

DATA AND TREND ANALYSIS

Nutrition, Physical Activity and Obesity



Good nutrition, physical activity, and a healthy body weight are essential parts of a person's overall health and well-being. Together, these can help decrease a person's risk of developing serious health conditions, such as high blood pressure, high cholesterol, diabetes, heart disease, stroke, and cancer. A healthful diet, regular physical activity, and achieving and maintaining a healthy weight also are important to manage existing health conditions so they do not worsen over time.

Fruit and Vegetable Consumption

DESCRIPTION

Fruits and vegetables are key components in a healthy diet because they are rich sources of vitamins, minerals, flavonoids, antioxidants and fiber. Consuming a wide variety of fruits and vegetables helps to ensure an adequate intake of all the essential nutrients. Including the recommended levels of fruits and vegetables in the daily diet tends to decrease the risk of noncommunicable diseases such as stroke, heart disease and cancer. Inadequate consumption of fruits and vegetables contributes to an estimated 5.2 million deaths worldwide.¹

HOW WE ARE DOING

In 2015 nationally, 12.2 percent of adults met the fruit intake recommendations, and 9.3 percent met vegetable intake recommendations. Compared to Minnesota, 11.6 percent met the fruit intake requirement and 8.1 percent met the vegetable recommendation.² In that same year, about 22 percent of Minnesota adults ate less than one daily vegetable and 37 percent ate less than one daily fruit.³ In 2014 among Ramsey County adults, 12.8 percent reported eating less than one daily vegetable and 15.6 percent ate less than one fruit.⁴ Fruit and vegetable intake among Ramsey County youth is also a concern. In 2016, about 6 percent of 9th grade students reported that they had eaten no fruit in the past seven days, and 11.5 percent said they had eaten no vegetables during that time.⁵

BENCHMARK INDICATOR

Healthy People 2020:

- 1) Increase the contribution of fruits to the diets of the population aged 2 years and older. U.S. Target: 0.93 cup equivalent per 1,000 calories.
- 2) Increase the contribution of total vegetables to the diets of the population aged 2 years and older. U.S. Target: 1.16 cup equivalent per 1,000 calories.⁶

DISPARITIES

There are disparities related to fruit and vegetable consumption. Rates of eating less than one daily fruit or vegetable are highest among American Indian/Alaska Native individuals, followed by non-Hispanic black and individuals of two or more races.² In Ramsey County, adults with only high school education generally have lower fruit and vegetable consumption than those with college education.⁴ Adults with incomes below 200 percent of the federal poverty level also report eating less fruits and vegetables.⁴ Individuals with lower incomes are more likely to use food shelves; because of financial constraints, and food shelves often have limited numbers of fresh fruits and vegetables to offer.

RISK FACTORS

Factors affecting fruit and vegetable consumption are complex, but socio-economic status and environmental factors play a large role. The World Health Organization recommends the following actions to address low fruit and vegetable consumption: pricing incentives to lower the cost; promotion and support of gardening; behavioral interventions to boost consumption; and improvements in food systems.¹

Information to note

- Among Ramsey County adults, 12.8% reported eating less than one daily vegetable and 15.6% ate less than one fruit.
- Among Ramsey County 9th graders, 20.2% reported getting five or more daily servings of fruit, fruit juice or vegetables.
- Individuals with lower incomes or less education are at greater risk for low fruit and vegetable consumption.



Community voice

"Drinking plenty of water, eating veggies, stable diet."
- Male, age 25-34

1878 respondents identified food and nutrition as influencing their health. About half of these respondents (48.8%) attributed positive health to healthy dieting and fruit and vegetable consumption.

¹ Increasing fruit and vegetable consumption to reduce the risk of noncommunicable diseases. World Health Organization. http://www.who.int/elena/titles/fruit_vegetables_ncds/en/. Accessed June 2018.

² Lee-Kwan SH, Moore LV, Blanck HM, Harris DM, Galuska D. Disparities in State-Specific Adult Fruit and Vegetable Consumption — United States, 2015. MMWR Morb Mortal Wkly Rep 2017;66:1241–1247. DOI: <http://dx.doi.org/10.15585/mmwr.mm6645a1>.

³ Centers for Disease Control and Prevention. Nutrition, Physical Activity, and Obesity: Data Trends & Maps. <https://www.cdc.gov/nccdphp/dnpao/data-trends-maps/index.html>. Accessed June 2018.

⁴ Saint Paul – Ramsey County Public Health. Metro SHAPE Ramsey County Data Book 2014. https://www.ramseycounty.us/sites/default/files/Open%20Government/Public%20Health%20Data/ramsey_county_metro_SHAPE_2014_survey.pdf. Accessed June 2018.

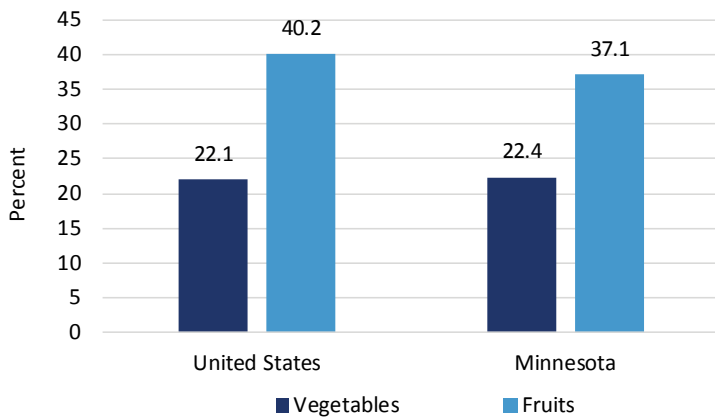
⁵ Minnesota Student Survey. Saint Paul Ramsey County Public Health data set.

