

DATA AND TREND ANALYSIS

Chronic Disease



Heart disease is the leading cause of death in the United States. Stroke is the fifth leading cause of death in the United States. Together, heart disease and stroke, along with other cardiovascular disease, are among the most widespread and costly health problems facing the nation today, accounting for approximately \$320 billion in health care expenditures and related expenses annually. The leading controllable risk factors for heart disease and stroke are: high blood pressure; high cholesterol; cigarette smoking; diabetes; unhealthy diet and physical inactivity; being overweight and/or obese.

DESCRIPTION

Alzheimer's disease is the most common form of dementia. Dementia can interfere with a person's daily life because of the loss of brain functions such as thinking, remembering and reasoning. Dementia affects an individual's health, quality of life and ability to live independently. It can reduce a person's ability to manage medications and medical conditions, make financial decisions, drive a car or use appliances and tools safely, avoid physical injury, maintain social relationships, and carry out activities of daily living, like bathing or dressing. Alzheimer's disease is a leading cause of disability in the U.S.¹

HOW ARE WE DOING

Age is a significant factor in developing Alzheimer's; the number of cases steadily increases as people get older. In Ramsey County, Alzheimer's was the fourth leading cause of death with 266 deaths in 2016. Of those deaths, 248 were among residents 75 and older. The age-adjusted death rate from Alzheimer's in Minnesota is 31.8 deaths per 100,000 people compared to the Ramsey County rate of 41.6.²

BENCHMARK INDICATOR

Healthy People 2020: Reduce the proportion of preventable hospitalizations in adults aged 65 years and older with diagnosed Alzheimer's disease and other dementias.
U.S Target: 22.8 percent³

DISPARITIES

More women develop Alzheimer's disease and other dementias. They make up almost two-thirds of Americans with Alzheimer's disease.¹ Older African-American and Hispanic individuals are more likely than whites to have Alzheimer's disease and other dementias. African-Americans often have an earlier age of onset and show greater severity of symptoms.⁴ Because of historical trauma, Native American individuals and families will have more distress over the course of the disease, partially as a result of cultural differences and partially because of their history of being abused within the United States systems.⁵

RISK FACTORS

There are some risk factors for Alzheimer's disease that can't be controlled, like age and genetic profile. Researchers are studying other factors that may make a difference. A nutritious diet, exercise, social engagement, and mentally stimulating pursuits may help lower the risk of cognitive decline and Alzheimer's disease. Researchers are also investigating possible connections between cognitive decline and cardiovascular disease, high blood pressure, diabetes and obesity.⁶ People with Down syndrome have an increased risk of developing Alzheimer's. For people with Down syndrome, about 30 percent of those over 50 have Alzheimer's dementia.⁷

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Information to note

- Older African-American and Hispanic people are more likely than white people to have Alzheimer's disease and other dementias.
- Women make up almost two-thirds of Americans with Alzheimer's disease.

¹ 2017 Alzheimer's Disease Facts and Figures. Alzheimer's Association Web site. https://www.alz.org/documents_custom/2017-facts-and-figures.pdf. Accessed February 2018.

² County Health Tables. <http://www.health.state.mn.us/divs/chs/countytables/profiles2017/index.html>. Accessed February 2018.

³ Dementias, Including Alzheimer's Disease. HealthyPeople.gov Web site. <https://www.healthypeople.gov/2020/topics-objectives/topic/dementias-including-alzheimers-disease/objectives>. Accessed February 2018.

⁴ Manly, J.J., Mayeux, R. (2004). Ethnic Differences in dementia and Alzheimer's disease. In Anderson N.A., Bulatao, R.A., Cohen, B. (eds). Critical perspectives on racial and ethnic differentials in health in later life. Washington, D.C.: National Academies Press; 2008:95-141.

⁵ Native Americans and Dementia: Dealing with Emotional Issues Among Caregivers. Wyoming Geriatric Education Center Web Site. <https://www.slideserve.com/ely/native-americans-and-dementia-dealing-with-emotional-issues-among-caregivers>. Accessed February 2018.

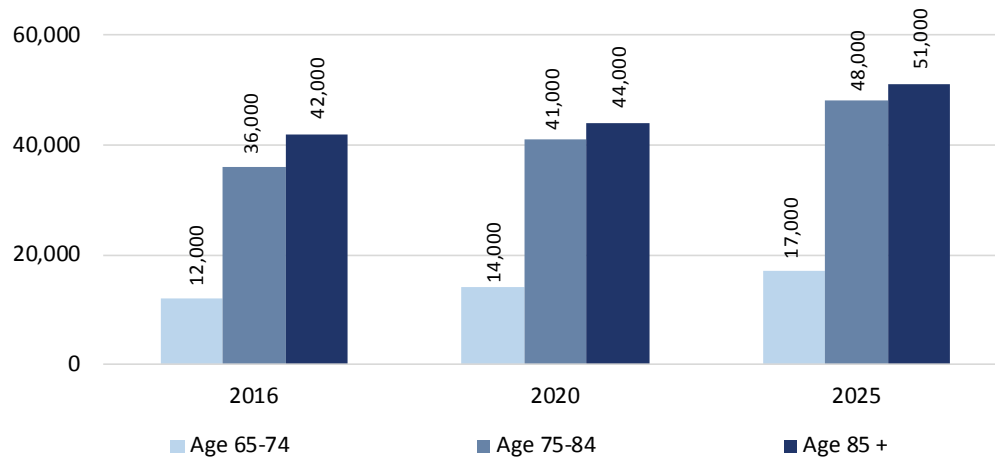
⁶ About Alzheimer's Disease: Risk Factors and Prevention. National Institute on Aging Web site. <https://www.nia.nih.gov/alzheimers/topics/risk-factors-prevention>. Accessed February 2018.

⁷ Down Syndrome and Alzheimer's Disease. Alzheimer's Association Web site. <http://www.alz.org/dementia/down-syndrome-alzheimers-symptoms.asp>. Accessed February 2018

WHAT RAMSEY COUNTY GOVERNMENT IS DOING

Saint Paul - Ramsey County Public Health provides data monitoring and reporting for this topic in order to better understand the overall health and current conditions in the community. The information may help inform community partners, policy makers or county program leadership.

Future Estimates of Alzheimer's by Age Group, Minnesota



Source: Alzheimer's Association, 2017.⁸

⁸ Alzheimer's Association. (2017). Alzheimer's Statistics Minnesota. http://www.alz.org/documents_custom/facts_2016/statesheet_minnesota.pdf. Accessed February 2018.

