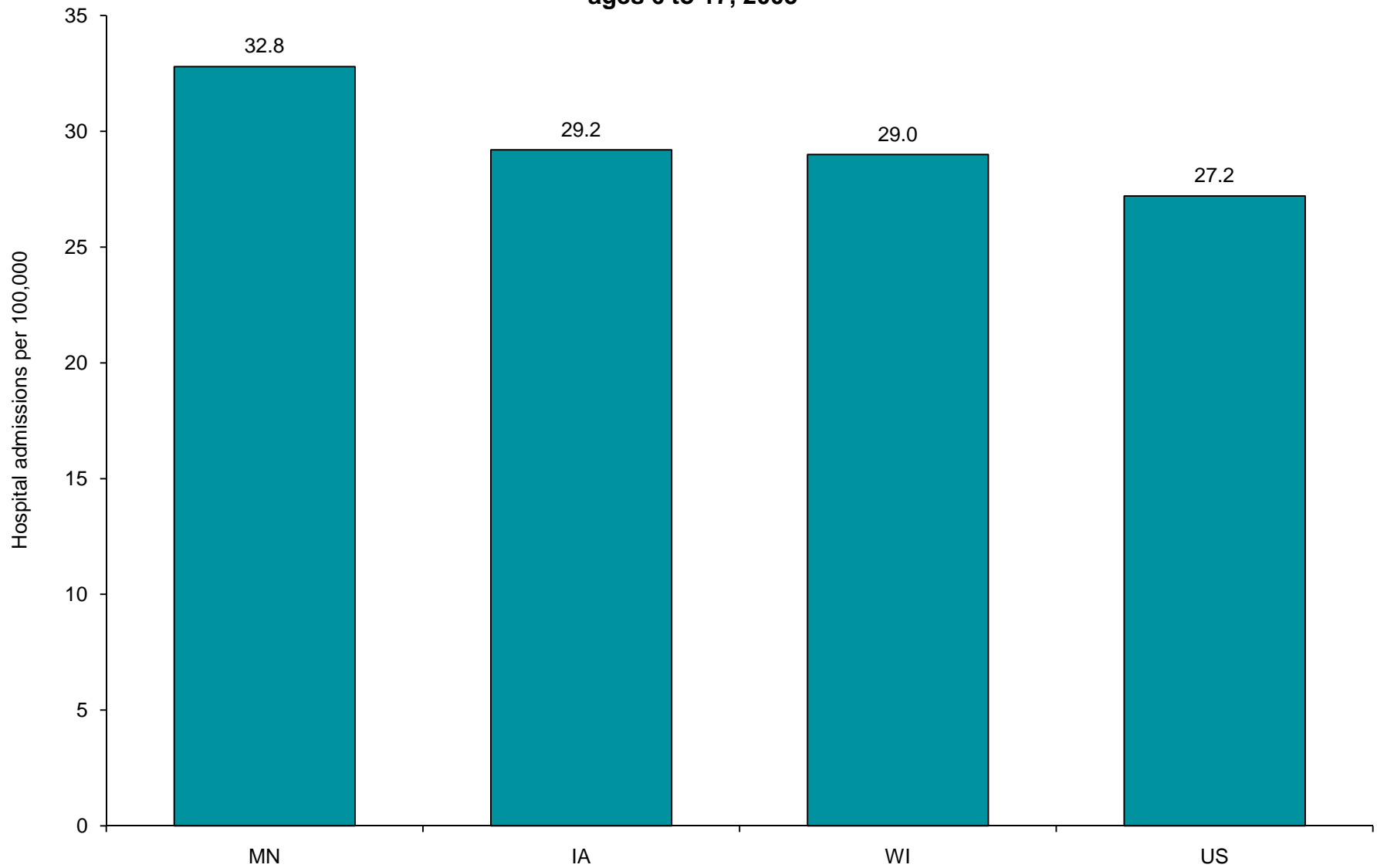
Source: Minnesota Health Access Survey, 2009. The question was asked as follows: "Were any of [child's] visits to the emergency room for something like a sore throat, earache, mild fever, etc. that [child] probably could have received care for at a clinic or urgent care center?"

**Exhibit 3.17**  
**Hospital admissions for pediatric asthma per 100,000 population, ages 2 to 17, 2005**



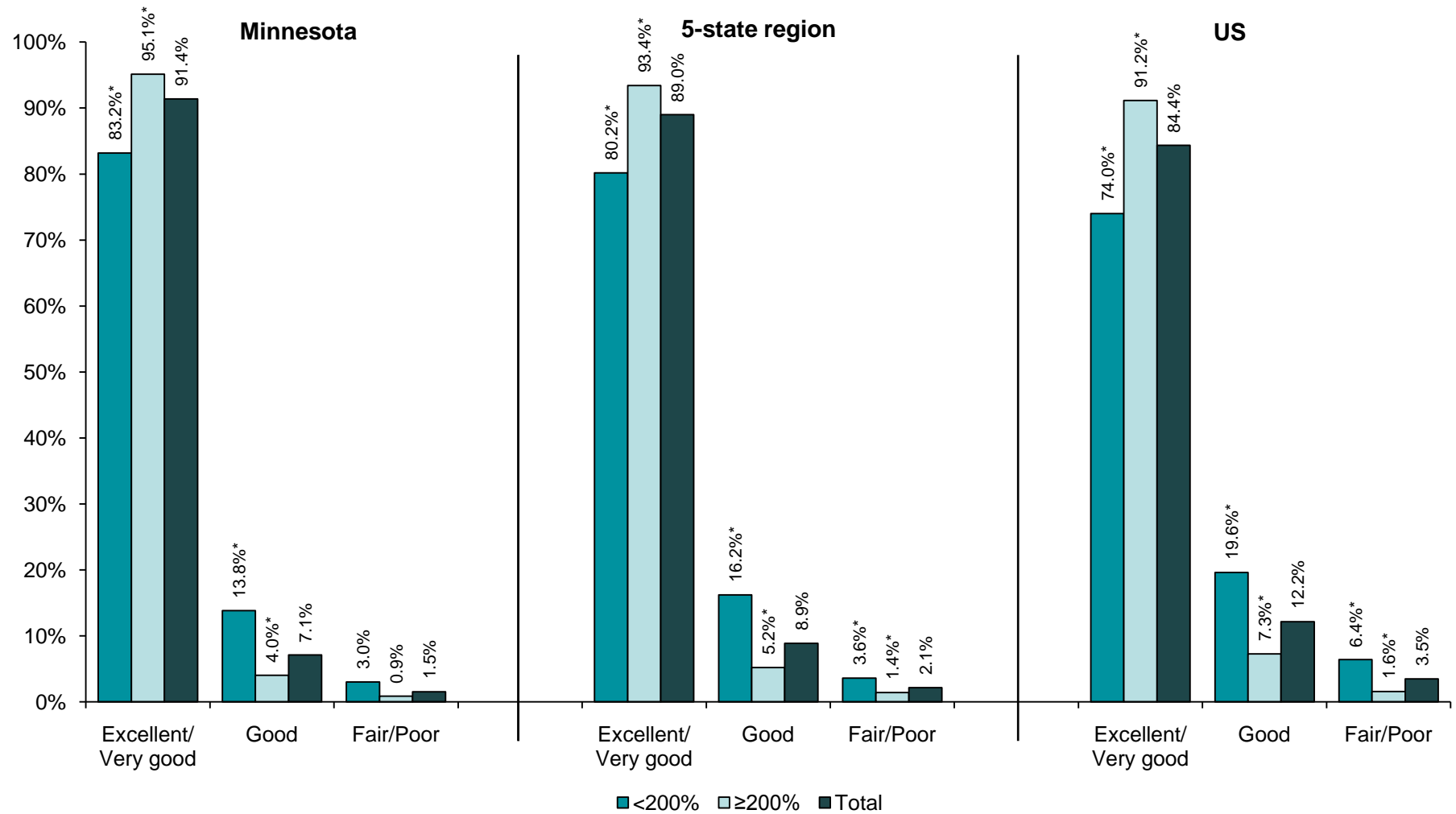
Source: Agency for Healthcare Research and Quality, *National Healthcare Quality Report, 2008*, "State Snapshots."

**Exhibit 3.18**  
**Hospital admissions for short-term complications of diabetes per 100,000 population, ages 6 to 17, 2005**



Source: Agency for Healthcare Research and Quality, *National Healthcare Quality Report, 2008*, "State Snapshots."

**Exhibit 4.1**  
**Health status of children by family income, 2007**

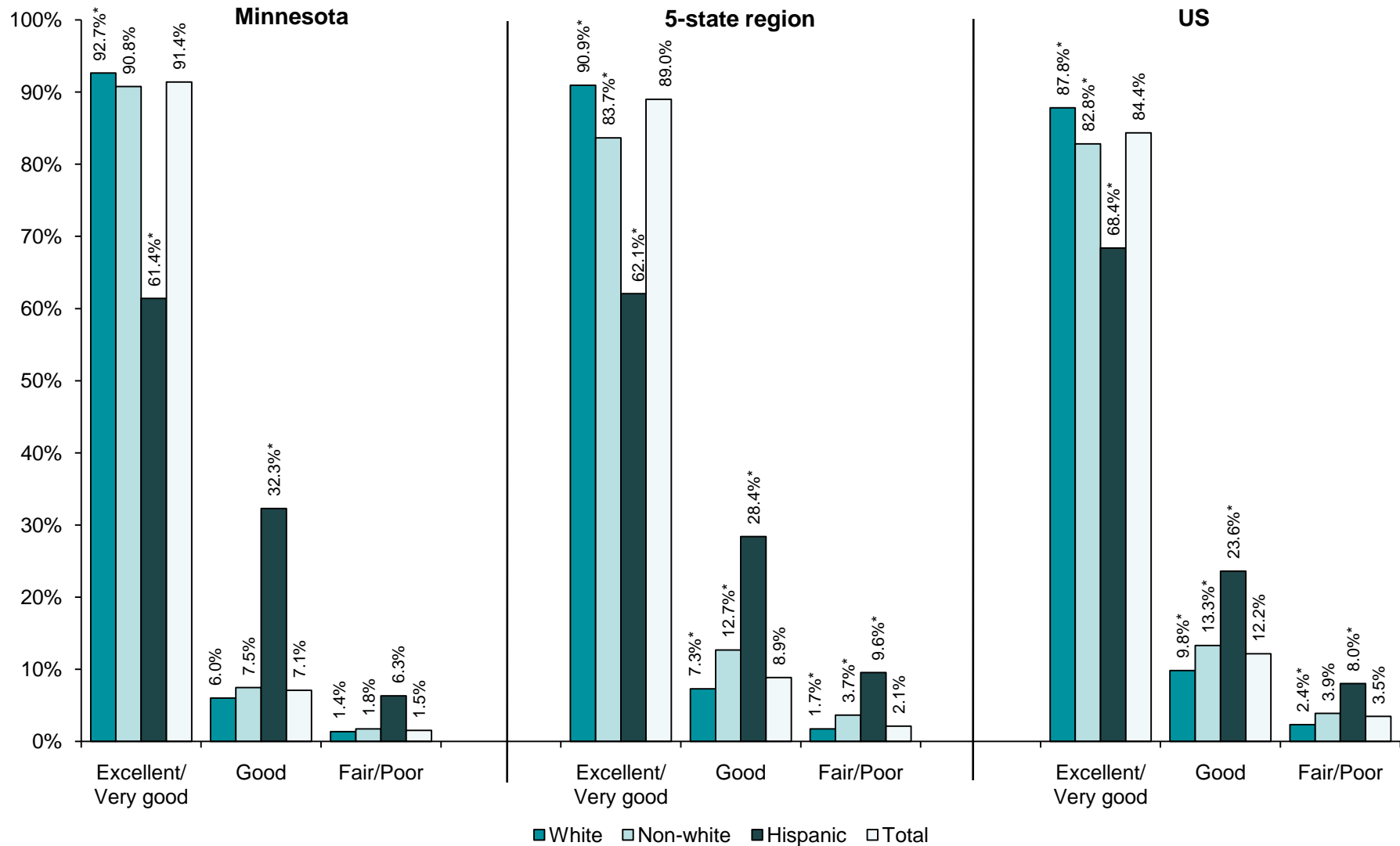


\*Indicates statistically significant difference across income groups (95% level).

Source: Child and Adolescent Health Measurement Initiative (CAHMI), 2007 National Survey of Children's Health Indicator Data Set, Data Resource Center for Child and Adolescent Health, [www.childhealthdata.org](http://www.childhealthdata.org).

Note: Family income measured as a percentage of the federal poverty level (FPL).

