

Obesity and Overweight Status in Minnesota WIC Children, 2019

Childhood obesity has both immediate and long lasting effects on the child. Obese children are more likely to have asthma, joint problems, high blood pressure, GERD (heartburn), obstructive sleep apnea, high cholesterol, and psychological stress.¹

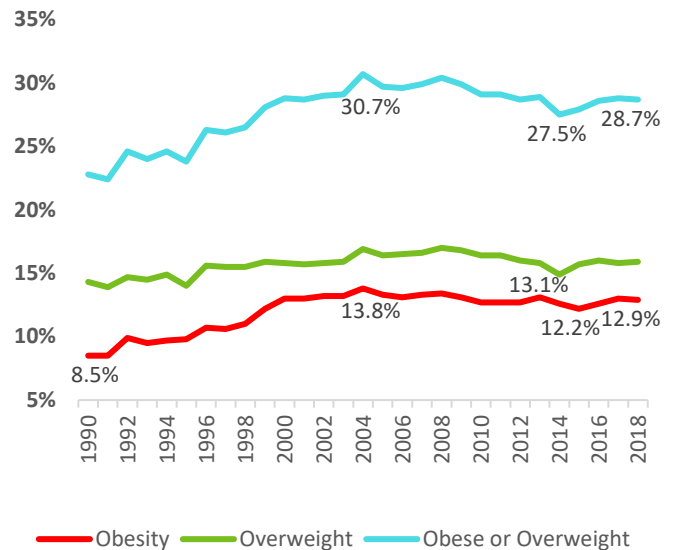
Obese or overweight children[‡] are also more likely to become overweight adults. Obesity in adults is associated with many chronic health conditions including cardiovascular disease, diabetes and certain cancers. Adults who were obese as children have more severe risk factors for these chronic conditions.¹

The WIC Program serves children up to age five living in low income households. WIC serves populations that are at higher risk for obesity than the general population.

Weight Status in Minnesota WIC Children

- Nationally, the prevalence of obesity in children ages 2 to 5 years increased from 9.4% in 2013-2014 to 13.9% in 2015-2016.²
- Obesity in children participating in the Minnesota WIC program remained stable during the same time period, decreasing slightly from 13.1% in 2013 to 12.9% in 2018. (Figure 1).³
- The estimated lifetime direct medical cost of childhood obesity is \$19,000 per child⁴. For every tenth percent decrease (770 children) in the MN WIC obesity rate, an estimated \$14.7 million could be saved.
- Obesity in Minnesota WIC children increased steadily from 8.5% in 1990 to a peak of 13.8% in 2004 to a low of 12.2% in 2015 to the current rate of 12.9% in 2018 (Figure 1).³
- Similarly, obesity and overweight status combined decreased from 30.7% in 2004 to a low of 27.5% in 2014 and 28.7% in 2018 (Figure 1).³
- In 2018, 17 counties met the Healthy People 2020 goal of 9.4% compared to 12 counties in 2013. (Figure 7).⁵

Figure 1. Obesity and Overweight Status in MN WIC Children Ages 2 to 5³



Minnesota WIC Promotes Healthy Weight

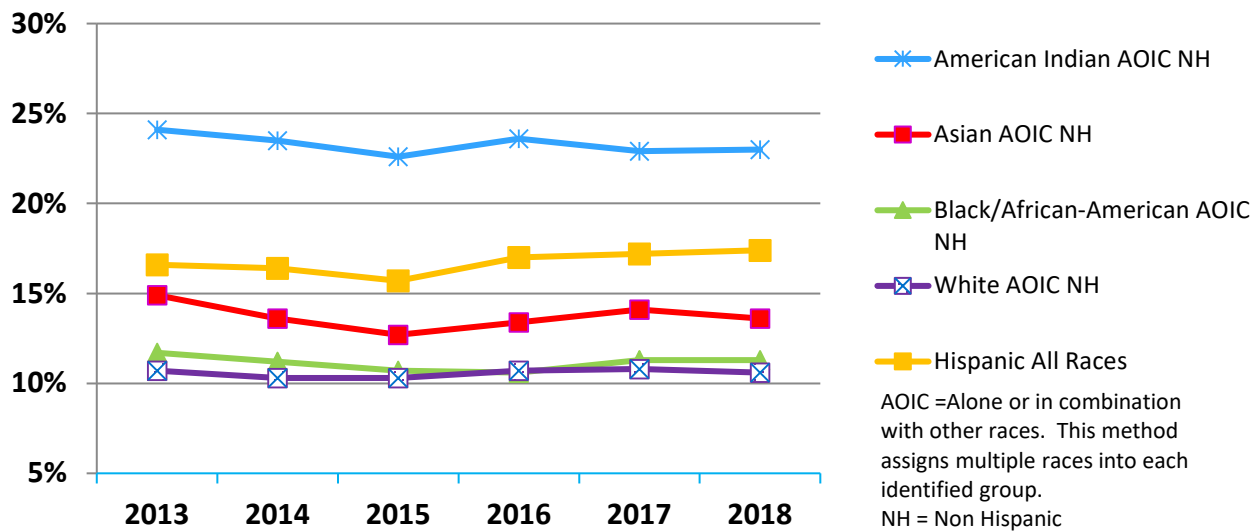
WIC promotes a healthy weight through:

- Individualized nutrition assessments and counseling;
- Providing a nutritious food package with low fat milk, whole grains, and fruits and vegetables;
- Monitoring appropriate weight gain and growth;
- Discouraging use of sweetened beverages;
- Encouraging families to be physically active and to limit screen time for television, computers, and video games;
- Referrals to community nutrition and physical activity resources;
- Promoting exclusive breastfeeding for the first six months of life and breastfeeding with healthy foods for the first year of life; and
- Promoting appropriate weight gain during pregnancy.

[‡]Obesity is a BMI (weight/height²) ≥ 95th percentile and overweight >85th percentile.

Health Inequities in Child Obesity

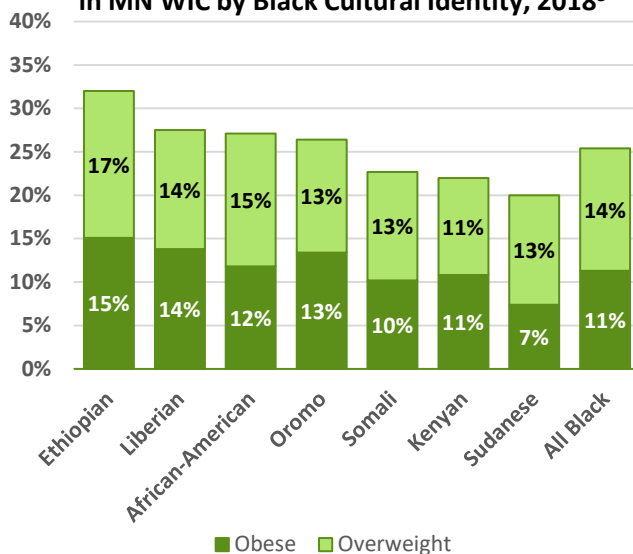
Figure 2. Obesity in MN WIC Children Ages 2 up to 5 years by Race/Ethnicity AOIC³



- Minnesota WIC child obesity rates declined from 2013 to 2018 in all race/ethnic groups, except Hispanic all races group (Figure 2).²
- Obesity rates were highest in American Indian (23.0%), Hispanic (17.4%) and Asian (13.6%) children (Figure 2).¹
- In 2018, American Indian (23.0%) rates, were over twice the rates of White (10.6%) and Black/African-American (11.3%) children (Figure 2).¹

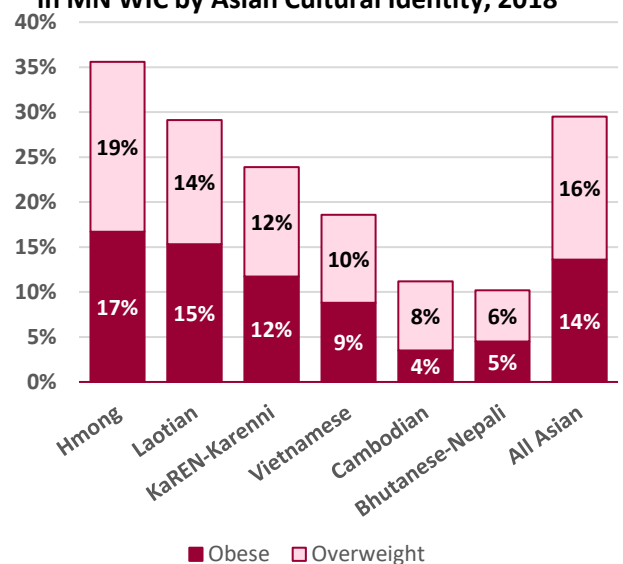
Obesity and Overweight Status by Cultural Identity

Figure 3. Child Obesity/Overweight Status in MN WIC by Black Cultural Identity, 2018³



- Ethiopian, Liberian, multigenerational African-American and Oromo children had the highest rates of obesity/overweight status among Blacks (Figure 4).²