⁶ Nutrition and Weight Status. HealthyPeople.gov. <https://www.healthypeople.gov/2020/topics-objectives/topic/nutrition-and-weight-status/objectives>. Accessed June 2018.

WHAT RAMSEY COUNTY GOVERNMENT IS DOING

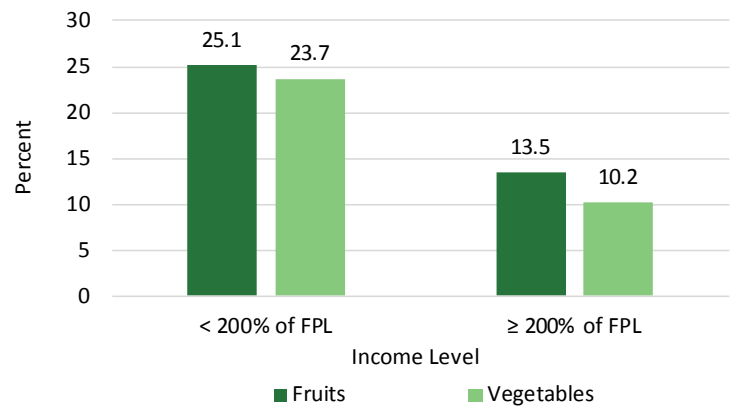
The Statewide Health Improvement Partnership (SHIP) work has become an integral part of Saint Paul- Ramsey County Public Health's efforts to help combat and prevent chronic disease among Ramsey County residents, including focusing on increasing fruit and vegetable consumption. Efforts include working within our Ramsey County district schools to implement school yard garden programs, farm to school strategies, and smarter lunchroom strategies. Also, SHIP funds are used to help improve Farmers Market access, improve food shelf offerings and improve offerings in vending machines, as well as improve childcare offerings and expand gardens in the workplace. Healthy eating and physical activity are vital to preventing and addressing chronic disease.

Adults Who Consumed Less Than One Fruit or Vegetable the Previous Day, 2015



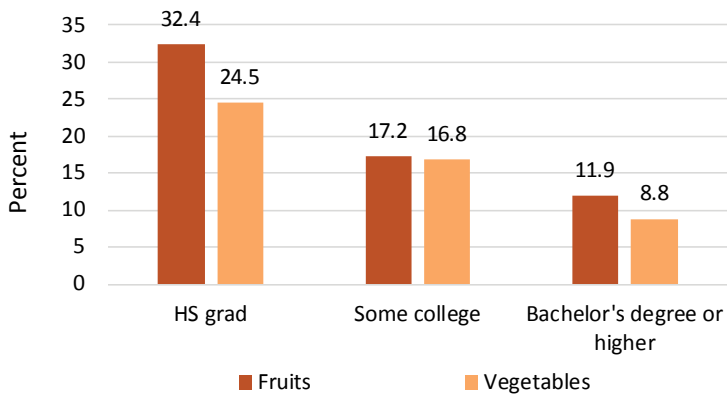
Source: Centers for Disease Control and Prevention.⁷

Adults Who Consumed Less Than One Fruit or Vegetable the Previous Day by Income, Ramsey County, 2014



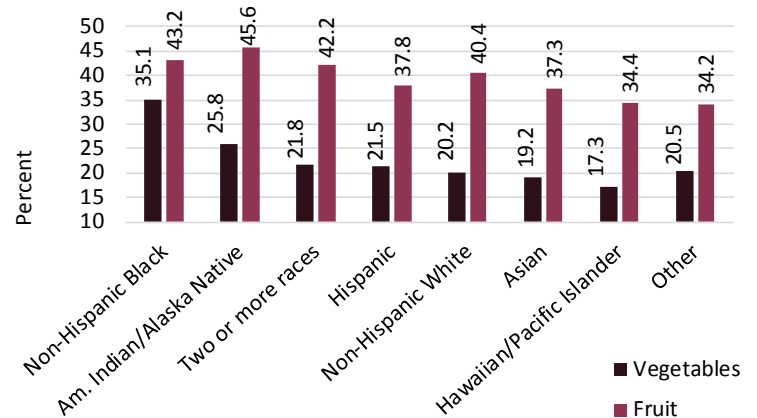
Source: Metro SHAPE Ramsey County Data Book 2014.⁸

Adults Who Consumed Less Than One Fruit or Vegetable the Previous Day by Education, Ramsey County, 2014



Source: Metro SHAPE Ramsey County Data Book 2014.⁹

Adults Who Consumed Less Than One Fruit or Vegetable the Previous Day by Race/Ethnicity, U.S., 2015



Source: Centers for Disease Control and Prevention.¹⁰

⁷ Data Trends & Maps. Centers for Disease Control and Prevention. <https://www.cdc.gov/nccdphp/dnpao/data-trends-maps/index.html>. Accessed June 2018.