DESCRIPTION

Arthritis is an umbrella term for more than 100 diseases and conditions which affect the joints, the tissue surrounding the joint, and connective tissue. Typical symptoms include pain and stiffness in and around one or more of the joints and some rheumatic conditions involve the immune systems and other internal organs. As the population ages, the prevalence of arthritis is expected to increase. Currently an estimated 54.4 million adults have arthritis in the U.S.¹

HOW WE ARE DOING

In Minnesota, 22 percent of adults have arthritis: 25 percent of women and 18 percent of men.¹ In a 2014 survey, 20 percent of Ramsey County residents 25 and older reported having a diagnosis of arthritis or rheumatism. Ramsey County females were more likely than males to report the diagnosis. The percentage of residents with arthritis rises with age: 38 percent of those 55 and older and 50 percent of those 65 and older reported having arthritis or rheumatism. As levels of income and educational attainment rise, the percentage of those reporting arthritis or rheumatism diagnosis lowered.²

DISPARITIES

There are many disparities related to arthritis. Arthritis is more common in women, with 25 percent of women having a diagnosis of arthritis compared to 20 percent of men in Minnesota.¹ Adults 18 and older who are overweight or obese report doctor-diagnosed arthritis more often than adults with a lower body mass index (BMI).³ Among Metro area adults surveyed, about 33 percent of those with only a high school education reported a diagnosis of arthritis compared to 13 percent of those with bachelor's degrees (gap of 20 percentage points). In addition, the rate of arthritis among those with lower household income was 59 percent, compared to 46 percent among those with higher incomes (gap of 13 percentage points).⁴

RISK FACTORS

Some risk factors for arthritis are considered modifiable. This includes excess weight contributing to onset and progression of knee osteoarthritis, having a joint injury and certain infections that can infect the joints. Additionally, certain occupations that involve repetitive knee bending and/or squatting are associated with knee osteoarthritis. Other risk factors are considered non-modifiable, such as age, gender and genetics. Certain genes are associated with particular types of arthritis, such as rheumatoid arthritis, systemic lupus erythematosus and ankylosing spondylitis.

WHAT RAMSEY COUNTY GOVERNMENT IS DOING

Arthritis can be a debilitating condition that affects a person's ability to live safely on their own. Ramsey County Social Services administers the process through which Ramsey County residents may obtain a MnCHOICES assessment, which allows for anyone of any age with a disability to access the support services needed to stay in their homes. MnCHOICES helps make decisions about long-term services that help individuals thrive in their communities. Using complete applicant information MnCHOICES determines if there are publicly-funded programs and services available, and replaces the need for multiple assessments. Saint Paul – Ramsey County Public Health maintains a disease surveillance role, monitoring the prevalence of arthritis in Ramsey County.

Information to note

- In 2014, 20% of Ramsey County residents 25 and older reported being told by a health professional that they had arthritis or rheumatism.
- In a 2014 six county metro survey, there was a higher prevalence of arthritis among these lower incomes and education.

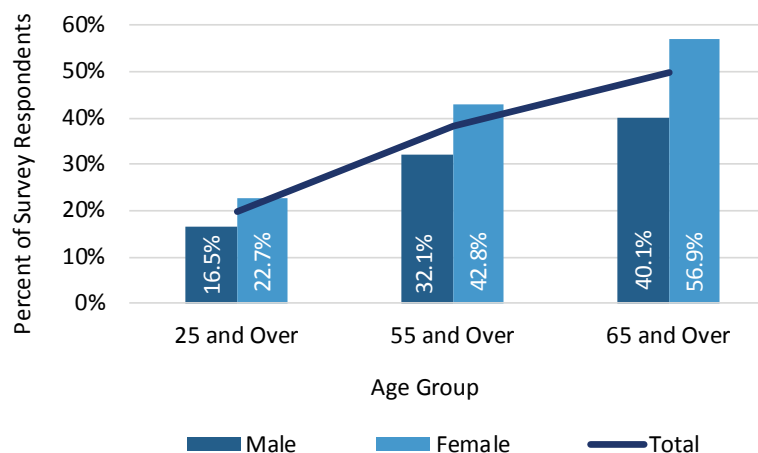
¹ Arthritis. Centers for Disease Control and Prevention. <https://www.cdc.gov/arthritis/basics/index.html>. Accessed August 20, 2017.

² 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 7, 2018.

³ Arthritis-Related Statistics. Centers for Disease Control and Prevention. https://www.cdc.gov/arthritis/data_statistics/arthritis-related-stats.htm. Accessed November 3, 2017.

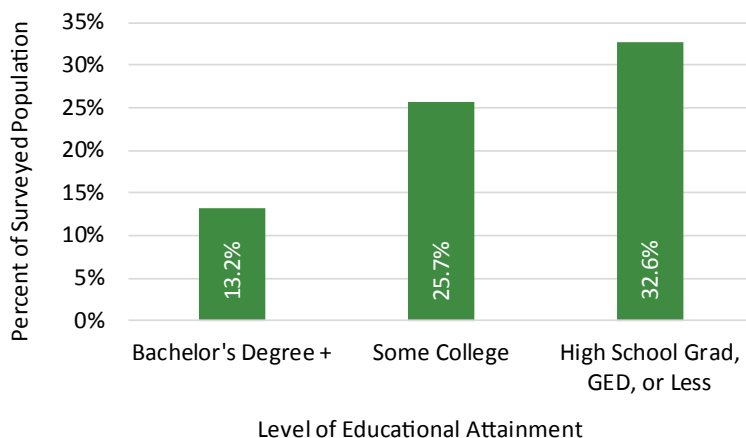
⁴ Metro Public Health Analyst Network. Metro SHAPE Six County Data Book 2014. <https://www.ramseycounty.us/your-government/open-government/research-data/public-health-data>. Accessed April 2018.

Individuals With Arthritis, Ramsey County, 2014



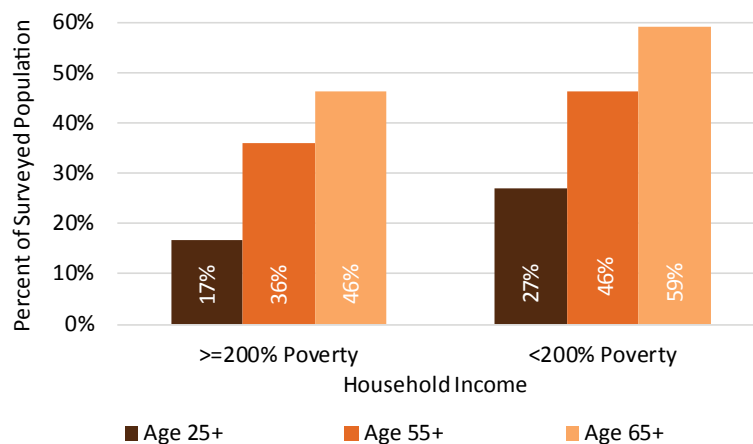
Source: Metro SHAPE Ramsey County Data Book 2014.⁵

Arthritis among Individuals 25 Years or Older by Education, Six-County Metro, 2014



Source: Metro SHAPE Six County Data Book 2014.⁶

Arthritis among Individuals 25 Years or Older by Household Income, Six-County Metro, 2014



Source: Metro SHAPE Six County Data Book 2014.⁶

⁵ 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 7, 2018.