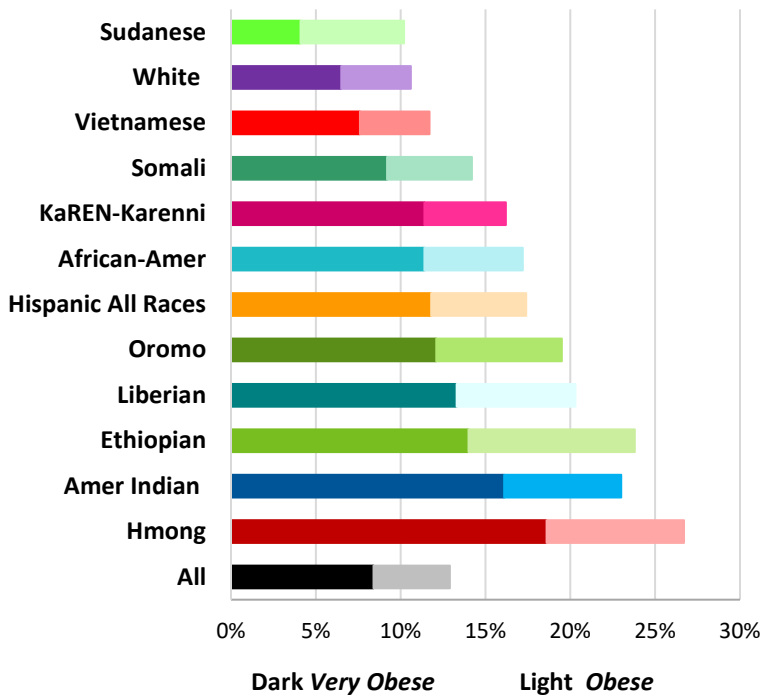
Figure 4. Child Obesity/Overweight Status in MN WIC by Asian Cultural Identity, 2018³



- There was a large variation in obesity and overweight status among Asian cultural identity groups (Figure 4).²
- More than one in three Hmong children are obese or overweight. (Figure 4).²

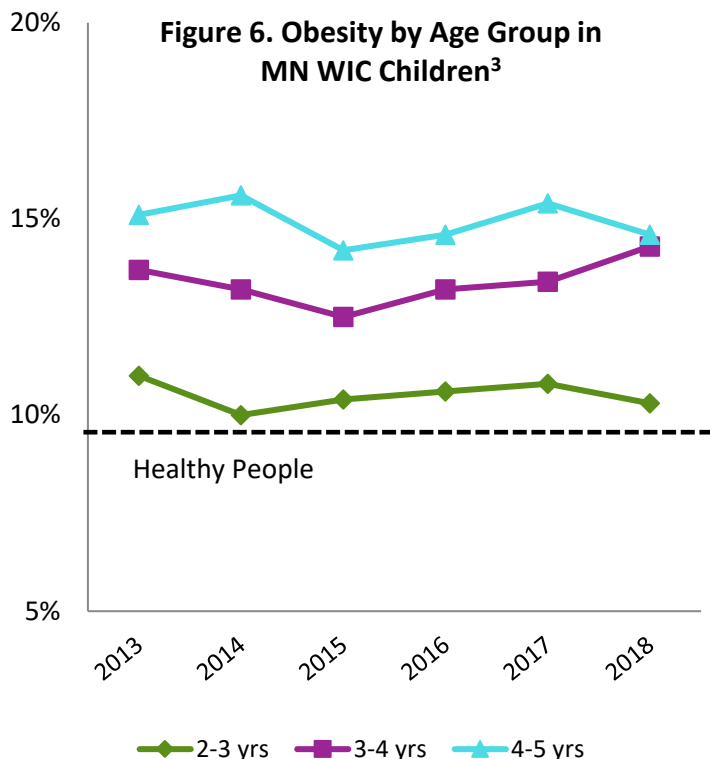
Very Obese Weight Status

Figure 5. Obese and Very Obese Status in MN WIC Children by Race/Ethnicity AOIC and Cultural Identity, 2018³



- Very obese status (> 97.5th percentile), although not precise, provides information about the severity of obesity within each group.
- Very obese status was highest in Hmong (18.6%) and American Indian (16.2%) children (Figure 5).³
- Children whose caregivers self-identified as Ethiopian (14.0%), Liberian (13.3%) and Oromo (12.1%) have higher rates of very obese status than multigenerational African-American (11.4%) children (Figure 5).³
- High birth weight (>4000 g) in MN WIC children was predictive of obesity.⁵
- Breastfeeding for 26 weeks or more was protective of obesity in MN WIC children for White NH, American Indian NH and Hispanic groups.⁵
- Each of these cultures has its own traditions and dietary practices. Evaluation of WIC data by cultural identity enriches our understanding in ways that allow for more effective, targeted services.