⁸ Saint Paul – Ramsey County Public Health. Metro SHAPE Ramsey County Data Book 2014. <https://www.ramseycounty.us/your-government/open-government/research-data/public-health-data>. Accessed June 2018.

⁹ Saint Paul – Ramsey County Public Health. Metro SHAPE Ramsey County Data Book 2014. <https://www.ramseycounty.us/your-government/open-government/research-data/public-health-data>. Accessed March 2018.

¹⁰ Disparities in Race-Specific Fruit and Vegetable Consumption. Centers for Disease Control and Prevention. <https://www.cdc.gov/mmwr/volumes/66/wr/mm6645a1.htm>. Accessed June 2018.

DESCRIPTION

Most data about people who are overweight or obese is from self-reported height and weight which is then used to calculate body mass index (BMI). Overweight means a BMI that is 25.0- 29.9; obese is 30.0 or more.¹ People who are obese can have many serious health problems including: high blood pressure, high cholesterol, diabetes, heart disease, stroke, gallbladder disease, arthritis, sleep apnea, cancer, mental illness and low quality of life. Obesity has a big impact on the economy. There are increased health care costs and people missing or not being productive at work or school.²

HOW WE ARE DOING

Many adults living in the U.S. are obese (36.5 percent).² In Minnesota, close to 30 percent of adults had obesity in 2016.³ About 34 percent of Ramsey County adults who answered a survey in 2014 were overweight and 27 percent were obese. These rates are almost the same as other adults in the metro area and statewide.⁴

BENCHMARK INDICATOR

Healthy People 2020: Reduce the proportion of adults who are obese.

U.S. Target: 30.5 percent.⁵

DISPARITIES

Nationally, there are striking disparities among racial/ethnic groups. Non-Hispanic black adults have the highest rates of obesity (48.1 percent), followed by Hispanic adults (42.5 percent), non-Hispanic white adults (34.5 percent), and non-Hispanic Asian adults (11.7 percent).² In the six-county metro area, adults with less education or low incomes are more obese.⁴

RISK FACTORS

Obesity can be caused by many things including family history, diet, inactivity and low socioeconomic status. Other things include healthy food availability, physical activity environment, education and food marketing.²

WHAT RAMSEY COUNTY GOVERNMENT IS DOING

Saint Paul – Ramsey County Public Health promotes healthy eating and active living with funding from Minnesota's Statewide Health Improvement Partnership (SHIP). These activities include working toward healthier food access such as within workplaces, food shelves, neighborhoods and housing sites. It also includes the encouragement of drinking water instead of sugar-sweetened beverages within public housing sites, park and rec departments and other community destinations. Additionally, working toward having a more active community includes providing support for pedestrian and bicycle plans. The Saint Paul- Ramsey County Food and Nutrition Commission also works towards providing healthy food recommendations to elected officials. Finally, Saint Paul-Ramsey County Public Health is promoting long-term obesity prevention by supporting breastfeeding through initiating four Baby Cafés, applying to become a Breastfeeding Friendly Health Department, and co-collaborating a Metro Breastfeeding Coalition.

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Information to note

- Among Ramsey County residents surveyed in 2014, about 34 percent were overweight and 27 percent obese.
- There are striking disparities related to race/ethnicity, education and income.

¹ Classification of Overweight and Obesity by BMI, Waist Circumference, and Associated Disease Risks. National Heart, Lung, and Blood Institute. https://www.nhlbi.nih.gov/health/educational/lose_wt/BMI/bmi_dis.htm. Accessed January 2018.

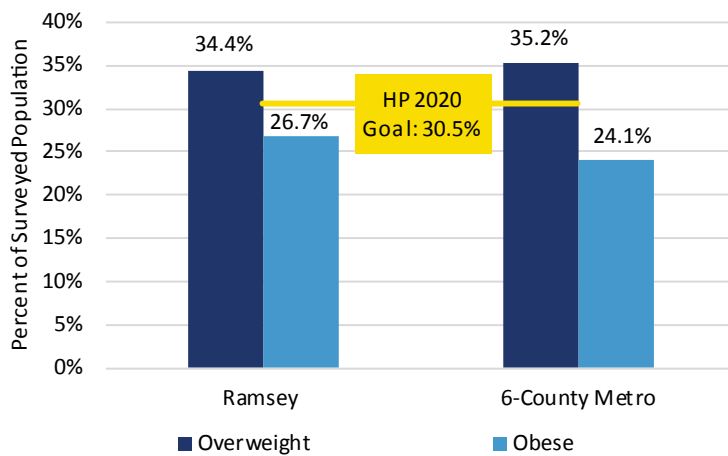
² Adult Obesity Cause & Consequences. Centers for Disease Control and Prevention. <https://www.cdc.gov/obesity/adult/>. Accessed January 2018.

³ Obesity in Minnesota. Quick Facts. Minnesota Department of Health. <http://www.health.state.mn.us/cdrr/obesity/index.html>. Accessed January 2018.

⁴ Saint Paul – Ramsey County Public Health. Metro SHAPE Ramsey County Data Book 2014. <https://www.ramseycounty.us/your-government/open-government/research-data/public-health-data>. Accessed January 2018.