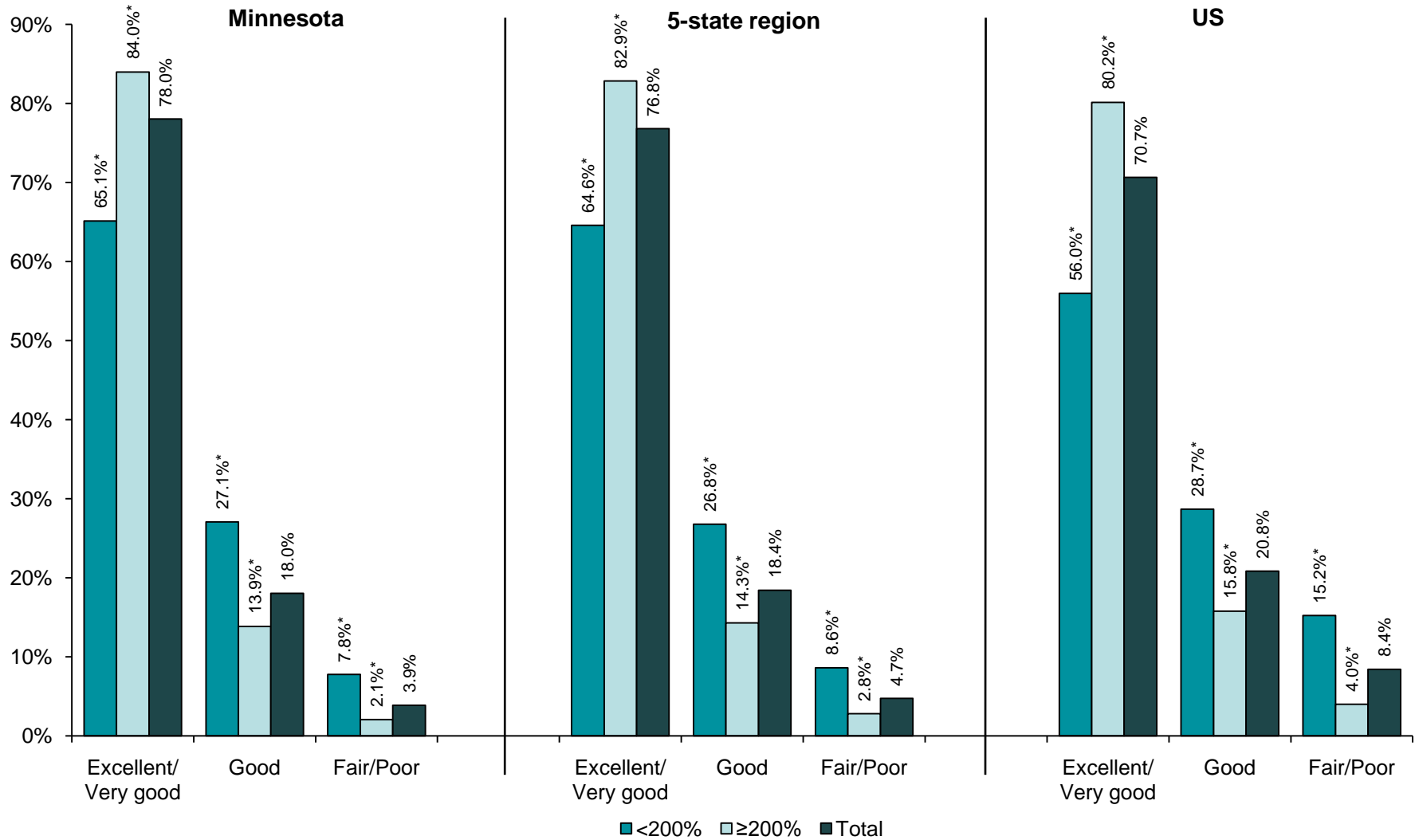
**Exhibit 4.2**  
**Health status of children by race/ethnicity, 2007**



\*Indicates statistically significant difference from population total (95% level).

Source: Child and Adolescent Health Measurement Initiative (CAHMI), 2007 National Survey of Children's Health Indicator Data Set, Data Resource Center for Child and Adolescent Health, [www.childhealthdata.org](http://www.childhealthdata.org).

**Exhibit 4.3**  
**Dental health status of children by family income, 2007**

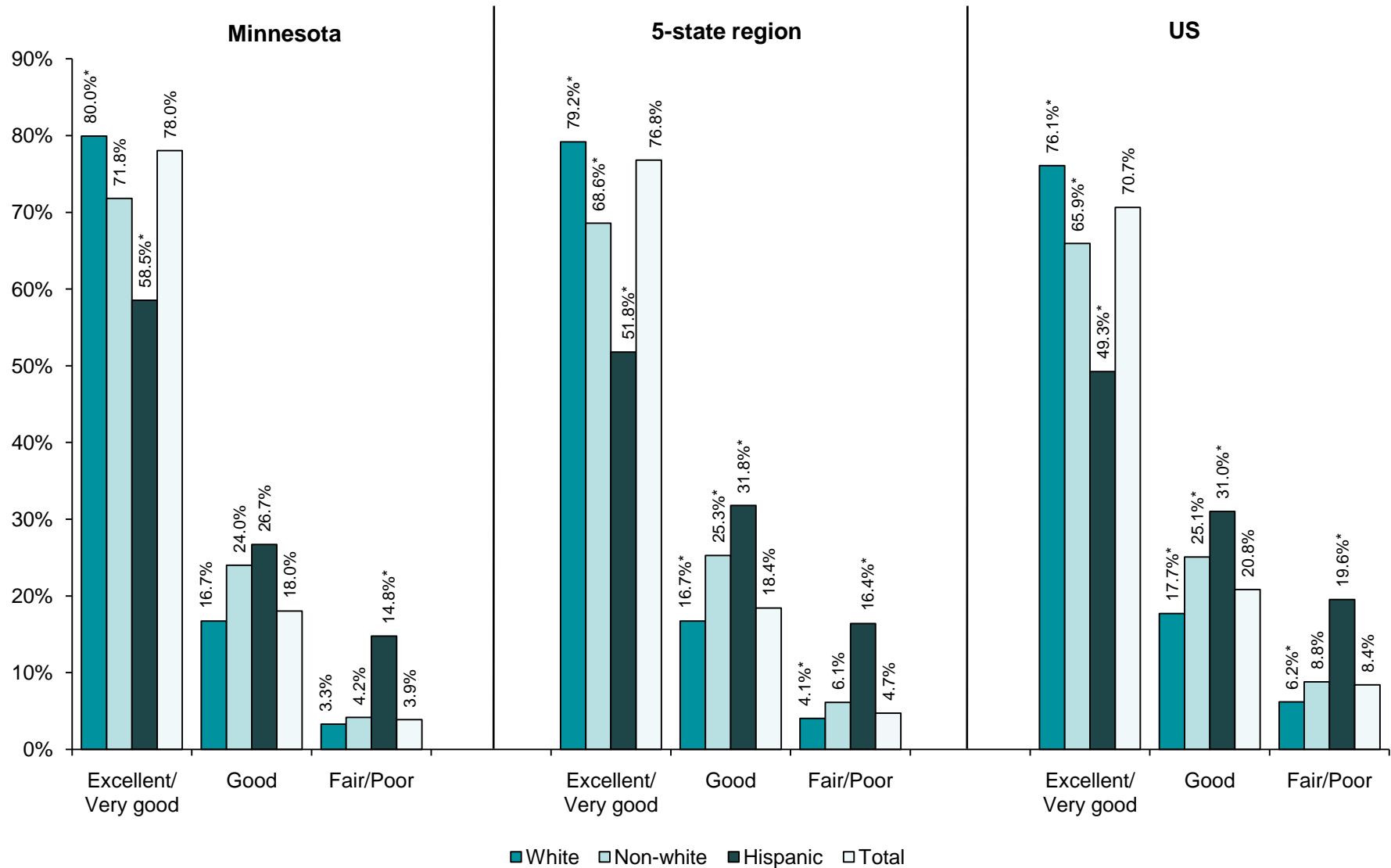


\*Indicates statistically significant difference across income groups (95% level).

Source: Child and Adolescent Health Measurement Initiative (CAHMI), 2007 National Survey of Children's Health Indicator Data Set, Data Resource Center for Child and Adolescent Health, [www.childhealthdata.org](http://www.childhealthdata.org).

Note: Family income measured as a percentage of the federal poverty level (FPL).

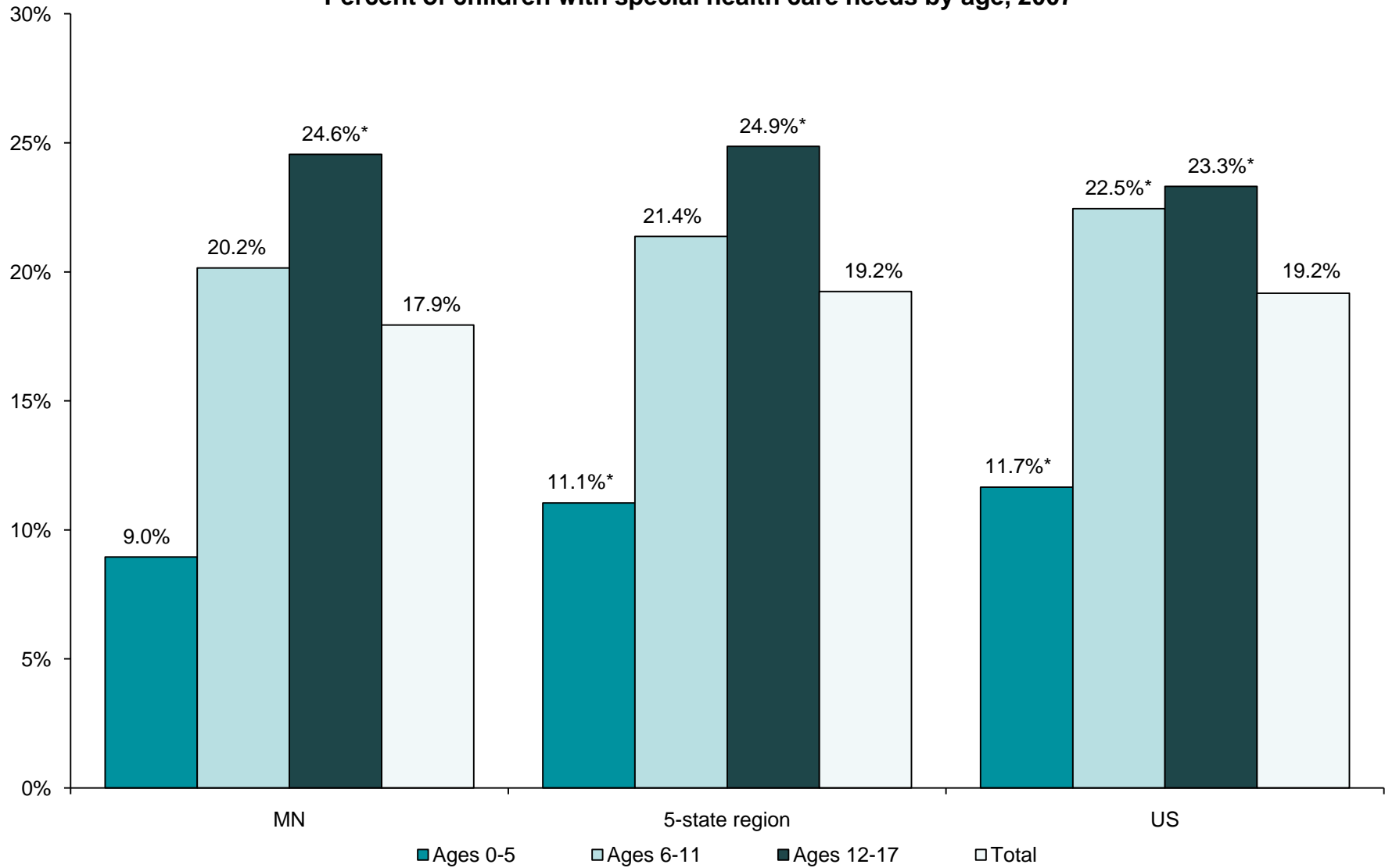
**Exhibit 4.4**  
**Dental health status of children by race/ethnicity, 2007**



\*Indicates statistically significant difference from population total (95% level).

Source: Child and Adolescent Health Measurement Initiative (CAHMI), 2007 National Survey of Children's Health Indicator Data Set, Data Resource Center for Child and Adolescent Health, [www.childhealthdata.org](http://www.childhealthdata.org).