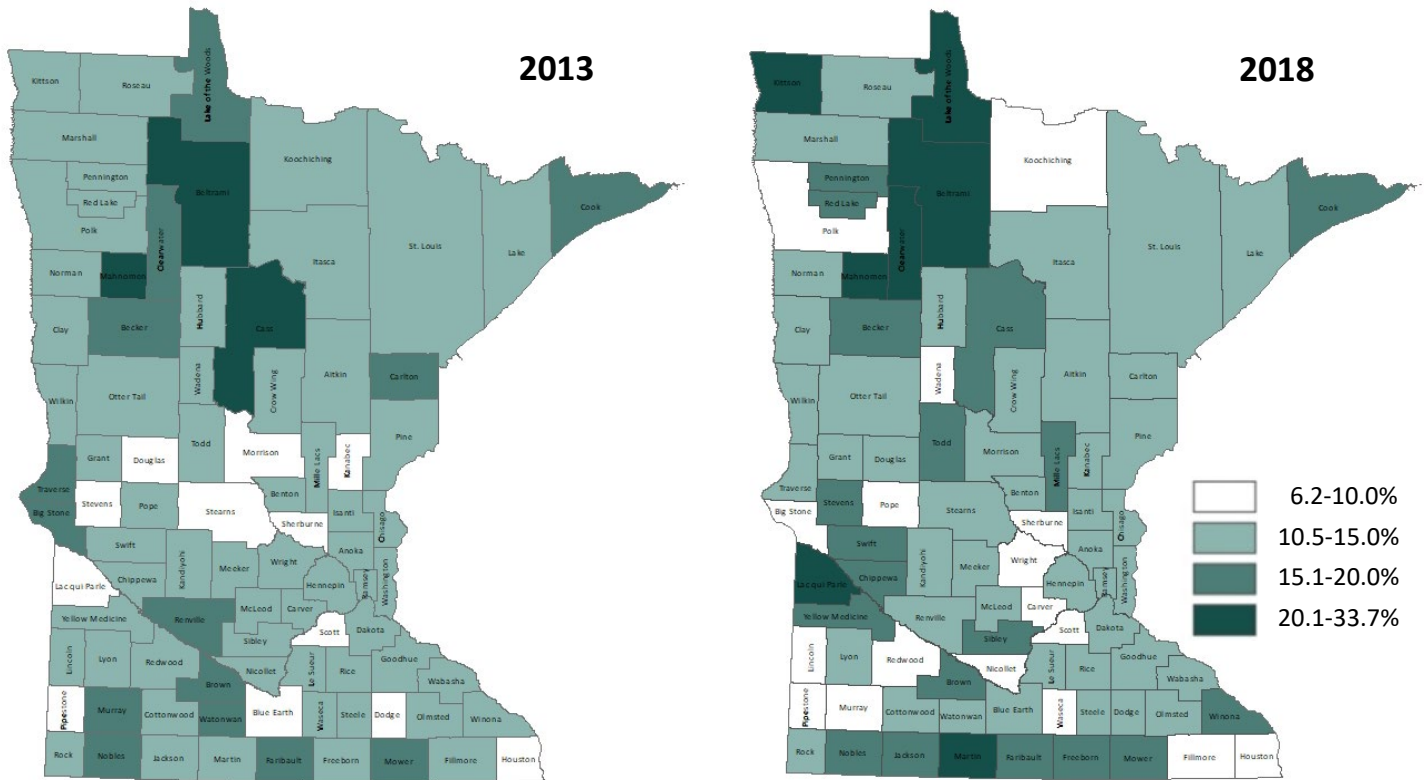
Obesity by Age Group



- Obesity increased with child age (Figure 6).
- Children ages four to five years had an obesity rate over 1.5 times the Healthy People 2020 goal (14.6 compared to 9.4) (Figure6).³
- In 2018, rates increased in the 3 to 4 year olds, but decreased in the other age groups (Figure 6).³
- Obesity at age 2 to 3 in MN WIC children was highly predictive of obesity at ages four to five years (Figure 5).³

Obesity by County of Residence

Figure 7. Obesity in MN WIC Children Ages 2 to 5 During Calendar Years 2013 and 2018³



- Obesity rates improved in 8 counties from 2013 to 2018, but worsened in 14 counties (Figure 7).³
- Greater Minnesota counties had higher rates than metro counties (Figure 7).³
- In 2018, 17 counties met the Healthy People 2020 goal of 9.4%, compared to 12 counties in 2013 (Figure 7).^{3,5}

References

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