⁶ Metro Public Health Analyst Network. Metro SHAPE Six County Data Book 2014. <https://www.ramseycounty.us/your-government/open-government/research-data/public-health-data>. Accessed April 2018.

DESCRIPTION

Asthma is a chronic disease of the airways. It involves frequent episodes, or attacks, where the airways in the lungs swell and shrink. During the attack less air gets in and out of the lungs. In addition, more mucous is created by the body, which further clogs the airways.¹ “Asthma Triggers” is a term that refers to substances, activities, or environmental factors that can bring on an asthma attack. Asthma triggers can be found inside or outside the home. Some common triggers are tobacco smoke, household chemicals, pet dander, roaches, dust mites, mold, fragrances and environmental pollution.

HOW WE ARE DOING

About 7.5 percent of Minnesota adults and 10.6 percent of middle school and high school students currently have asthma.² An average of 16.5 percent of Ramsey County 5th, 8th, 9th and 11th graders self-reported that a doctor or nurse had told them they have asthma.³ A primary indicator of serious exposures to asthma triggers is found in the number of asthma-related hospitalizations and emergency department visits (which are not admitted to the hospital). From 2012-2016, Ramsey County had an average of 3,069 residents each year who visited an emergency department (ED) or were hospitalized for asthma.⁴ During 2013-2015, the three-year age-adjusted hospitalization rate for Minnesota is 5.6 per 10,000, compared to a higher rate among Ramsey County residents of 7.7. These overall rates meet the Healthy People goal, however the childhood rates tell a different story. Among Ramsey County youth ages 5 to 19, the asthma hospitalization rate is much higher at 15.4 per 10,000. Emergency department visits among all Ramsey County residents was 60.1 per 10,000 residents, which was higher than the Minnesota rate of 39.1.²

BENCHMARK INDICATOR

HP 2020: Reduce hospitalizations for asthma.

U.S. Target: 8.7 per 10,000 population.⁵

DISPARITIES

Asthma disproportionately impacts children, females, African-Americans, and people with low incomes.⁶ Across Minnesota, the likelihood of having asthma differs by race/ethnicity. There are significant differences in the rates of hospitalizations and emergency department visits for asthma by region of the state. Asthma hospitalization rates for children living in the Twin Cities metropolitan area are 67% higher than for children living in Greater Minnesota. Rates of ED visits for asthma for children living in the Twin Cities metro area are nearly twice as high as for children living in Greater Minnesota. In certain ZIP codes in metro area, hospitalization rates for asthma among children can be four times higher than the statewide rate.⁶

RISK FACTORS

Several risk factors affect the prevalence of asthma triggers. The condition of the home environment is the most important. Poor in-home sanitation is one of the leading risk factors to developing asthma. Living in an urban area increases exposure to higher levels of ozone.⁷ Additionally, proximity to highways will negatively affect the surrounding air

Information to note

- Ramsey County currently meets the Healthy People 2020 target for asthma hospitalization.
- Common asthma triggers in the home are tobacco smoke, household chemicals, pet dander, roaches, dust mites, mold, and fragrances.
- There is a higher prevalence of asthma among black youth and adults.

¹ Learn how to control Asthma. Centers for Disease Control and Prevention. <https://www.cdc.gov/asthma/faqs.htm>. Accessed August 20, 2017.

² Minnesota Department of Health. Minnesota Public Health Data Access. https://data.web.health.state.mn.us/web/mndata/asthma_query. Accessed June 1, 2018.

³ Minnesota Department of Health. Minnesota Student Survey. Saint Paul – Ramsey County Public Health data set.

⁴ Minnesota Hospital Association. Saint Paul – Ramsey County Public Health data set.

⁵ Centers for Disease Control and Prevention. Healthy People 2020. <https://www.healthypeople.gov/2020/topics-objectives>. Accessed March 2018.

⁶ Minnesota Department of Health. Asthma program quick facts – Asthma in Minnesota. <http://www.health.state.mn.us/asthma/>. Accessed June 1, 2018.

⁷ Allergens and Allergic Asthma. Asthma and Allergy Foundation of America. <http://www.aafa.org/page/allergic-asthma.aspx>. Accessed April 27, 2018.

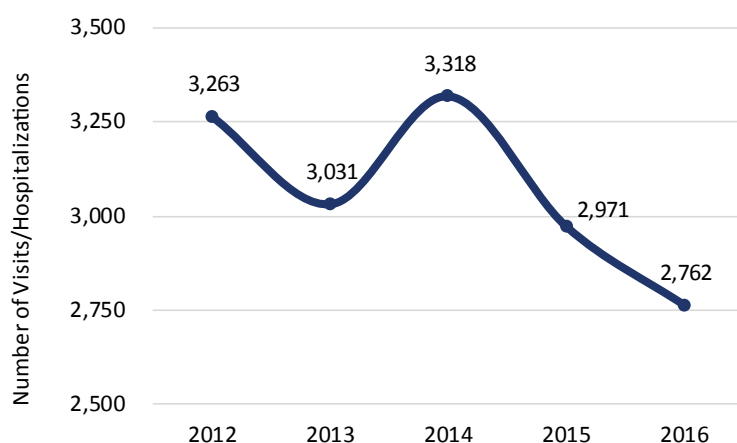
quality.⁸ Respiratory complications-such as pneumonia, COPD, and infections are other risk factors.

WHAT RAMSEY COUNTY GOVERNMENT IS DOING

Ramsey County partners with local hospitals, clinics, schools, and community development nonprofits to connect with households where children are affected by asthma. Saint Paul – Ramsey County’s Healthy Homes intervention program helps children receive individualized health education and also supplies the family with products to help create a cleaner home environment. Environmental health inspectors and public health nurses identify in-home asthma triggers that can cause or exacerbate asthma symptoms. During this assessment, families are provided patient-specific asthma education, strategies to effectively manage their asthma, and products to minimize triggers.

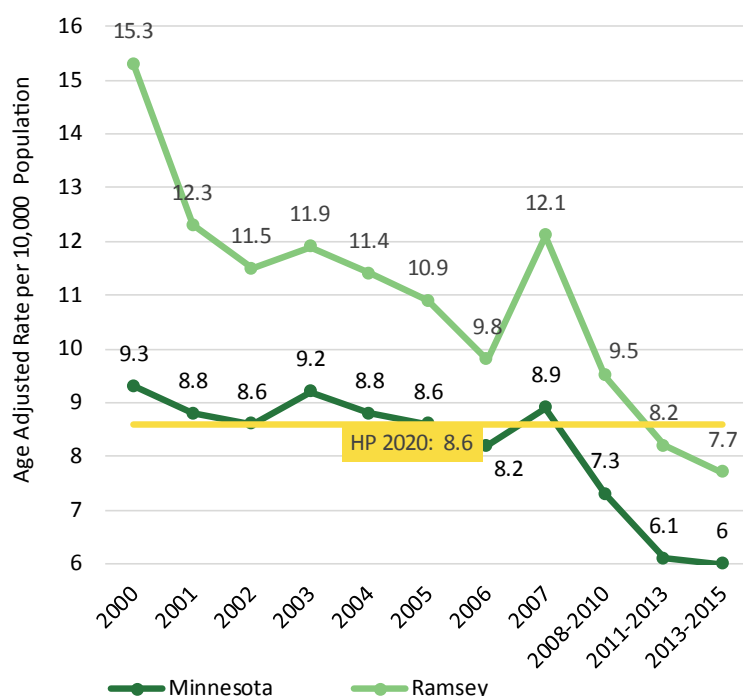
The Healthy Homes program targets areas in the county that have aging housing stock, have lower income residents, and have residents who are at highest risk for asthma related hospitalizations. In 6-month follow up meetings, families enrolled in the program report less frequent use of prednisone or nebulizers and less school days missed due to asthma. They also reduced (or all together eliminated) any asthma-related hospitalizations or ED visits.