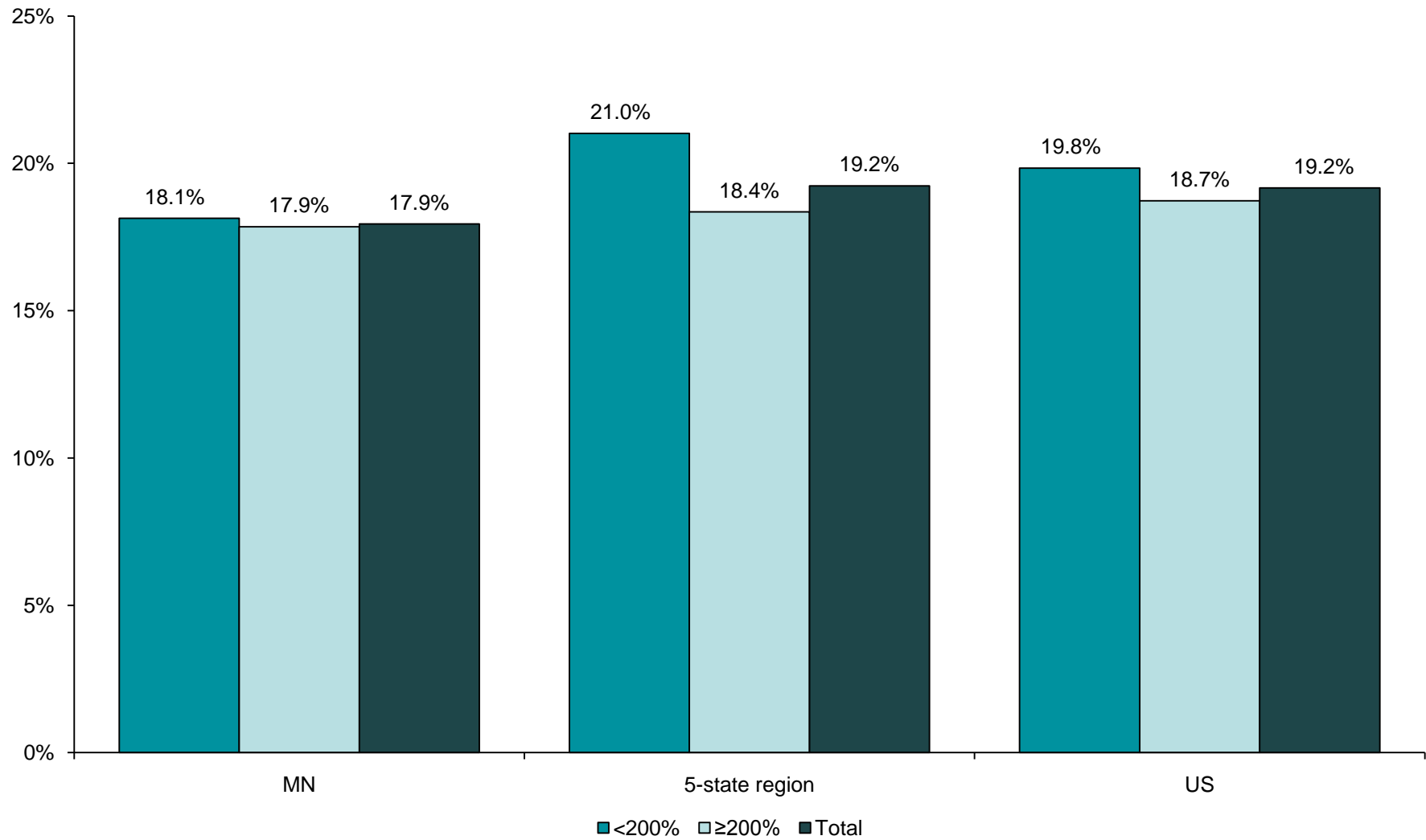
**Exhibit 4.5**  
**Percent of children with special health care needs by age, 2007**



\*Indicates statistically significant difference from population total (95% level).

Source: Child and Adolescent Health Measurement Initiative (CAHMI), 2007 National Survey of Children's Health Indicator Data Set, Data Resource Center for Child and Adolescent Health, [www.childhealthdata.org](http://www.childhealthdata.org).

**Exhibit 4.6**  
**Percent of children with special health care needs by family income, 2007**

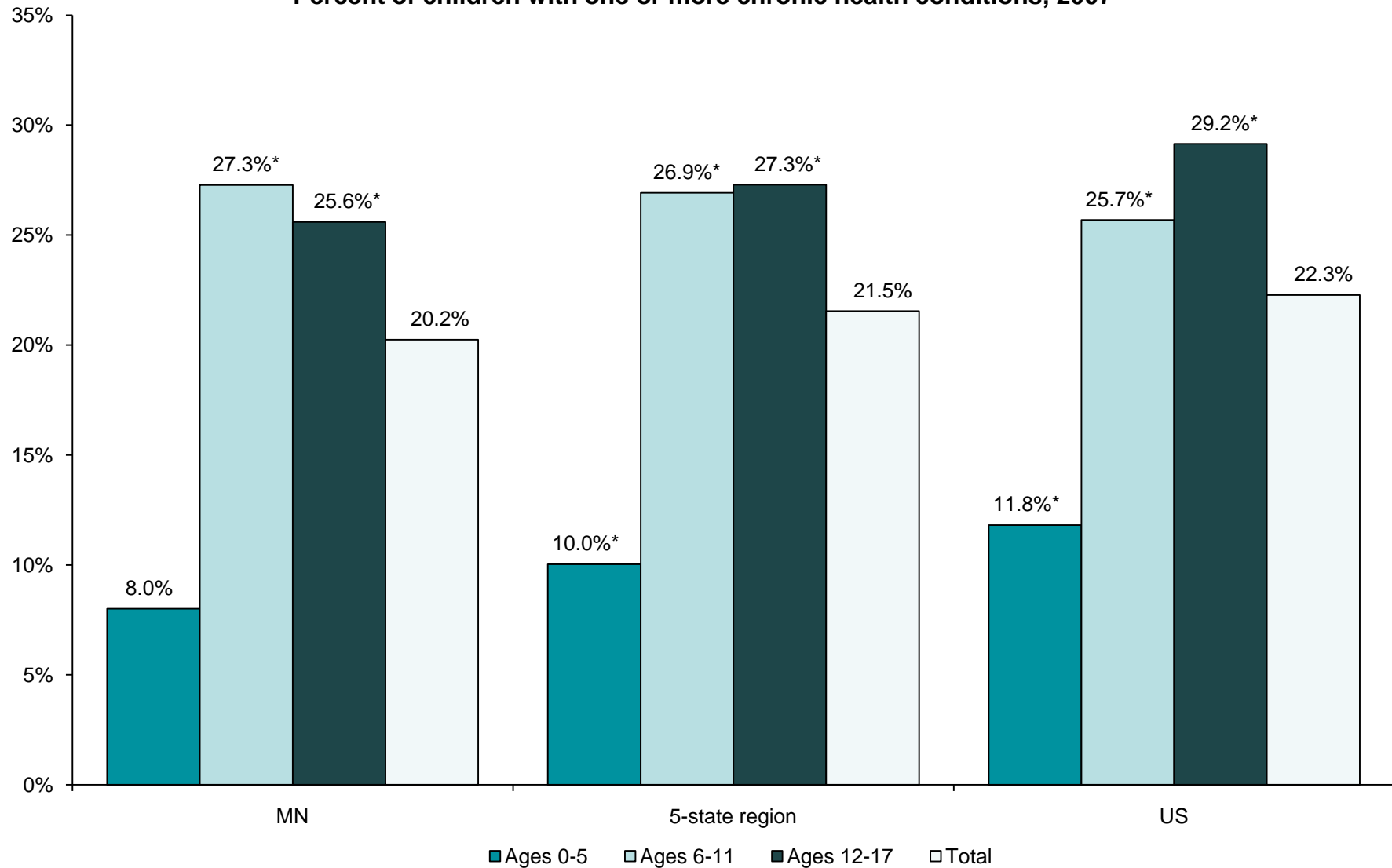


Differences across income groups are not statistically significant at the 95% level.

Source: Child and Adolescent Health Measurement Initiative (CAHMI), 2007 National Survey of Children's Health Indicator Data Set, Data Resource Center for Child and Adolescent Health, [www.childhealthdata.org](http://www.childhealthdata.org).

Note: Family income measured as a percentage of the federal poverty level (FPL).

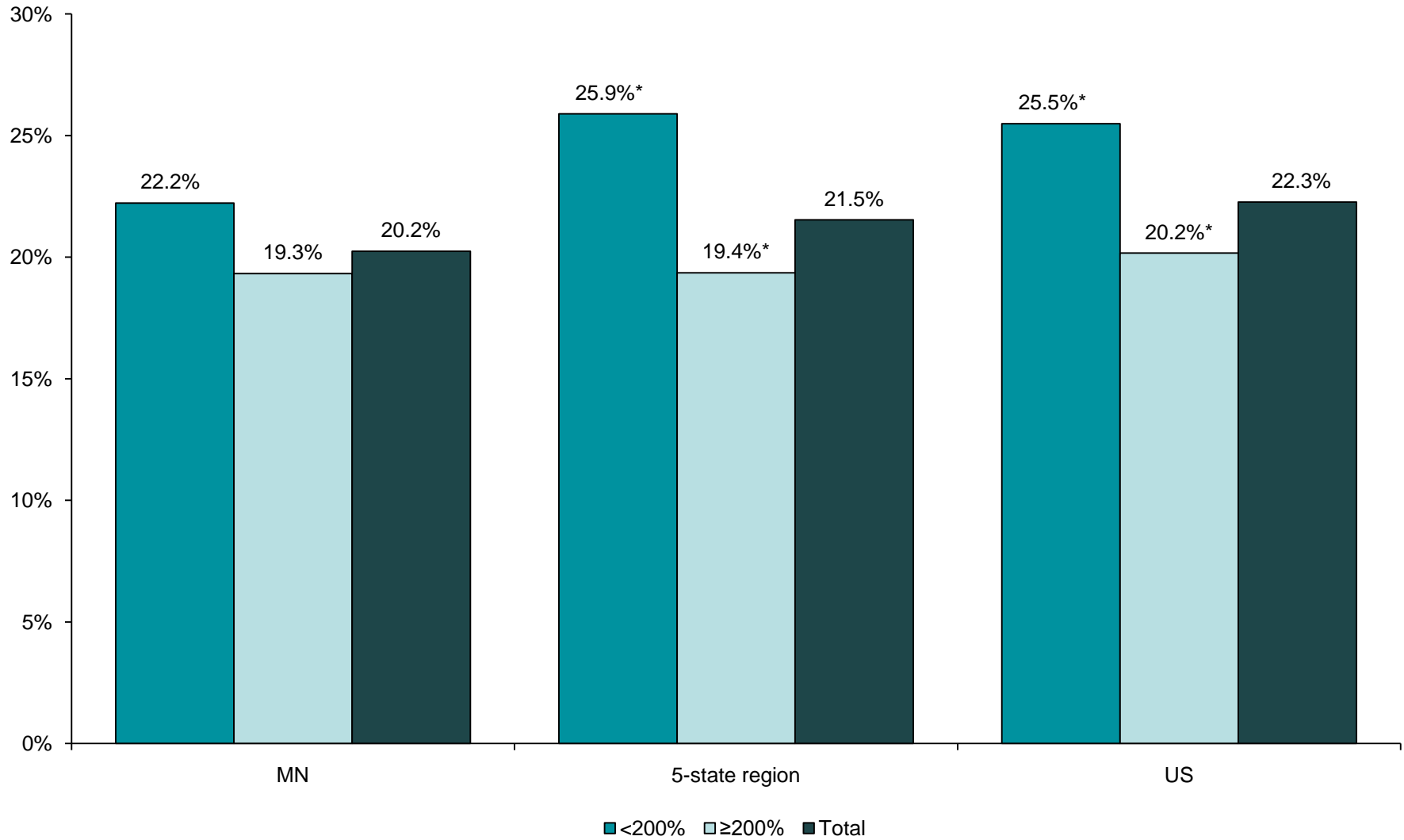
**Exhibit 4.7**  
**Percent of children with one or more chronic health conditions, 2007**



\*Indicates statistically significant difference from population total (95% level).

Source: Child and Adolescent Health Measurement Initiative (CAHMI), 2007 National Survey of Children's Health Indicator Data Set, Data Resource Center for Child and Adolescent Health, [www.childhealthdata.org](http://www.childhealthdata.org).