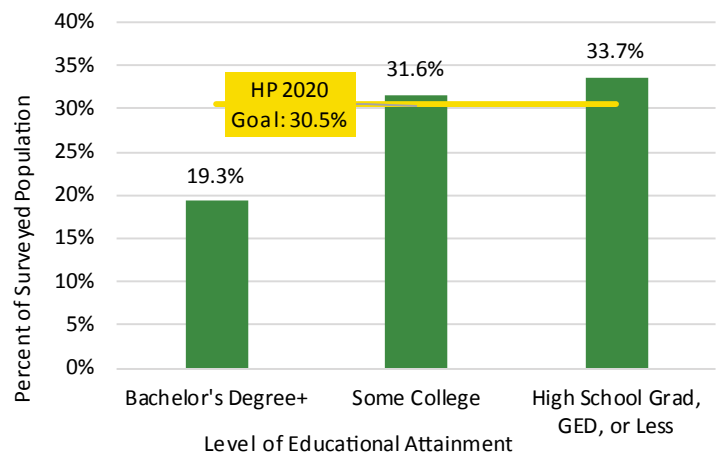
⁵ Nutrition and Weight Status. Healthy People 2020. <https://www.healthypeople.gov/2020/topics-objectives/topic/nutrition-and-weight-status/objectives>. Accessed January 2018.

Overweight and Obesity Status, 2014



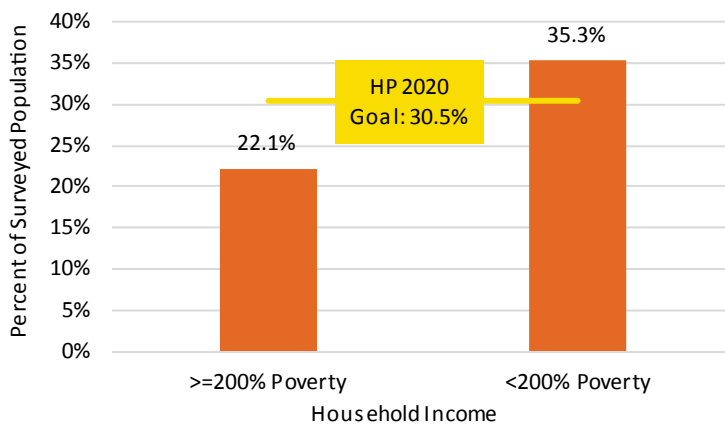
Source: Saint Paul - Ramsey County Public Health. Metro SHAPE Ramsey County Data Book 2014.⁶

Obesity Status by Education, Six-County Metro, 2014



Source: Metro Public Health Analyst Network. Metro SHAPE Six County Data Book 2014.⁶

Obesity Status by Household Income, Six-County Metro, 2014



Source: Metro Public Health Analyst Network. Metro SHAPE Six County Data Book 2014.⁶

⁶ Saint Paul - Ramsey County Public Health. Metro SHAPE Ramsey County Data Book 2014. <https://www.ramseycounty.us/your-government/open-government/research-data/public-health-data>. Accessed January 2018.

DESCRIPTION

This indicator focuses on the rate of overweight and obesity among youth. Most data on overweight and obesity is based on self-reported height and weight data which is then used in a formula to calculate body mass index (BMI). Obesity in children puts them at higher risk for other conditions and diseases, including asthma, sleep apnea, bone problems, diabetes and heart disease. Children with obesity are bullied more than normal weight students, and are more likely to be depressed, socially isolated and have lower self-esteem.¹

HOW ARE WE DOING

Looking at national data from 2011 – 2014, the prevalence of obesity among youth 2 – 19 years remained stable at about 17 percent. However, there are age group differences, with the rates among 2 to 5-year-olds decreasing significantly over the last decade. Prevalence of obesity is 8.9 percent among 2 to 5-year-olds, compared to 17.5 percent among 6 to 11-year-olds, and 20.5 percent among 12 to 19-year-olds.¹ In 2016 among Minnesota 9th and 11th graders, about 10 percent are obese, with another 14 percent overweight. In Ramsey County, the percent of overweight students is about the same as Minnesota, but the obesity rates are several percentage points higher.²

BENCHMARK INDICATOR

Healthy People 2020: Reduce the proportion of adolescents aged 12 to 19 years who are considered obese.

U.S. Target: 14.5 percent.³

DISPARITIES

There are gender differences in percentages of overweight and obese among young people. From 2010-2016 in Ramsey County, about 29 percent of 9th grade males have been overweight or obese, which is higher than females, but has stayed consistent. Females have lower rates than males, but rates have been creeping upward. In 2010, 20 percent of 9th grade girls were overweight or obese. That rate rose to 21 percent in 2013 and 23 percent in 2016. There are also economic disparities- as income goes up, the percentage of obese youth goes down. Racial and ethnicity disparities also exist. In 2016 among Ramsey County 8th, 9th and 11th grade students combined, 29.4 percent of students of color were overweight or obese, in comparison to 21.7 percent of white students.²

RISK FACTORS

Obesity is a complex issue and results from a combination of contributing factors including family history, unhealthy diet, physical inactivity and low socioeconomic status. Additional social factors that impact obesity include the food and physical activity environment, education and food marketing.¹ Numerous factors contribute to physical inactivity, including unsafe neighborhoods, lack of parks and walkable sidewalks, and reduced physical education classes in schools. The use of electronic devices by youth is also growing, which could result in adolescents becoming less active, which may lead to excess weight.