Asthma Emergency Department Visits or Hospitalizations, Ramsey County Residents, 2012-2016



Source: MN Hospital Association. Saint Paul - Ramsey County Public Health data set.

Asthma Hospitalizations Ramsey County and Minnesota, 2000 - 2015



Source: Minnesota Department of Health.⁹

⁸ Benson L. In the Twin Cities, asthma hospitalization rate highest along I-94, here's why. MPR news 2014. <https://www.mprnews.org/story/2014/07/08/for-some-asthma-patients-smoking-housing-conditions-and-uneven-insurance-are-a-deadly-mix>. Published July 8, 2014. Accessed June 2018.

⁹ Source: MDH MN Public Health Data Access. https://data.web.health.state.mn.us/web/mndata/asthma_hosp. Accessed June 1, 2018.

DESCRIPTION

Cancer is a group of diseases that are characterized by uncontrolled growth and spread of abnormal cells. These cells can form a tumor which may invade or destroy normal tissue. Cancer is classified by the body part in which it originates, its appearance and laboratory tests. Approximately 75 percent of cancers deaths are among people 65 and older. The five leading causes of cancer death in Minnesota are: lung/bronchus, colon/rectum, breast and prostate, which all together account for 45 percent of all cancer deaths.¹

HOW ARE WE DOING

The death rate from cancer has been slowly declining for the last two decades; however, cancer is still the leading cause of death since 2000. Each year in the state there are an estimated 26,000 newly diagnosed cases; meaning approximately one out of every two residents will be diagnosed in their lifetime.¹ In Ramsey County between 2010 and 2014, there were 12,633 incidences of cancer. Within this, 1,983 were diagnosed breast cancer, 1,471 were lung cancer, 1,005 cases of colorectal cancer and 748 were melanoma.² In 2016, there were 9,845 Minnesota residents and 877 Ramsey County residents who lost their life to cancer, the leading cause of death.³ In 2016, the overall age adjusted cancer mortality for Ramsey County is 145.3 which is below the national benchmark of 161.4 per 100,000 people.⁴

BENCHMARK INDICATOR

Healthy People 2020: Reduce the overall cancer death rate.
U.S. Target: 161.4 per 100,000 population.

DISPARITIES

- Statewide during 2008-2012, the overall cancer mortality rates were lowest among Asian/Pacific Islander and Hispanic populations, higher among non-Hispanic white and African-American populations, and highest among American Indian/Alaska Native populations.¹
- Between 2004 and 2013 in Minnesota, American Indian males had the highest rates of all cancers 648.1 per 100,000 people compared to a rate of 475.8 among all males.²
- For men, the chance of getting cancer at some point is about 1 in 2, whereas for women the chances are about 2 in 5. In 2013, the rate among females was 421.3 per 100,000 compared to the male rate of 475.8.³
- In Minnesota in 2012, 8.3 percent of cancer cases and 8.2 percent of cancer deaths in males were due to colon and rectum cancer.⁴
- Between 2008 and 2012 in Ramsey County, there were 195 new colon and rectum cancer cases, and 68 deaths each year.⁴

RISK FACTORS

About one-third of cancer deaths are related to poor diet, physical inactivity and being overweight. Another 30 percent of all cancer deaths are caused by smoking and tobacco use.¹

WHAT RAMSEY COUNTY GOVERNMENT IS DOING

Saint Paul – Ramsey County Public Health provides some clinical services focused on

Information to note

- In Ramsey County between 2010 - 2014, there were 12,633 incidences of cancer.
- In 2016, the overall age adjusted cancer mortality for Ramsey County is 145.3 which is below the national benchmark of 161.4 per 100,000 people.

¹ Minnesota Cancer Facts & figures 2015. Minnesota Department of Health Web Site. <http://www.health.state.mn.us/divs/healthimprovement/data/reports/cancerfactsfigures.html>. Accessed October 3, 2017.

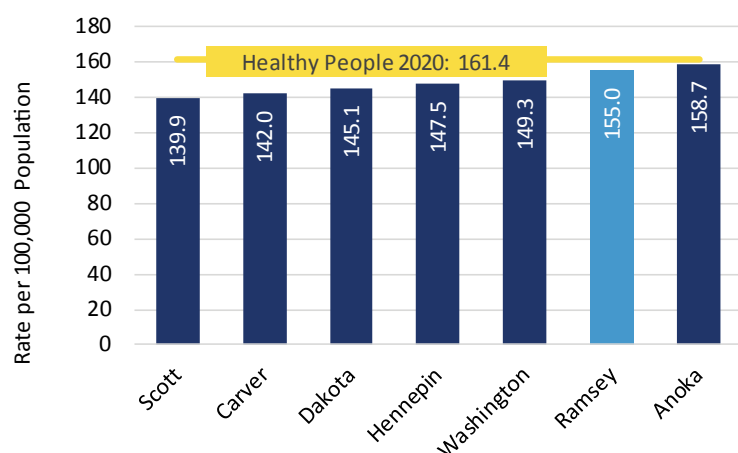
² Minnesota Cancer Facts & figures 2015. Minnesota Department of Health Web Site. <http://www.health.state.mn.us/divs/healthimprovement/data/reports/cancerfactsfigures.html>. Accessed October 3, 2017.

³ Leading Cancer Cases and Deaths, 2014. Centers for Disease Control and Prevention Web Site. <https://nccd.cdc.gov/USCSDDataViz/rdPage.aspx>. Accessed October 3, 2017.

⁴ Minnesota Cancer Facts & Figures 2015. Minnesota Department of Health Web site. <http://www.health.state.mn.us/divs/healthimprovement/content/documents/CancerFandF.pdf>. Accessed January 10, 2018.