**Exhibit 4.8**  
**Percent of children with one or more chronic health conditions by family income, 2007**

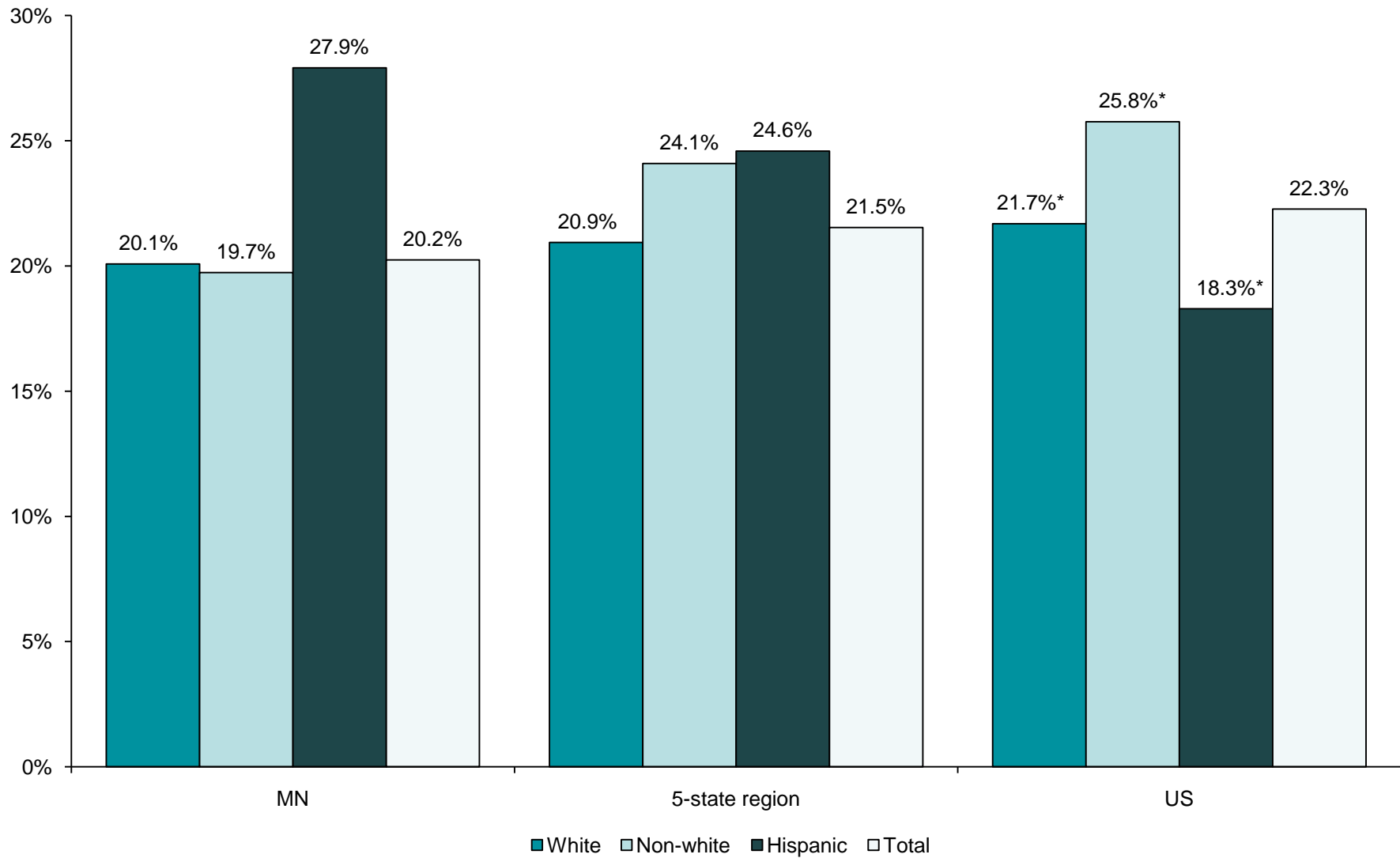


\*Indicates statistically significant difference between income groups (95% level).

Source: Child and Adolescent Health Measurement Initiative (CAHMI), 2007 National Survey of Children's Health Indicator Data Set, Data Resource Center for Child and Adolescent Health, [www.childhealthdata.org](http://www.childhealthdata.org).

Note: Family income measured as a percentage of the federal poverty level (FPL).

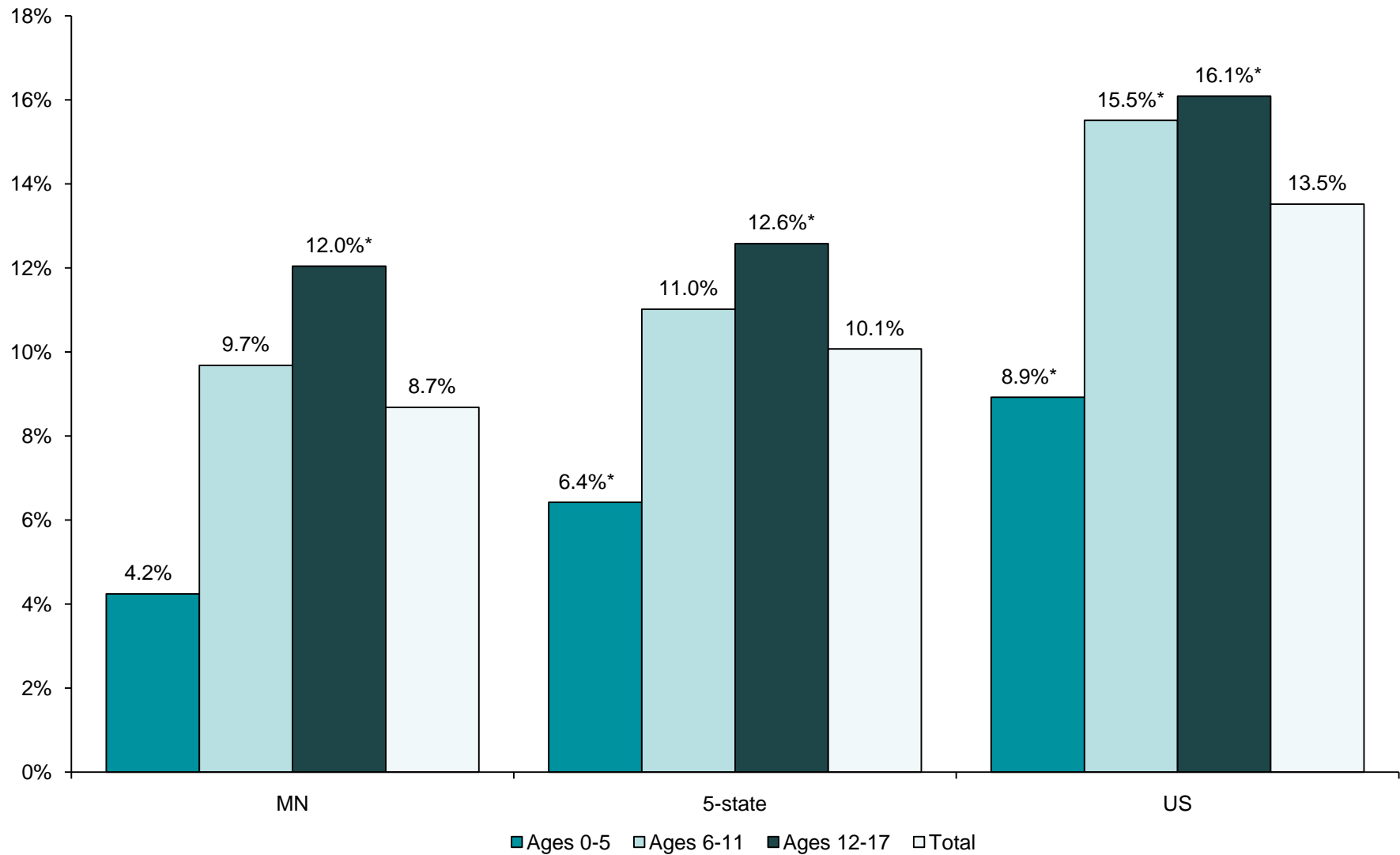
**Exhibit 4.9**  
**Percent of children with one or more chronic health conditions by race/ethnicity, 2007**



\*Indicates statistically significant difference from population total (95% level).

Source: Child and Adolescent Health Measurement Initiative (CAHMI), 2007 National Survey of Children's Health Indicator Data Set, Data Resource Center for Child and Adolescent Health, [www.childhealthdata.org](http://www.childhealthdata.org).

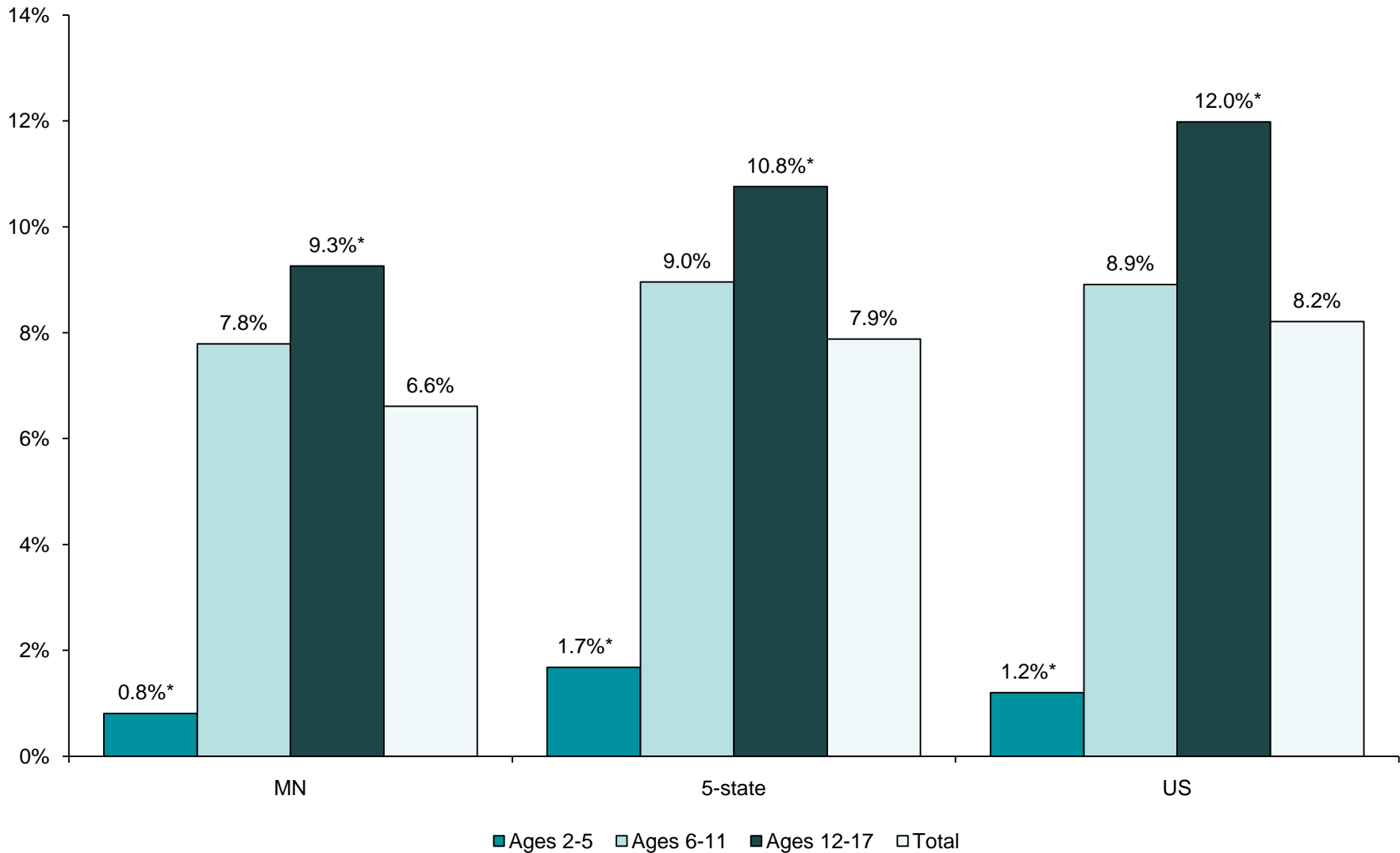
**Exhibit 4.10**  
**Percent of children ever diagnosed with asthma by age, 2007**



\*Indicates statistically significant difference from population total (95% level).

Source: Child and Adolescent Health Measurement Initiative (CAHMI), 2007 National Survey of Children's Health Indicator Data Set, Data Resource Center for Child and Adolescent Health, [www.childhealthdata.org](http://www.childhealthdata.org).