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Information to note

- The percentage of 9th grade males in Ramsey County who are overweight or obese has stayed consistent at 29 compared to a lower but climbing rate among females at 23%.
- If children are overweight or obese, their risk factors for obesity and disease in adulthood are likely to be more severe.⁴

¹ Healthy Schools. Centers for Disease Control. <https://www.cdc.gov/healthyschools/obesity/facts.htm>. Accessed January 2018.

² Minnesota Department of Health. Minnesota Student Survey 2016. <http://www.health.state.mn.us/divs/chs/surveys/mss/index.html>. Accessed January 2018.

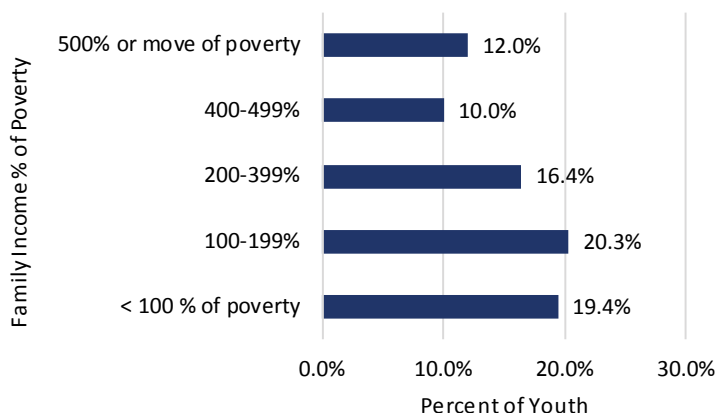
³ Nutrition and Weight Status. Healthy People 2020. <https://www.healthypeople.gov/2020/topics-objectives/topic/nutrition-and-weight-status/objectives>. Accessed September 7, 2017.

⁴ Bass R, Eneli I. Severe childhood obesity: an under-recognized and growing health problem. *Postgraduate Medical Journal*. 2015;91(1081):639-45. DOI:10.1136/postgradmedj-2014-133033.

WHAT RAMSEY COUNTY GOVERNMENT IS DOING

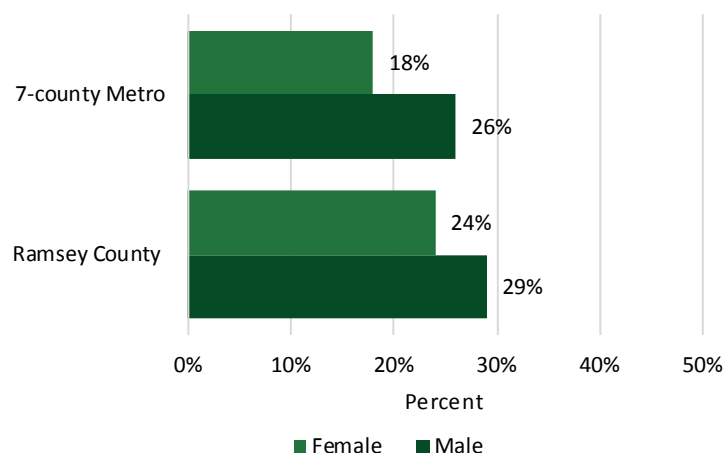
The Statewide Health Improvement Partnership (SHIP) work has become an integral part of Saint Paul- Ramsey County Public Health's efforts to help combat and prevent chronic disease among youth. There are numerous school yard garden programs, farm to school strategies, and smarter lunchroom strategies being implemented by all five county school districts using SHIP funds. Along with addressing healthy eating strategies SHIP also funds active living and active school day initiatives so schools can increase the amount of movement that students receive before, during and after school hours, including expanding Safe Routes to School. Additionally, Ramsey County is becoming a breastfeeding friendly health department, which encourages breastfeeding, which reduces the risk of obesity and diabetes in children. Healthy eating and physical activity are vital to preventing and addressing chronic disease and diabetes. Ramsey County Parks and Recreation offers many programs to get youth and families outside and increasing their activity levels, including hiking, canoeing, skiing and gardening. The Ramsey County Library partners with the Friends of Ramsey County Library each year to offer the "Book It 5K walk/run."

Obesity Among Youth by Federal Poverty Level, U.S., 2013-2016



Source: Nutrition, Physical Activity, and Obesity. Healthy People 2020 Web site.⁵

Overweight or Obese, 9th Graders, 2016



Source: Minnesota Department of Health.

⁵ Nutrition, Physical Activity, and Obesity. Healthy People 2020 Web site. <https://www.healthypeople.gov/2020/leading-health-indicators/2020-lhi-topics/Nutrition-Physical-Activity-and-Obesity/data#NWS-10>. Accessed January 2018.

⁶ Minnesota Department of Health. Minnesota Student Survey 2016. <http://www.health.state.mn.us/divs/chs/mss/>. Accessed January 2018.