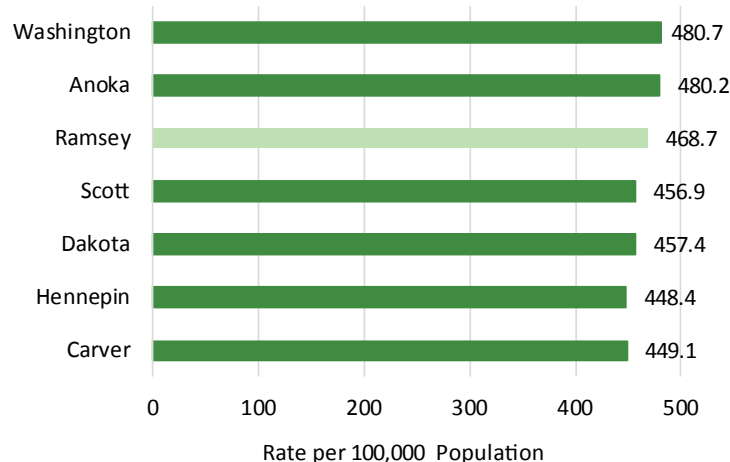
preventing and detecting cancer including screening for cervical cancer and breast cancer, and promoting the use of condoms which may help to prevent spread of certain STIs which may lead to cancer. Saint Paul – Ramsey County Public Health maintains a disease surveillance role, monitoring cancer rates in Ramsey County. Additionally, Ramsey County provides funding to five Ramsey County community clinics to help off-set the cost of services, including cancer prevention and detection services, provided to uninsured and underinsured clients.

Cancer Mortality, 2012-2016



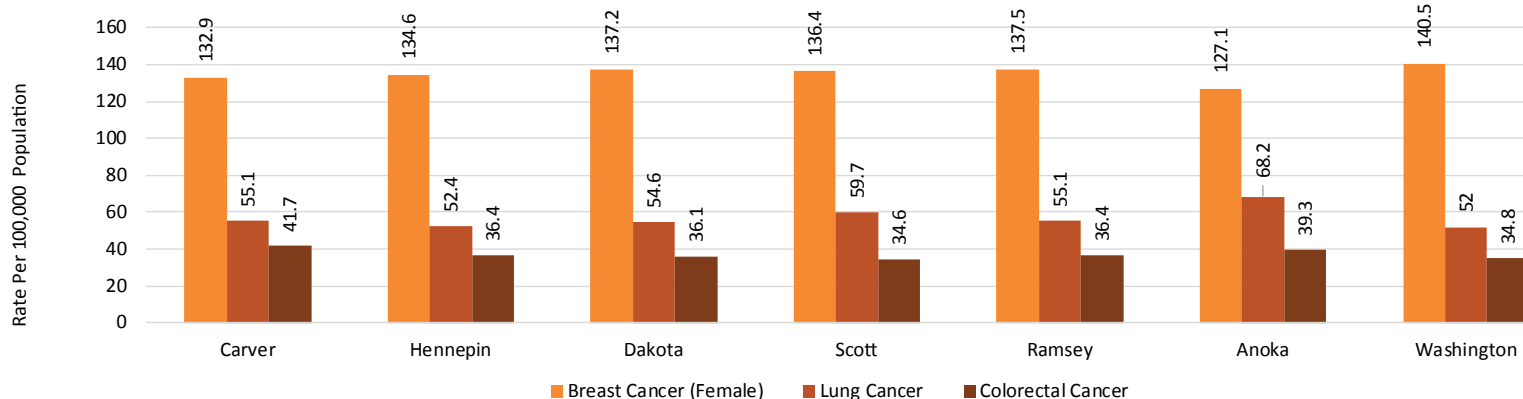
Source: Minnesota County Health Tables.⁵

Cancer Incidence, 2011-2015



Source: MN Public Health Data Access. Minnesota Department of Health Web Site.⁶

Cancer Incidence for Lung, Colorectal, and Breast Cancers, 2011-2015



Source: MN Public Health Data Access. Minnesota Department of Health Web Site.⁷

⁵ Minnesota County Health Tables. Minnesota Department of Health Web Site. <http://www.health.state.mn.us/divs/chs/countytables/>. Accessed October 3, 2017.

⁶ MN Public Health Data Access. Minnesota Department of Health Web Site. <https://apps.health.state.mn.us/mndata/webmap/lungcancer.html>. Accessed October 3, 2017.

⁷ MN Public Health Data Access. Minnesota Department of Health Web Site. <https://apps.health.state.mn.us/mndata/webmap/lungcancer.html>. Accessed May 15, 2018.

DESCRIPTION

Cholesterol is a waxy, fat-like substance that is found in all cells of the body. It is used in the body to make hormones, vitamin D, and substances that aid in digestion. The human body makes all the cholesterol it needs, but diet also contributes to cholesterol. High blood cholesterol is a condition in which there is too much cholesterol in the blood. By itself, the condition usually has no signs or symptoms. Thus, many people don't know that their cholesterol levels are too high. People who have high blood cholesterol are at higher risk for heart disease and stroke.¹

HOW ARE WE DOING

Nationally, about one in three American adults has high cholesterol. In Minnesota, about 28.1 percent of residents have high cholesterol. In 2014, 29 percent of Ramsey County adults surveyed had been diagnosed with high cholesterol at some point in their lives. This is 15.5 percentage points above the national goal of 13.5 percent.² The aging process slows the ability of the blood to clear cholesterol from the blood, so cholesterol levels tend to increase with age. Among respondents in the six-county metro area, the age group of 65 to 75 years had the highest rate of high cholesterol diagnoses at 54 percent.³

BENCHMARK INDICATOR

Healthy People 2020: Reduce the proportion of adults aged 20 years and older with total blood cholesterol levels of 240 mg/dL or greater.

U.S. Target: 13.5 percent of adults.⁴

DISPARITIES

Nationally, higher rates of high cholesterol are seen among Hispanic males and non-Hispanic white women.⁵ Populations with lower education have higher rates of high cholesterol. Among the Metro population residents surveyed, 40 percent of those having a high school education had a diagnosis of high blood pressure compared to 27 percent of those with a bachelor's degree.⁶

RISK FACTORS

People with a family history of high cholesterol are at increased risk for the condition. Factors that can help keep cholesterol levels in a healthy range include a healthy diet, active lifestyle, not smoking and limiting alcohol.

WHAT RAMSEY COUNTY IS DOING

Saint Paul - Ramsey County Public Health provides data monitoring and reporting for this topic in order to better understand the overall health and current conditions in the community. The information may help inform community partners, policy makers or county program leadership.

Information to note

- The highest rates of hypertension are found in people 65 - 75 years old.
- There's a 13 percentage point education disparity gap for high cholesterol, with higher rates among those having high school education compared to those having a bachelor's degree.

¹What is Cholesterol? National Heart, Lung, and Blood Institute Web site. <https://www.nhlbi.nih.gov/health/health-topics/topics/hbc/>. Accessed January 2018

²Saint 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.