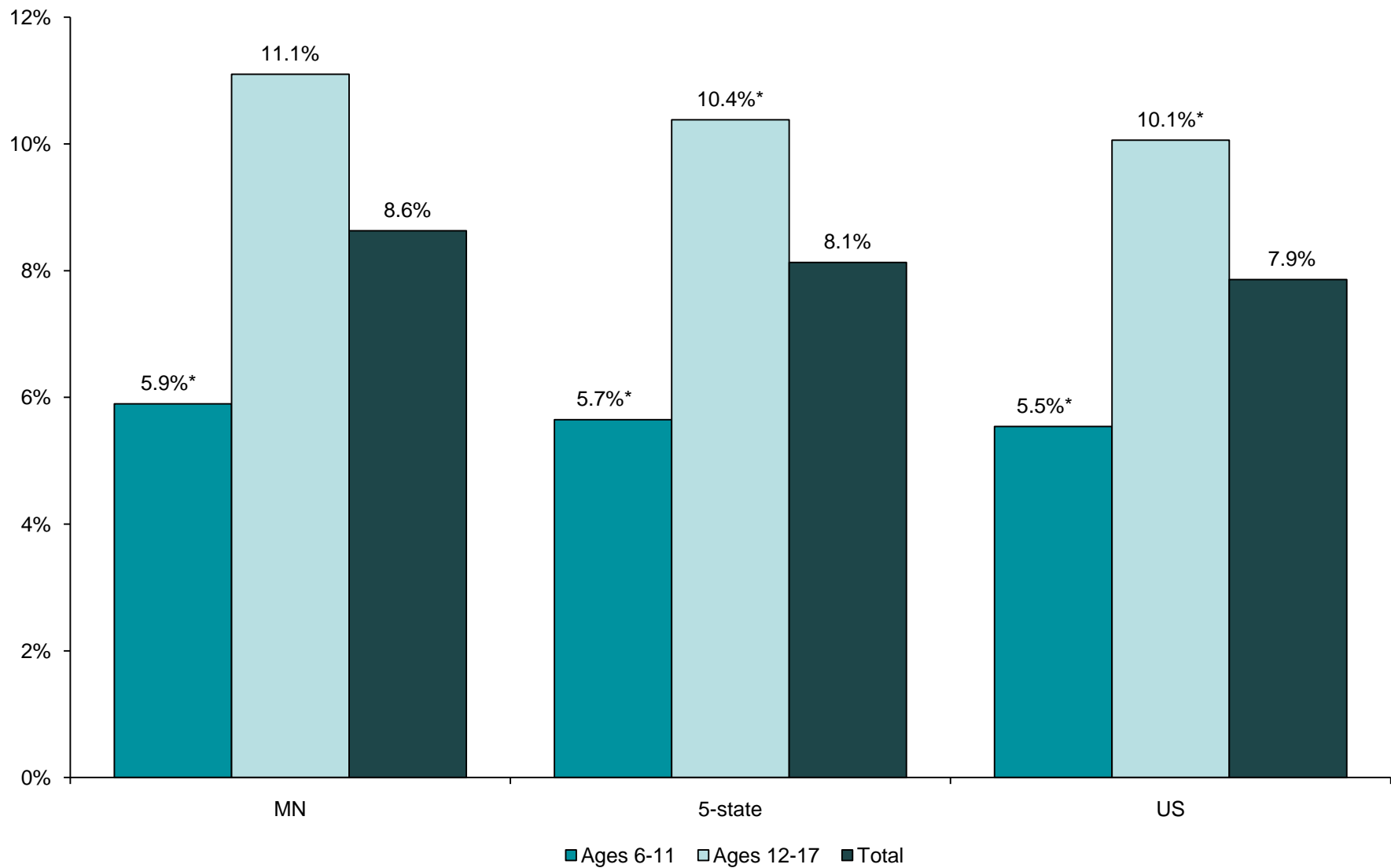
**Exhibit 4.11**  
**Percent of children with clinically diagnosed ADD/ADHD by age, 2007**



\*Indicates statistically significant difference from population total (95% level).

Source: Child and Adolescent Health Measurement Initiative (CAHMI), 2007 National Survey of Children's Health Indicator Data Set, Data Resource Center for Child and Adolescent Health, [www.childhealthdata.org](http://www.childhealthdata.org). Measure applies to children age 2 to 17 only.

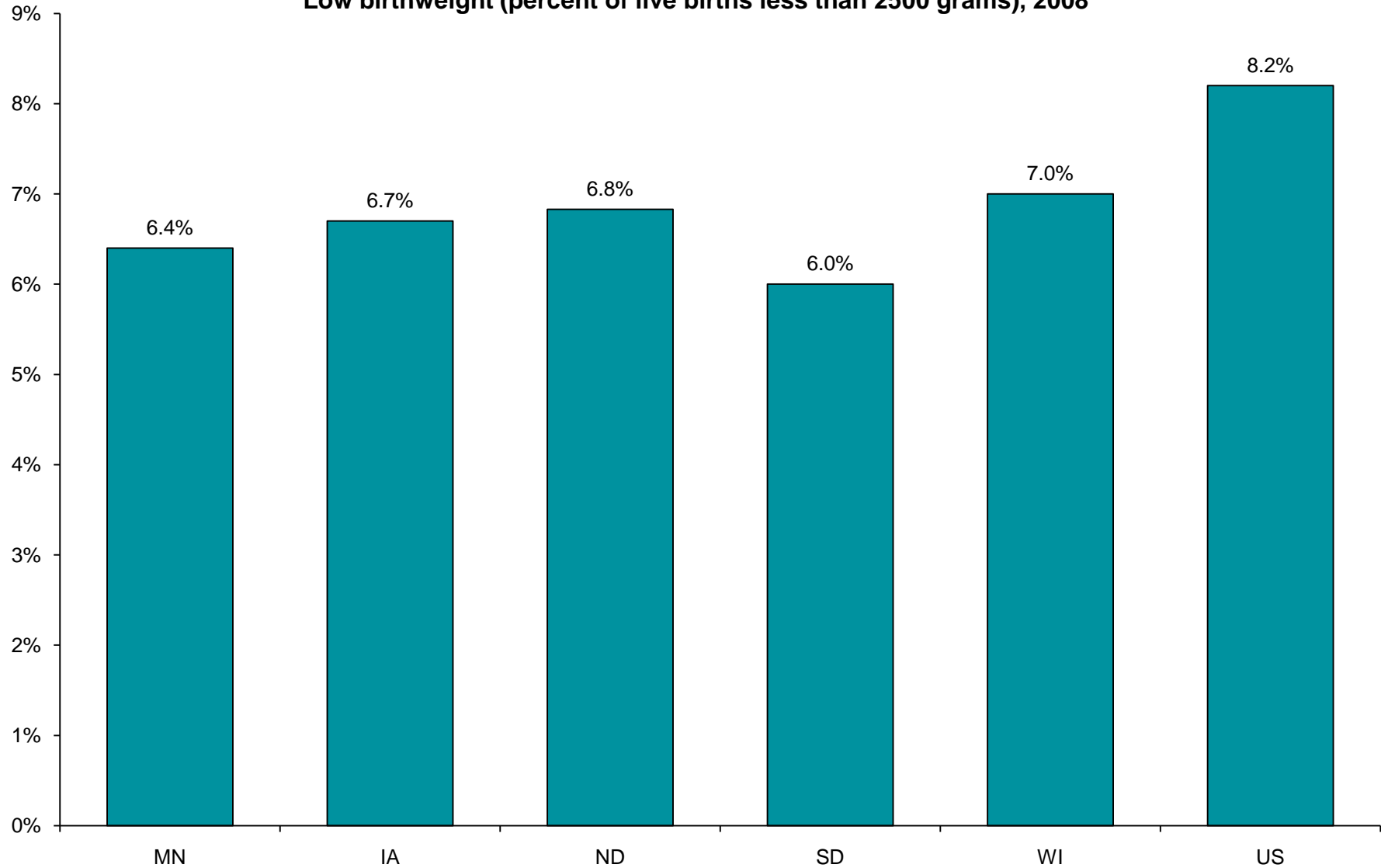
**Exhibit 4.12**  
**Percent of children ever diagnosed with depression/anxiety by age, 2007**



\*Indicates statistically significant difference from population total (95% level).

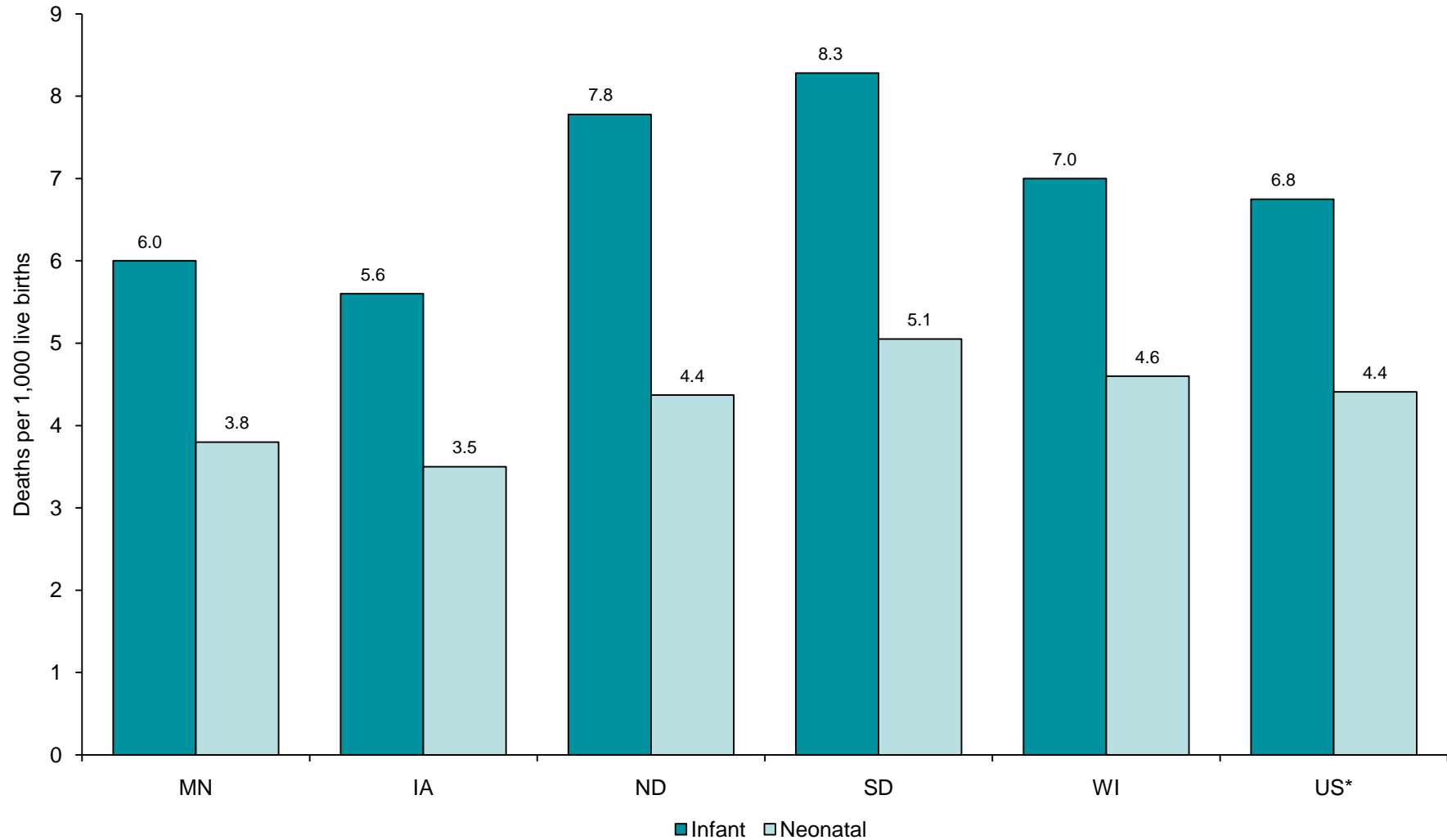
Source: Child and Adolescent Health Measurement Initiative (CAHMI), 2007 National Survey of Children's Health Indicator Data Set, Data Resource Center for Child and Adolescent Health, [www.childhealthdata.org](http://www.childhealthdata.org). Measure applies to children age 6 to 17 only.

**Exhibit 4.13**  
**Low birthweight (percent of live births less than 2500 grams), 2008**



Sources: Iowa Department of Public Health, Center for Health Statistics; Minnesota Department of Health, Center for Health Statistics; North Dakota Department of Health, Division of Vital Records; South Dakota Department of Health, Office of Data, Statistics, and Vital Records; Wisconsin Department of Health Services, Division of Public Health, Office of Health Informatics; National Center for Health Statistics, "Births: Preliminary Data for 2008," April 2010.