Physical Activity - Adults

DESCRIPTION

The benefits of physical activity have been well-documented and include improved cardiorespiratory fitness, muscle strength, flexibility, bone density, as well as reduced risk of depression and non-communicable diseases. People who engage in physical activity have lower rates of high blood pressure, stroke, type 2 diabetes, colon cancer and breast cancer.¹ Physical activity can improve health and quality of life regardless of the presence of disability or disease. Successful approaches that increase opportunity and support behavior change require a combined effort that includes policy, systems and environmental changes. It also requires a multidisciplinary approach incorporating nontraditional partnerships, such as health care and education joining up with transportation, urban planning, environmental health and other fields.²

HOW WE ARE DOING

In 2016 in Minnesota, 17.5 percent of residents did not participate in any physical activity in the past month, while in the Minneapolis – St. Paul – Bloomington statistical area, that rate was 16.1 percent.³ According to a 2014 survey of Ramsey County residents, 19.1 percent did not participate in any leisure time physical activity (such as walking, running, golf, gardening) in the past month. These rates all surpass the Healthy People target of 32.6 percent. At the other end of the continuum, 59.7 percent of Ramsey County adults reported getting 150 minutes or more of moderate physical activity in a week, and 51.2 percent reported getting 75 minutes or more of vigorous exercise. These rates compare to the Six-County Metro survey results of 62.7 percent getting the recommended moderate activity and 51.8 percent getting the recommended vigorous activity.⁴

BENCHMARK INDICATOR

Healthy People 2020: Reduce the proportion of adults who engage in no leisure-time physical activity.

U.S. Target: 32.6 percent⁵

DISPARITIES

Racial/ethnic minorities are, in general, less likely than whites to meet physical activity recommendations.⁵ In Ramsey County, there are disparities by education and income level. Only 59.3 percent of those with high school education are physically active compared to 87 percent of those with bachelor's degrees.⁴

RISK FACTORS

Adults who do not have access to supportive environments (e.g., sidewalks, bike lanes, parks), safe neighborhoods or social support report less exercise. Lack of post-secondary education, low income and no history of physical activity also is correlated with less exercise.⁶

WHAT RAMSEY COUNTY GOVERNMENT IS DOING

The Statewide Health Improvement Partnership (SHIP) work has become an integral part of Saint Paul- Ramsey County Public Health's efforts to increase physical activity opportunities

Information to note

- In Ramsey County, about 60% of adults get the recommended 150 minutes of moderate exercise and about 51% get the recommended 75 minutes of vigorous exercise.
- Adults with less education or lower income are less likely to participate in leisure time physical activity.

Community voice

"Playing a lot of basketball keeps me healthy I also stay healthy in the gym and stay away from drugs."
- Black/African American Male, age 25-34

1259 respondents mentioned the importance of physical activity on overall health. Over two thirds of the respondents mentioned physical exercise as helping them stay healthy.

¹ Physical Activity and Adults. World Health Organization. http://who.int/dietphysicalactivity/factsheet_adults/en/. Accessed May 2018.

² Active Living in Communities Implementation Guide. Minnesota Department of Health. <http://www.health.state.mn.us/healthreform/ship/docs/ship4/ActiveLiving.pdf>. Updated October 2016. Accessed May 2018.

³ BRFSS Prevalence & Trends Data. Centers for Disease Control and Prevention. <https://www.cdc.gov/brfss/brfssprevalence>. Accessed May 2018.

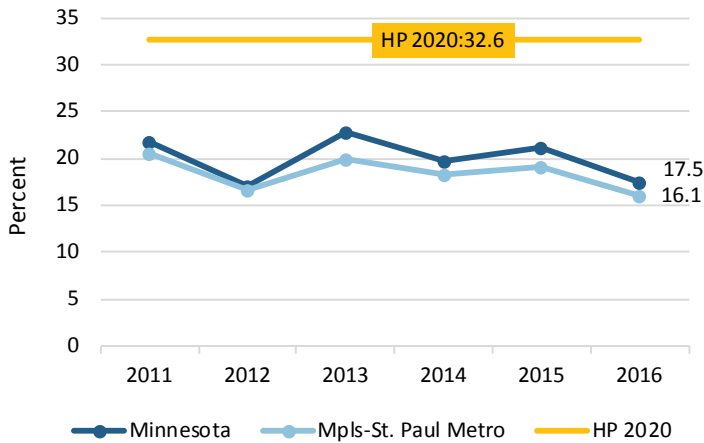
⁴ Saint Paul – Ramsey County Public Health. Metro SHAPE Ramsey County Data Book 2014. <https://www.ramseycounty.us/your-government/open-government/research-data/public-health-data>. Accessed May 2018.

⁵ Physical Activity. HealthyPeople.gov. <https://www.healthypeople.gov/2020/topics-objectives/topic/physical-activity>. Accessed May 2018.