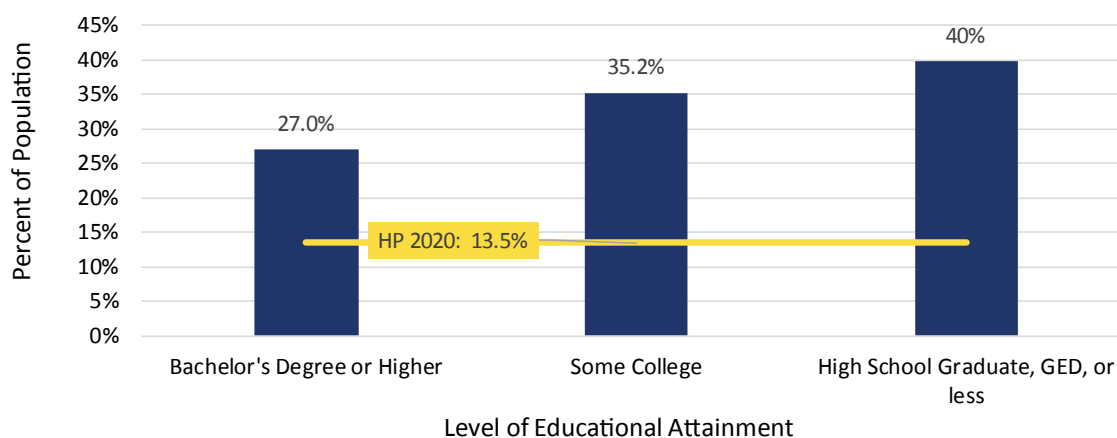
³Metro Public Health Analyst Network. Metro SHAPE Six County Data Book. 2014. <https://www.ramseycounty.us/your-government/open-government/research-data/public-health-data>. Accessed January 2018.

⁴Centers for Disease Control and Prevention. Healthy People 2020. <https://www.healthypeople.gov/2020/topics-objectives>. Accessed January 2018.

⁵Family History and Other Characteristics that Increase Risk for High Cholesterol. Centers for Disease Control and Prevention Web site. <https://www.cdc.gov/cholesterol/facts.htm>. Accessed January 2018.

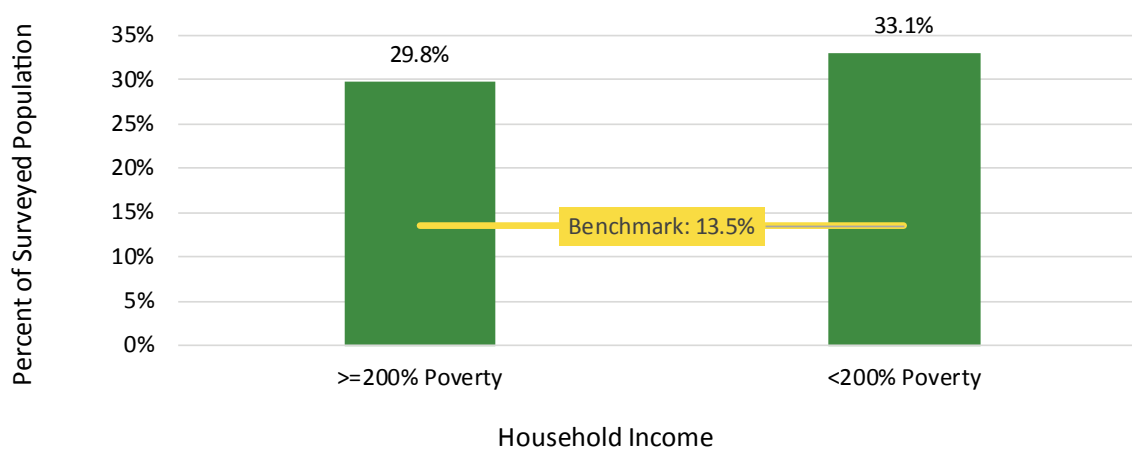
⁶Metro Public Health Analyst Network. Metro SHAPE Six County Data Book. 2014. <https://www.ramseycounty.us/your-government/open-government/research-data/public-health-data>. Accessed January 2018.

High Cholesterol Diagnosis, Six-County Metro, 2014



Source: Metro Public Health Analyst Network.⁸

High Cholesterol Diagnosis, Six-County Metro, 2014



Source: Metro Public Health Analyst Network.⁹

⁸Source: Metro Public Health Analyst Network. Metro SHAPE Six County Data Book. 2014. <https://www.ramseycounty.us/your-government/open-government/research-data/public-health-data>. Accessed July 17, 2017.

⁹ Source: Metro Public Health Analyst Network. Metro SHAPE Six County Data Book 2014. <https://www.ramseycounty.us/your-government/open-government/research-data/public-health-data>. Accessed January 2018.

DESCRIPTION

Chronic kidney disease, also called chronic kidney failure, describes the gradual loss of kidney function, and is the ninth leading cause of death in the United States. Kidneys filter wastes and excess fluids from the blood, which are then excreted in urine. When chronic kidney disease reaches an advanced stage, dangerous levels of fluid, electrolytes and wastes can build up in the body.¹ Nationally, about half of all cases of kidney disease are diagnosed in stages three or four, the more serious stages.²

HOW ARE WE DOING

About 14 percent, or one in seven Americans are estimated to have chronic kidney disease.¹ In 2012, the Minnesota rate for women was 12.9 compared to 13.1 for men.³ The death rate due to kidney disease in Minnesota was 10.5 per 100,000 people in 2011-2015, which compares to the Ramsey County rate of 12.4.⁴ The average cost of medical care for a person with chronic kidney disease in 2012 was \$36,333 in Ramsey County, the highest in the metro area.³ Among Minnesota Medicare enrollees, 1,749 were diagnosed with chronic kidney disease in 2016. In addition, there were 3,406 patients receiving dialysis, 12,253 people with a kidney transplant, and 2,083 on the transplant waitlist. In the same year, 146 patients died waiting for a kidney transplant.⁵

BENCHMARK INDICATOR

Healthy People 2020: Reduce the proportion of the population with chronic kidney disease.

U.S. Target: 13.3 percent.⁶

DISPARITIES

Nationally from 2007 to 2012, the rate of chronic kidney disease among the African-Americans was 17.3 percent; 2.7 percent higher than the total population.⁷ Females have a higher rate of chronic kidney disease than males.

RISK FACTORS

Factors that may increase risk of chronic kidney disease include: diabetes, high blood pressure, cardiovascular disease, smoking, obesity, family history of condition, abnormal kidney structure and older age.⁸

WHAT RAMSEY COUNTY GOVERNMENT IS DOING

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Information to note

- During 2011-2015, Ramsey County's death rate for kidney disease was 12.4 per 100,000 people, higher than the state rate of 10.5.⁴

¹ Chronic Kidney Disease – Overview. Mayo Clinic Web site. <http://www.mayoclinic.org/diseases-conditions/chronic-kidney-disease/home/ovc-20207456>. Accessed August 28, 2017.

² About Chronic Kidney Disease. National Kidney Foundation Web site. <https://www.kidney.org/atoz/content/about-chronic-kidney-disease>. Accessed October 30, 2017.

³ Chronic Conditions in Minnesota: New Estimates of Prevalence, Cost and Geographic Variation for Insured Minnesotans, 2012. Minnesota Department of Health Web site.