**Exhibit 4.14**  
**Infant and neonatal mortality rates, 2008**

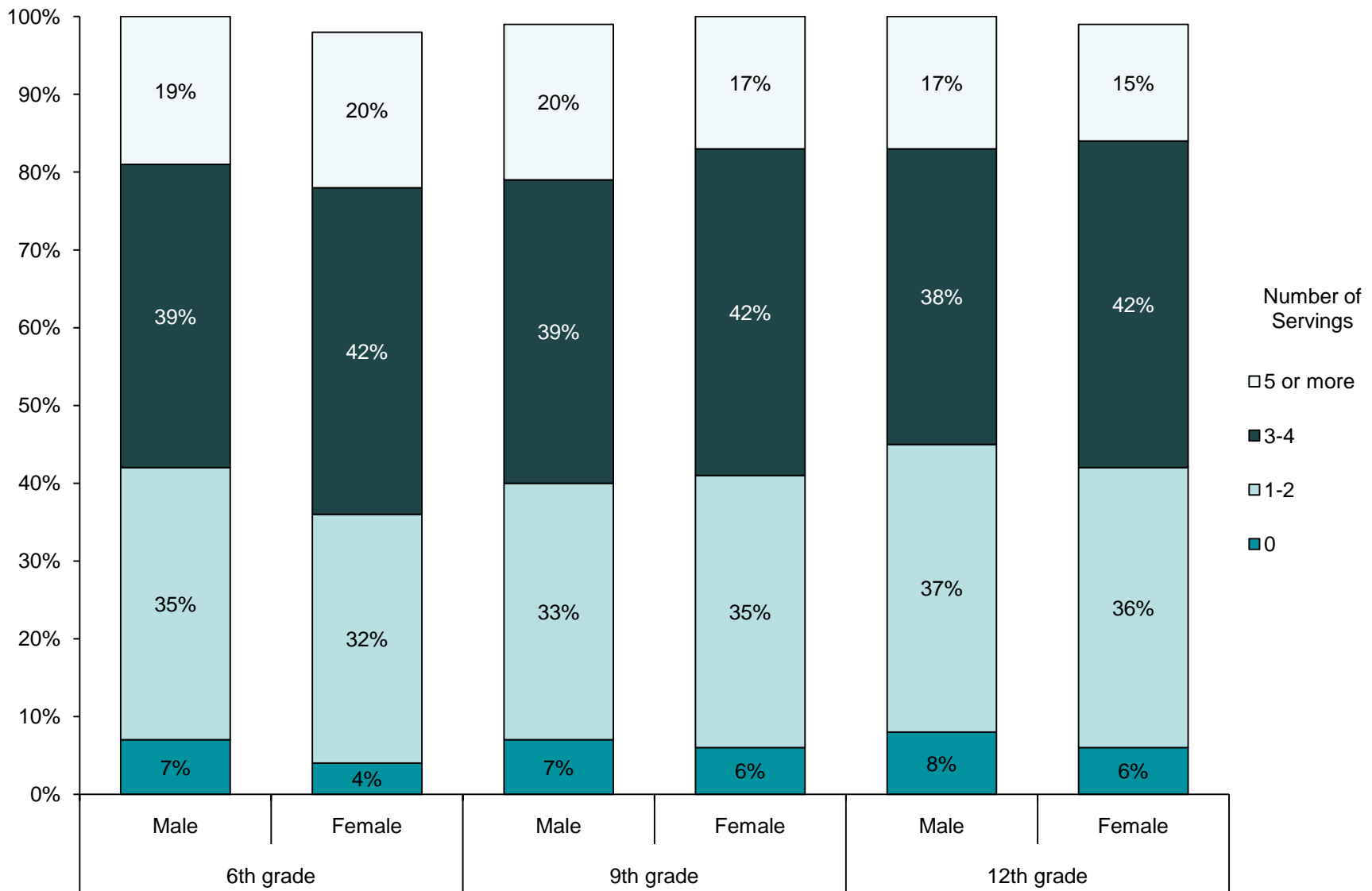


\* Most recent available national data are for 2007.

Sources: Iowa Department of Public Health, Center for Health Statistics; Minnesota Department of Health, Center for Health Statistics; North Dakota Department of Health, Division of Vital Records; South Dakota Department of Health, Office of Data, Statistics, and Vital Records; Wisconsin Department of Health Services, Division of Public Health, Office of Health Informatics; National Center for Health Statistics, "Deaths: Final Data for 2007," May 2010.

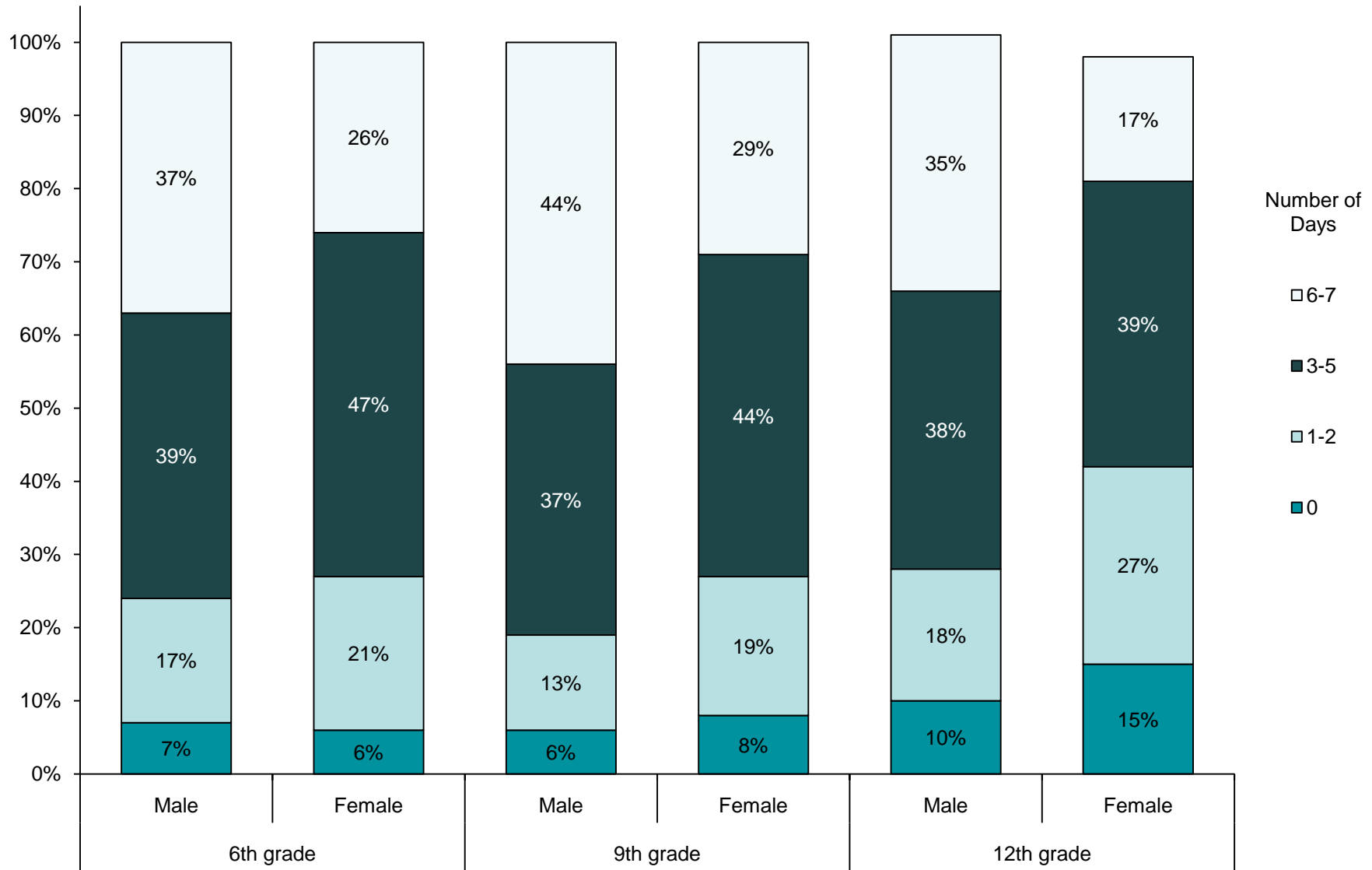
Note: Infant mortality rate is the number of infant deaths (under 1 year of age) per 1,000 live births; neonatal mortality rate is the number of deaths under 28 days of age per 1,000 live births.

**Exhibit 5.1**  
**Number of servings of fruits and vegetables per day for children, 2007**



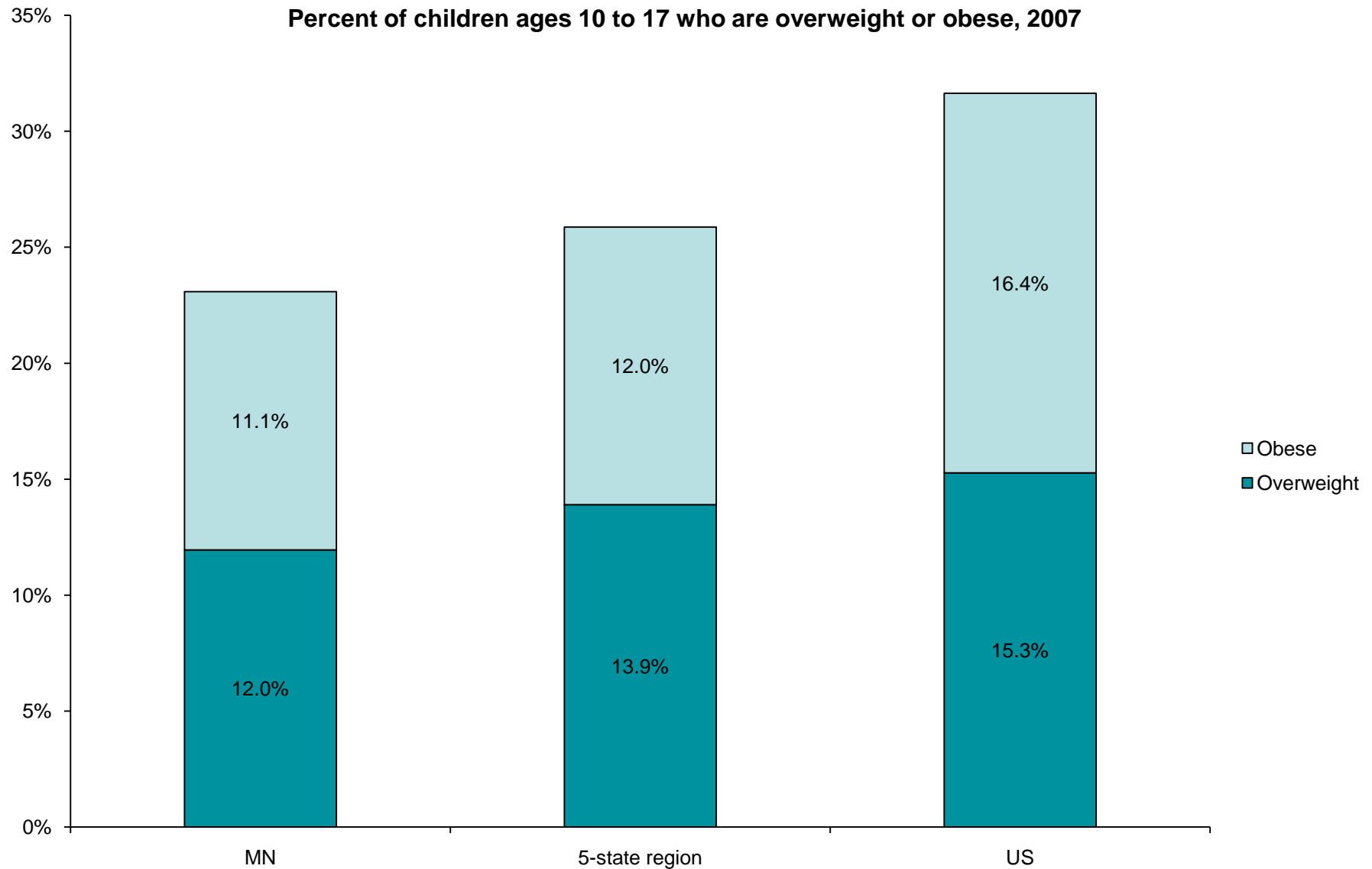
Source: Minnesota Student Survey, 2007.