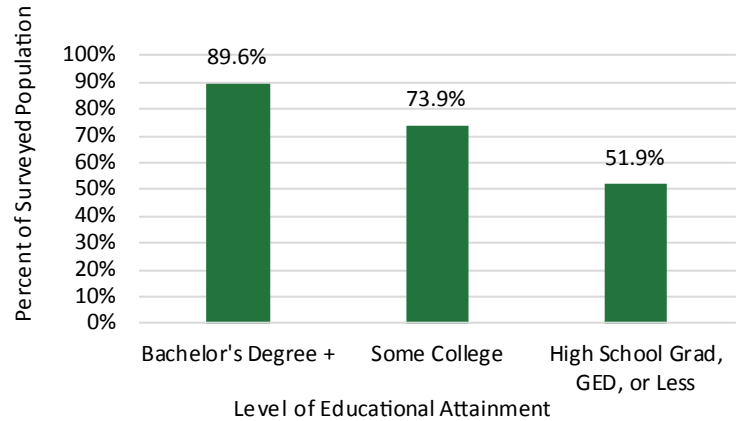
⁶ Li K, Wen M. Racial and ethnic disparities in leisure-time physical activity in California: Patterns and mechanisms. *Race and Social Problems*. 2013; 5(3): 147–156.

in adults. SHIP and Active Living Ramsey Communities have worked to create and support pedestrian and bicycle plans to create more opportunities for physical activity. Ramsey County Parks and Recreation offers many programs to get families outside and increasing their activity levels, including hiking, canoeing, skiing and gardening. The Ramsey County Library partners with the Friends of Ramsey County Library each year to offer the "Book It 5K walk/run"

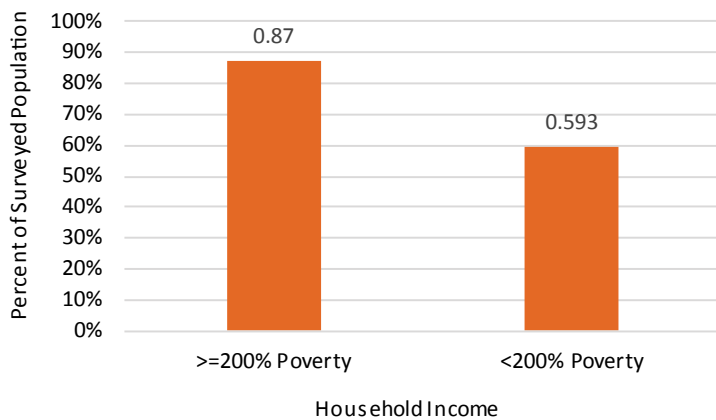
Adults Not Participating in Leisure Time Physical Activity



Adults Participating in Physical Activity (other than job) in Past Month by Education, Ramsey County, 2014



Adults Participating in Physical Activity (other than job) in Past Month by Income, Ramsey County, 2014



⁷ BRFSS Prevalence & Trends Data. Centers for Disease Control and Prevention. <https://www.cdc.gov/brfss/brfssprevalence>. Accessed May 2018.

⁸ Source: Saint Paul - Ramsey County Public Health. Metro SHAPE Ramsey County Data Book 2014. <https://www.ramseycounty.us/your-government/open-government/research-data/public-health-data>. Accessed May 2018.

⁹ Source: Saint Paul - Ramsey County Public Health. Metro SHAPE Ramsey County Data Book 2014. <https://www.ramseycounty.us/your-government/open-government/research-data/public-health-data>. Accessed May 2018.

Physical Activity - Youth

DESCRIPTION

Moderate amounts of physical activity are recommended for everyone. Benefits can be obtained from longer sessions of lower intensity activities (e.g., walking, golf), or shorter sessions of more intense activities (e.g., biking, running). Physical activity can improve bone health, cardiorespiratory and muscle fitness, mental skills and the ability to pay attention. It can also decrease body fat, and reduce symptoms of depression.¹

HOW WE ARE DOING

Participation in physical activity tends to decline as age increases. Nationally, 28.7 percent of youth report meeting the national recommendation of being physically active for 60 or more minutes every day.² In Minnesota, 20 percent of 9th graders and 15 percent of 11th graders meet that recommended activity level. In Ramsey County, 16 percent of 9th graders and 11 percent of 11th graders report being physically active for 60 or more minutes daily. These levels do not meet the Healthy People goal of 31.6 percent. Among 9th graders in Ramsey County, 56 percent had less than five days of physical activity for 60 minutes, compared to 48 percent statewide. When students are young, they are often active in physical education classes at school, but this tapers off dramatically in older grades.³

BENCHMARK INDICATOR

Healthy People 2020: Increase the proportions of adolescents who are physically active for a total of at least 60 minutes per day on seven of the past seven days.

U.S. Target: 31.6 percent

DISPARITIES

There are significant gender disparities related to physical activity. In 2015 nationally, 36 percent of males reported 60 or more minutes of physical activity every day compared to only 17.7 percent of females. There are also racial disparities related to activity. Among American Indian/Alaskan Natives, 31.5 percent (highest level) reported being physically active for 60 or more minutes daily, compared to 17.1 percent (lowest level) of Asians meeting the recommended activity level. Racial/ethnic disparities in physical activity may be partially explained by neighborhood characteristics. For example, having sidewalks or more park space nearby may increase the pleasure or perception of safety, and thus increase the likelihood of participation.⁴

RISK FACTORS

Physical activity habits begin at an early age and are often carried into adulthood. The biggest risk factor for inactivity is a non-supportive environment. There are several ways that physical activity can be promoted among youth. Parents should be role models for active lifestyles as well as provide supportive environments and opportunities for an active lifestyle. Parents should reduce sedentary time in their family (e.g., time spent watching TV, playing video games, surfing the internet). It is also key that physical activities match the interest and enjoyment of the individual.⁵

Information to note

- In Ramsey County, 16% of 9th graders and 11% of 11th graders report being physically active for 60 or more minutes every day which does not meet the Healthy People 2020 target of 31.6%.
- There are significant gender and racial disparities related to physical activity.