⁴ Minnesota County Health Tables. Minnesota Department of Health Web site. <http://www.health.state.mn.us/divs/chs/countyttables/profiles2016/index.html>. Accessed October 30, 2017.

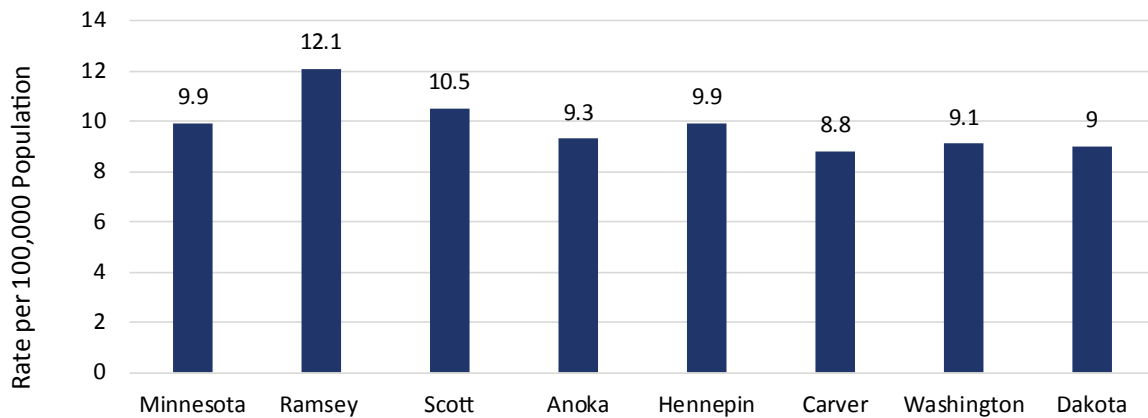
⁵ Chronic Kidney Disease. National Kidney Foundation Web site. <https://www.kidney.org/sites/default/files/AdvocacyFactSheet-Minnesota.pdf>. Accessed October 30, 2017.

⁶ Centers for Disease Control and Prevention. Healthy People 2020. <https://www.healthypeople.gov/2020/topics-objectives>. Accessed January 2018.

⁷ Chronic Kidney Disease. Healthy People 2020 Web site. [https://www.healthypeople.gov/2020/data-search/Search-the-Data#objid=4076](https://www.healthypeople.gov/2020/data-search/Search-the-Data#objid=4076;). Accessed August 28, 2017.

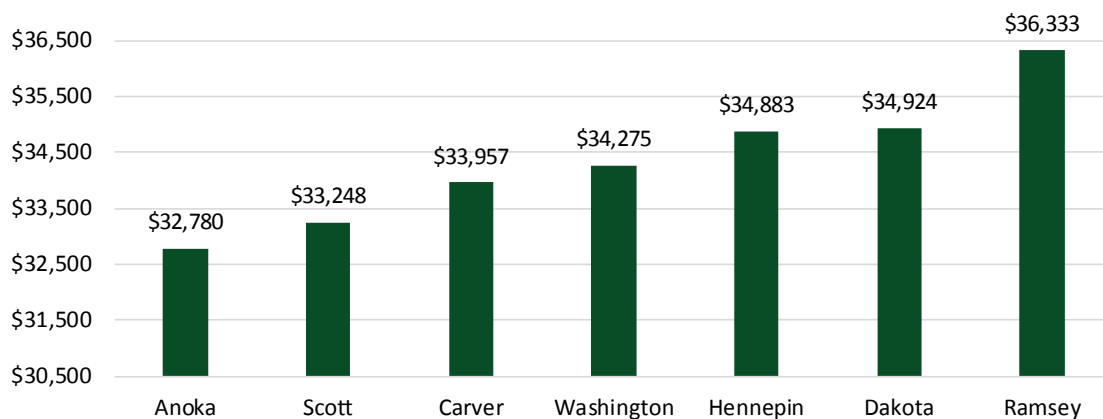
⁸ Chronic Kidney Disease. Mayo Clinic Web site. <http://www.mayoclinic.org/diseases-conditions/chronic-kidney-disease/symptoms-causes/dxc-20207466>. Accessed August 28, 2017.

Kidney Disease Deaths, 2012 - 2016



Source: Minnesota Department of Health Web site.⁹

Annual Health Care Cost per Person with Chronic Kidney Disease, 2012



Source: Chronic Conditions in Minnesota.¹⁰

⁹ Source: Minnesota County Health Tables. Minnesota Department of Health Web site. <http://www.health.state.mn.us/divs/chs/countytables/profiles2016/index.html>. Accessed October 30, 2017.

¹⁰ Source: Chronic Conditions in Minnesota: New Estimates of Prevalence, Cost and Geographic Variation for Insured Minnesotans, 2012. Minnesota Department of Health Web site. http://www.health.state.mn.us/divs/hpsc/hep/publications/costs/20160127_chronicconditions.pdf. Accessed August 30, 2017

Chronic Obstructive Pulmonary Disease

DESCRIPTION

Chronic Obstructive Pulmonary Disease (COPD) is an umbrella term used to describe progressive lung diseases such as emphysema and chronic bronchitis. This disease is characterized by chronic cough, wheezing, fatigue, respiratory infections, excess mucus and increasing breathlessness. The prevalence of COPD rises with age and affects an estimated 30 million individuals in the U.S. Roughly half the people who have COPD have not been diagnosed. Early screening can identify COPD before major loss of lung function occurs.¹

HOW ARE WE DOING

Among Minnesota males, death rates from COPD are 40 per 100,000 people compared to the lower rate among females of 30.9. However, larger numbers of women die of COPD because there are more women in older age groups. There is a lower prevalence of COPD in Minnesota than there is in the U.S. In 2014, about 4.4 percent of Minnesotans reported having COPD, compared with 6.4 percent nationally. During 2012- 2014, the rate for COPD related hospitalizations in Ramsey County, was 13.3 per 10,000 residents over age 25. This was the third highest rate in the seven-county metro area, behind Anoka and Scott County.² A recent Minnesota Department of Health report found that Minnesota spent \$1.9 billion or \$31,100 per person on COPD care in 2012. This accounted for 7.1 percent of all health care spending that year. The costs and suffering associated with this disease are largely preventable.³

BENCHMARK INDICATOR

Healthy People 2020: Reduce deaths from chronic obstructive pulmonary disease in adults aged 45 and over.

U.S. Target: 102.6 deaths per 100,000 population.

Healthy People 2020: Reduce the number of hospitalizations for COPD.

U.S. Target: 50.1 per 10,000 population.⁴

DISPARITIES

The prevalence of COPD is higher in males and low-income populations. COPD is a progressive disease so the prevalence of COPD increases with age, with hospitalization rates highest among adults over 65. Death rates from COPD are highest among American Indians, followed by white, African-American, Asian and Hispanic populations.