**Exhibit 5.2**  
**Number of days per week physically active for at least 30 minutes for children, 2007**



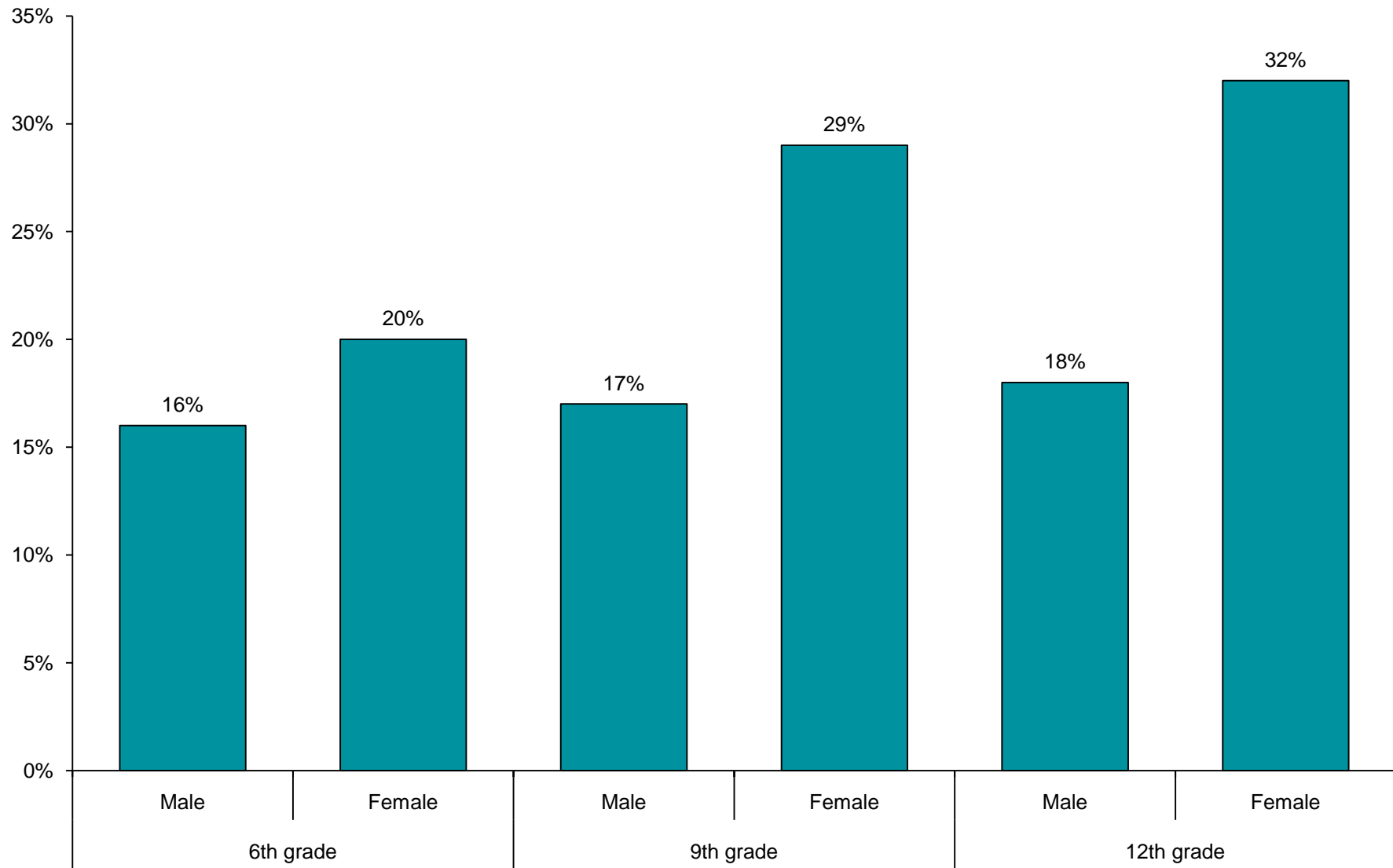
Source: Minnesota Student Survey, 2007.

**Exhibit 5.3**  
**Percent of children ages 10 to 17 who are overweight or obese, 2007**



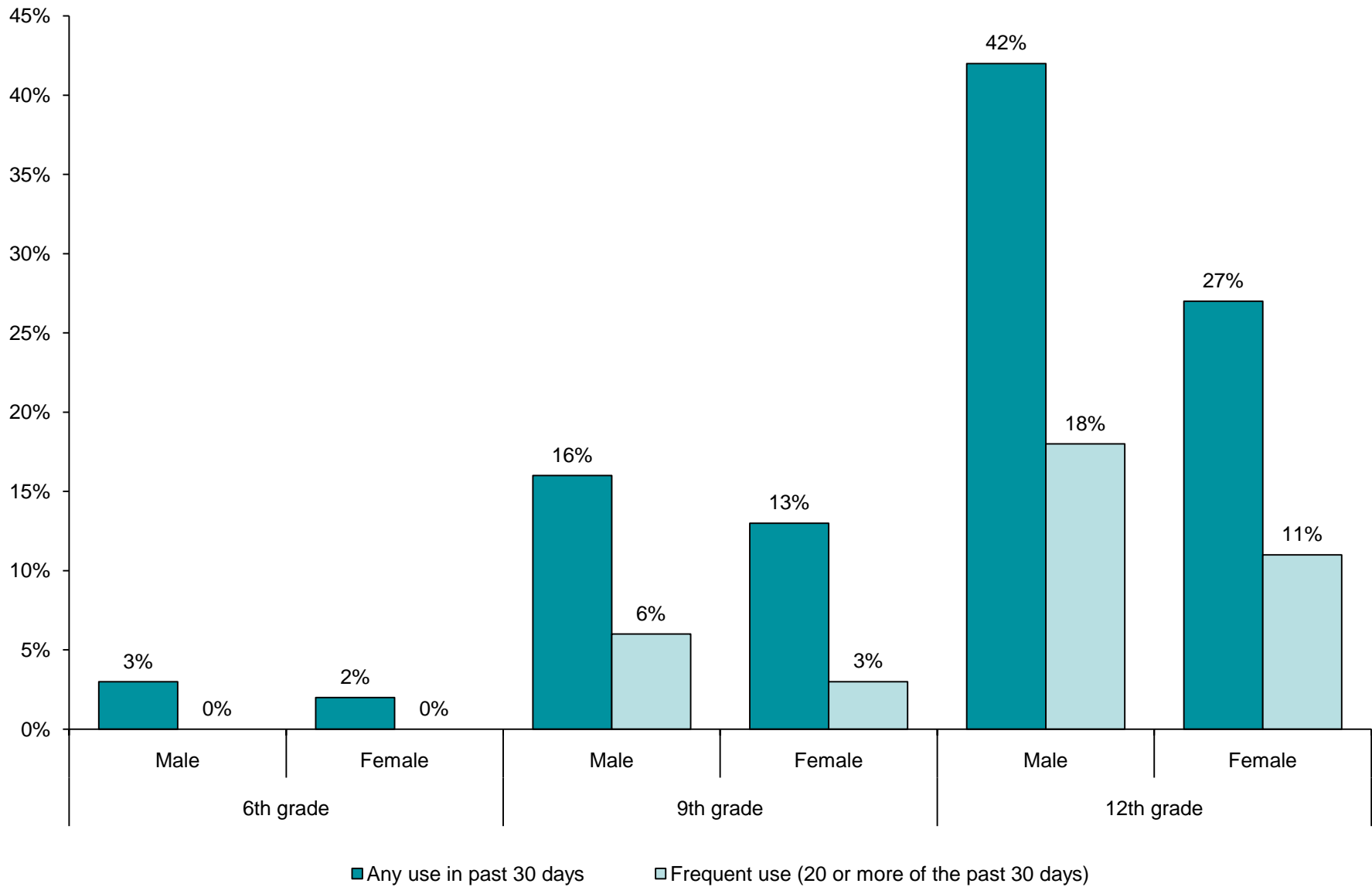
Source: Child and Adolescent Health Measurement Initiative (CAHMI), 2007 National Survey of Children's Health Indicator Data Set, Data Resource Center for Child and Adolescent Health, [www.childhealthdata.org](http://www.childhealthdata.org).

**Exhibit 5.4**  
**Percent of students reporting that they feel overweight, 2007**



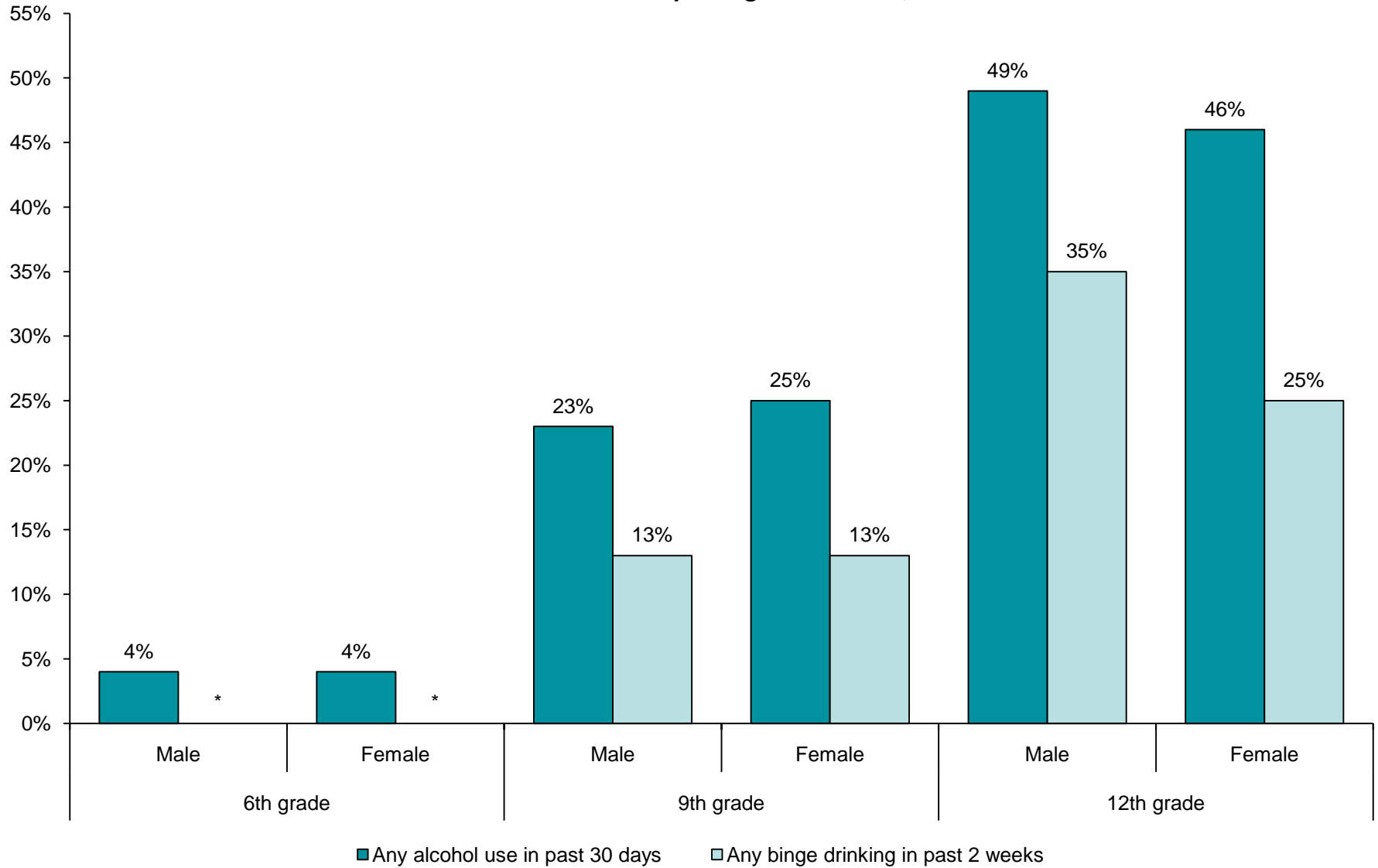
Source: Minnesota Student Survey, 2007.

**Exhibit 5.5**  
**Percent of students reporting tobacco use, 2007**



Source: Minnesota Student Survey, 2007.