Community voice

"Rec centers are not always open."

- Hispanic/ Latino Male, age 10-14

Many children mentioned physical activity as influencing their health and cited limited options for indoor and outdoor activity.

¹ Raspberry CN, Lee SM, Robin L, et al. The association between school-based physical activity, including physical education, and academic performance: a systematic review of the literature. Preventive Medicine. 2011;52:S10-S20. <https://doi.org/10.1016/j.ypmed.2011.01.027>. Accessed May 2018.

² Centers for Disease Control and Prevention. Healthy People.gov. <https://www.healthypeople.gov/2020/topics-objectives>. Accessed May 2018.

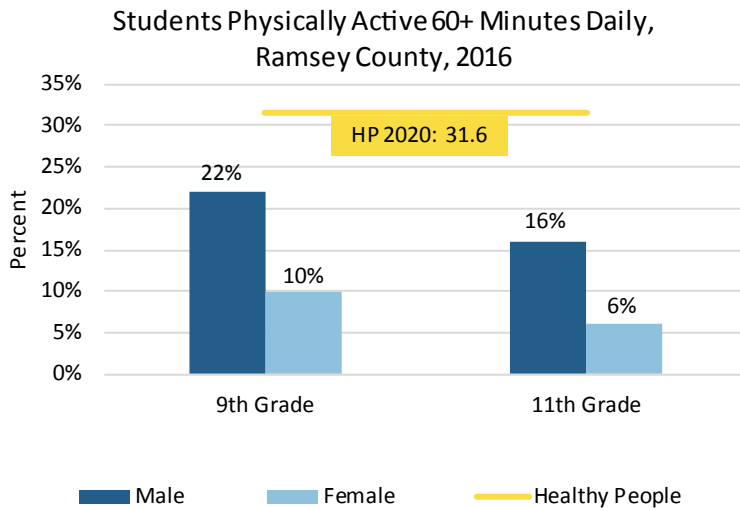
³ Minnesota Department of Health. Minnesota Student Survey 2016. <http://www.health.state.mn.us/divs/chs/mss/>. Accessed May 2018.

⁴ Taylor S, Romley J, Malcolm L, Brown A. Racial/Ethnic Disparities in Likelihood of Physical Activity: The Role of Neighborhood Characteristics. <https://activelivingresearch.org/raciaethnic-disparities-likelihood-physical-activity-role-neighborhood-characteristics>. Presentation at the 2006 Active Living Research Annual Conference. Accessed May 2018.

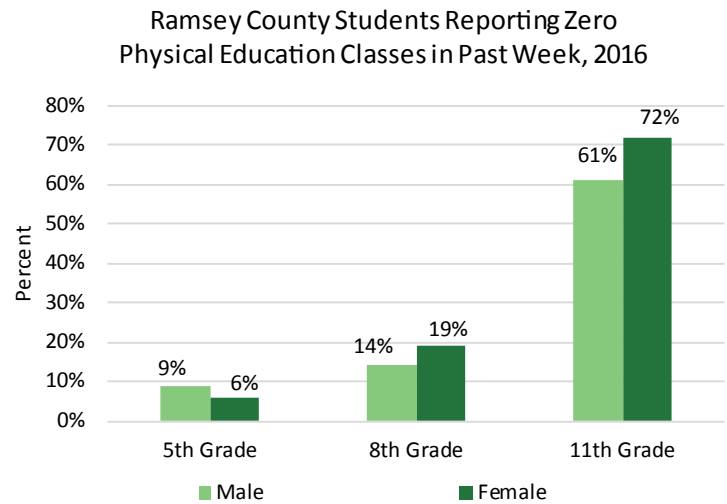
⁵ The AHA's Recommendations for Physical Activity in Children. http://www.heart.org/HEARTORG/HealthyLiving/HealthyKids/ActivitiesforKids/The-AHAs-Recommendations-for-Physical-Activity-in-Children_UCM_304053_Article.jsp#.WwXU-ZVX6Uk. Accessed May 2018.

WHAT RAMSEY COUNTY GOVERNMENT IS DOING

Saint Paul – Ramsey County Public Health, through the Statewide Health Improvement Partnership (SHIP) grant, works extensively with Ramsey County's five school districts to increase physical activity among youth. School partners develop initiatives that increase opportunities for physical activity including: Safe Routes to School promote walking or biking to school, focused programs to engage specific at-risk students in physical activity and working with school districts to provide Active Classroom/Recess trainings to train teachers in how to offer more time for being active during the school day.



Source: Minnesota Student Survey⁶



Source: Minnesota Student Survey.⁶

⁶ Minnesota Department of Health. Minnesota Student Survey 2016. <http://www.health.state.mn.us/divs/chs/mss/>. Accessed May 2018.