**Exhibit 5.6**  
**Percent of students reporting alcohol use, 2007**

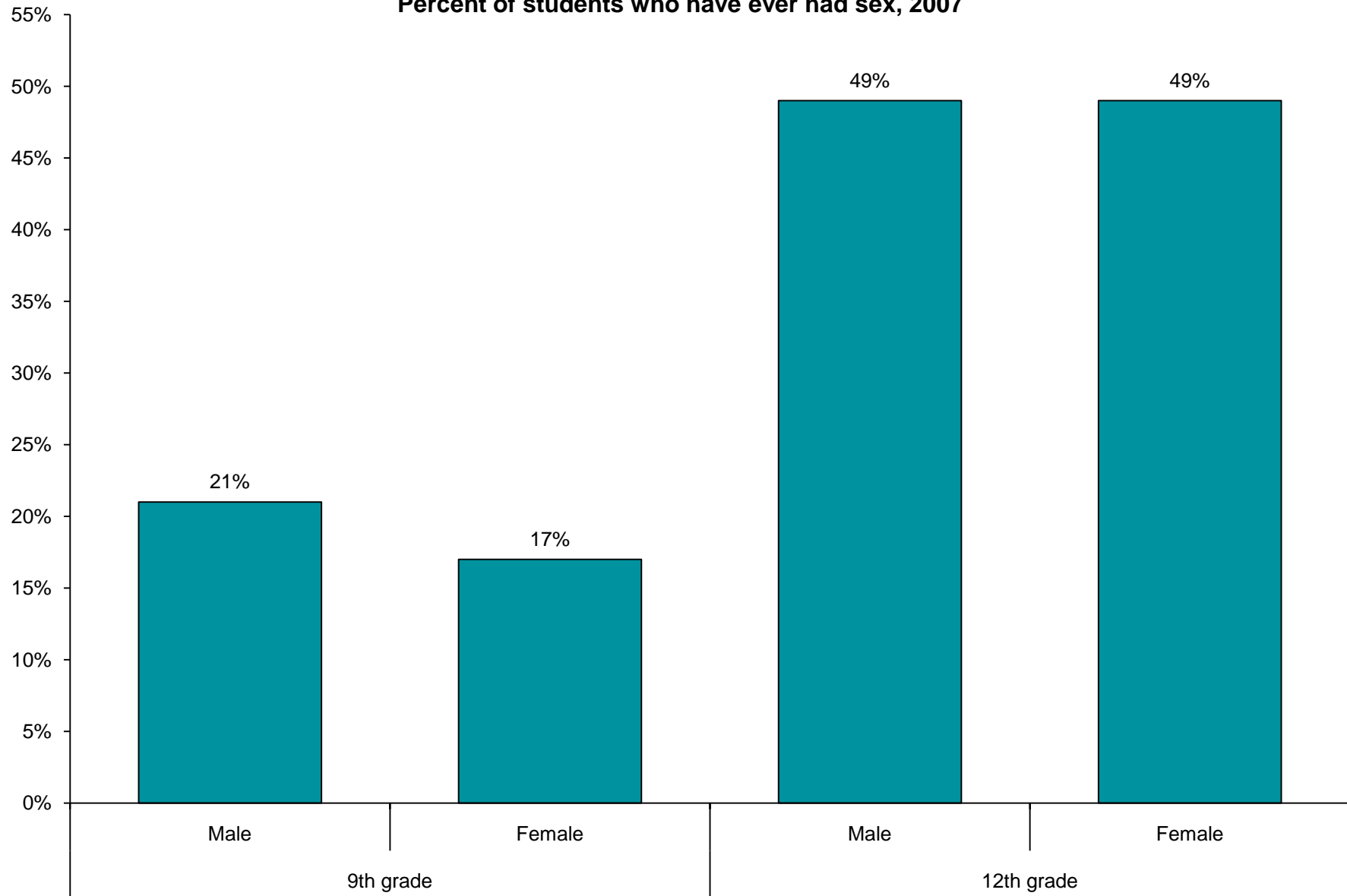


Source: Minnesota Student Survey, 2007.

Note: Binge drinking is defined as having 5 or more drinks in a row.

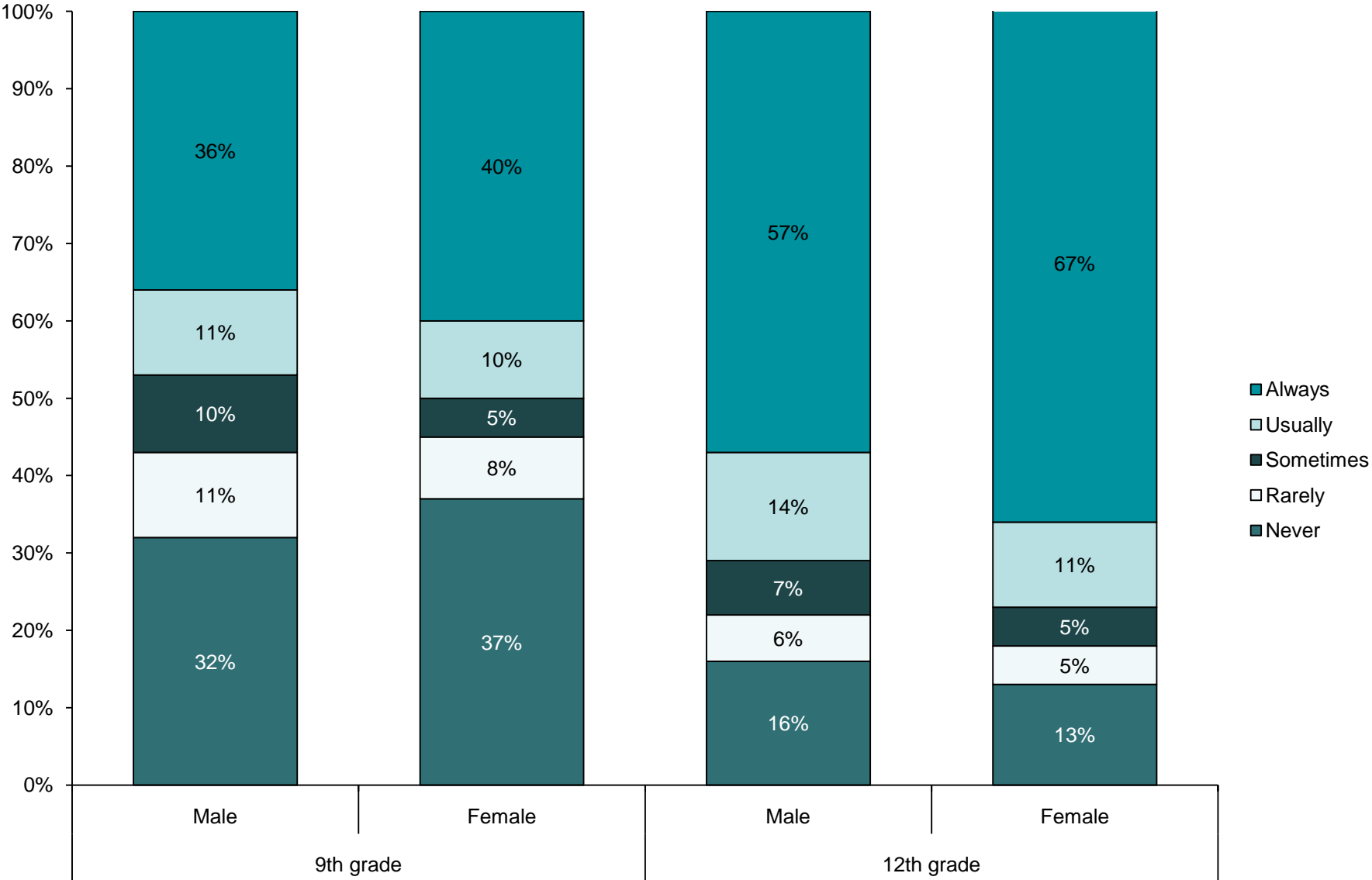
\* 6th graders were not asked this question.

**Exhibit 5.7**  
**Percent of students who have ever had sex, 2007**



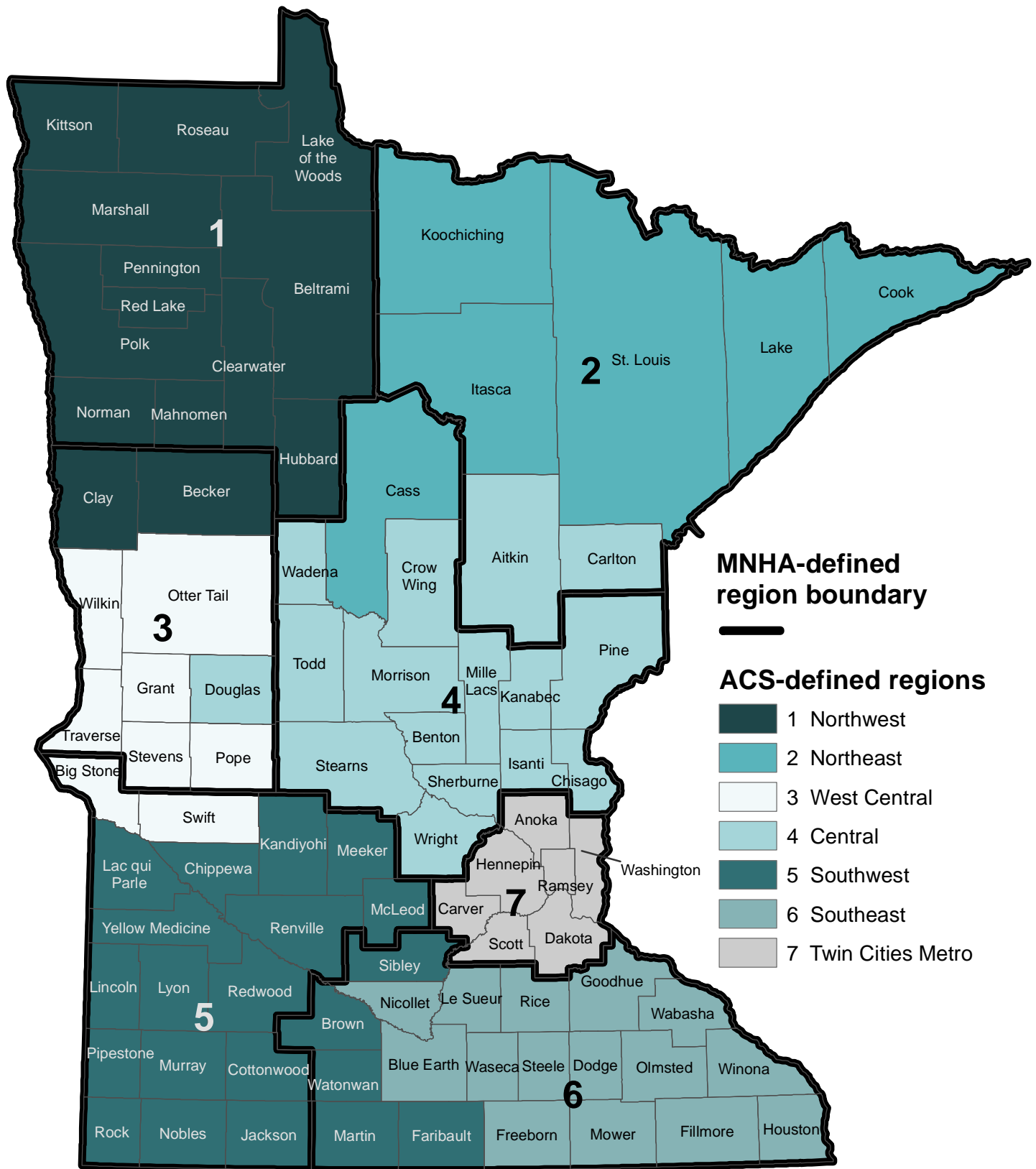
Source: Minnesota Student Survey, 2007.

**Exhibit 5.8**  
**Use of birth control among sexually active 9th and 12th graders, 2007**



Source: Minnesota Student Survey, 2007.

# Appendix 1 Region Definitions: Minnesota Health Access Survey (MNHA) vs. American Community Survey (ACS)



Source: 2009 Minnesota Health Access Survey;  
U.S. Census Bureau, 2008 American Community Survey.

**Appendix 2**  
**HHS Federal Poverty Guidelines, 2009\***

| <b>Persons in family</b> | <b>Poverty guideline</b> |
|--------------------------|--------------------------|
| 1                        | \$10,830                 |
| 2                        | 14,570                   |
| 3                        | 18,310                   |
| 4                        | 22,050                   |
| 5                        | 25,790                   |
| 6                        | 29,530                   |
| 7                        | 33,270                   |
| 8                        | 37,010                   |

For families with more than 8 persons, add \$3,740 for each additional person.

\* For the 48 contiguous states and the District of Columbia.

Source: U.S. Department of Health & Human Services, Assistant Secretary for Planning and Evaluation. <http://aspe.hhs.gov/poverty/09poverty.shtml>, accessed July 22, 2010.