RISK FACTORS

Common Risk Factors for developing COPD:¹ Smoking is the leading cause of COPD. About 80 percent of people who have COPD are former or current smokers. COPD can also develop in those who have long-term contact with harmful pollutants, either in the workplace, or home. This includes second-hand smoke, some organic cooking fuels, chemicals, dust or fumes. Genetics can play a factor in development of COPD; Alpha-1 Antitrypsin Deficiency (AATD) is the most commonly known genetic risk factor for emphysema.

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Information to note

- In 2014, 4.4% of Minnesotans reported having COPD, compared to 6.4 percent nationally.
- During 2012 - 2014, the rate for COPD related hospitalizations among Ramsey County residents was 13.3 per 10,000 over age 25.

¹ What is COPD? COPD Foundation Web site. <https://www.copdfoundation.org/What-is-COPD/Understanding-COPD/What-is-COPD.aspx>. Accessed September 12, 2017

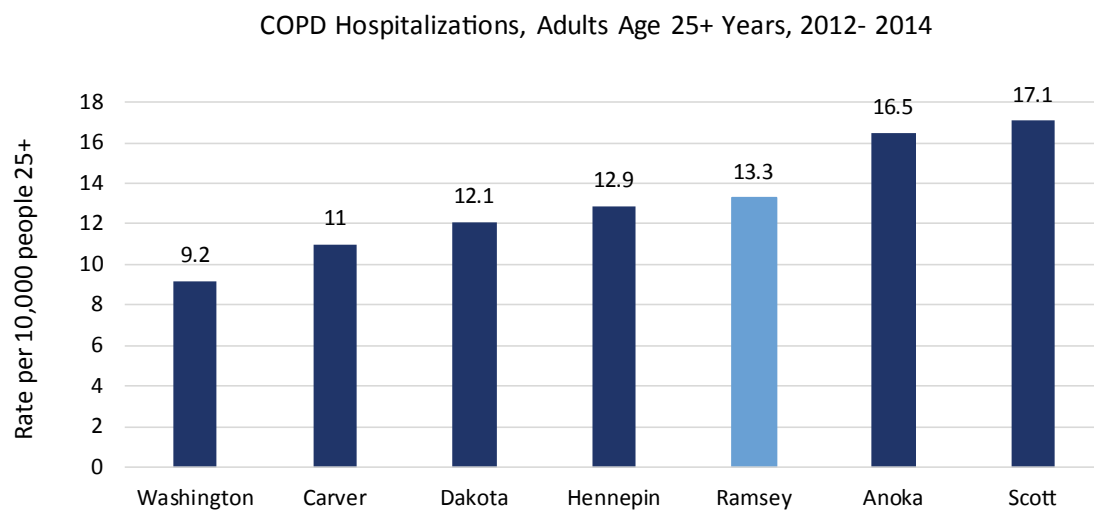
² CHRONIC CONDITIONS IN MINNESOTA: New Estimates of Prevalence, Cost and Geographic Variation for Insured Minnesotans, 2012. Minnesota Department of Health Web site. http://www.health.state.mn.us/divs/hpsc/hep/publications/costs/20160127_chronicconditions.pdf. Accessed October 30, 2017.

³ Minnesota's yearly COPD costs top \$1.9 billion. Minnesota Department of Health Web site. <http://www.health.state.mn.us/news/pressre/2016/copd111516.html>. Accessed November 5, 2017.

⁴ Centers for Disease Control and Prevention. Healthy People 2020. Accessed January 2018 from <https://www.healthypeople.gov/2020/topics-objectives>

WHAT RAMSEY COUNTY GOVERNMENT IS DOING

Saint Paul - Ramsey County Public Health provides data monitoring and reporting for this topic in order to better understand the overall health and current conditions in the community. The information may help inform community partners, policy makers or county program leadership.



Source: MN Public Health Data Access - COPD Hospitalizations.⁵

⁵ MN Public Health Data Access- COPD Hospitalizations. Minnesota Department of Health Web site. <https://apps.health.state.mn.us/mndata/webmap/copd.html#>. Accessed September 12, 2017.

Diabetes and Prediabetes - Adults

DESCRIPTION

Diabetes is a complex chronic disease that affects how the body turns food into energy. There are three types: type 1 accounts for 5-10 percent of all cases and occurs because the body stops making insulin; type 2 occurs when the body cannot use insulin correctly resulting in high levels of sugar in the blood; and gestational diabetes which sometimes develops during pregnancy and usually goes away after delivery. Type 2 diabetes is associated with family history, being overweight, lack of physical activity, prior gestational diabetes and race/ethnicity.¹ Diabetes can cause serious health problems, such as heart disease, blindness, kidney failure and lower extremity amputations. Lifestyle changes can help prevent or delay the onset of diabetes in high risk patients if they reach a moderate weight loss goal and increase their physical activity.²

HOW WE ARE DOING

Diabetes is the seventh leading cause of death in Minnesota. In 2001, the rate of death due to diabetes for every 100,000 people was 24.2 for Minnesota compared to 28.6 for Ramsey County. In 2016, the rate of death in Minnesota dropped to 19.2 compared to a Ramsey County rate of 20.8 per 100,000.³ In 2014, 7.7 percent of Ramsey County adults reported a diagnosis of diabetes. Another 9.8 percent reporting a diagnosis of prediabetes.⁴ However, many people do not realize that they have prediabetes.

BENCHMARK INDICATOR

Healthy People 2020 Objective: Reduce the rate of death due to diabetes. National Vital Statistics System U.S. diabetes mortality rate in 2015: 21.3 per 100,000 standard population.⁵

DISPARITIES

There are disparities related to diabetes. In a 2014 metro survey, 13.9 percent of those from lower income households were diagnosed with diabetes, compared to 5.4 percent of those from higher income households. That's an 8.5 percentage point gap between the two income groups. The same survey found that 15.8 percent of those with only a high school education reported being told they had diabetes compared to 4.3 percent of those with bachelor's degrees. That's an 11.5 percentage point gap between the groups.³ National data show that African-Americans are about twice as likely to be diagnosed with diabetes as non-Hispanic whites.⁶

RISK FACTORS

Obesity and being overweight are the primary risk factors for type 2 diabetes. Type 2 diabetes can often be prevented or controlled with healthy eating, physical activity, controlling blood glucose and blood pressure, lowering LDL cholesterol, being tobacco free and taking aspirin daily.⁷ Risk factors for prediabetes include a current body mass index in the overweight or obese range and a family history of type 2 diabetes. Most people with prediabetes do not know they have it since there are usually no symptoms. For this reason, (continued on back)

Information to note

- In 2014, 7.7% of Ramsey County residents 25 and older reported being diagnosed with diabetes.
- In a 2014 six county metro area survey, there was higher prevalence of diabetes among those with lower income and education.



Community voice

"Taking care of my diabetes."
- White Female, age 65-74

17 respondents mentioned diabetes and stated precautionary actions to manage or prevent it.

¹ Centers for Disease Control and Prevention. Diabetes Public Health Resource. About Diabetes. Retrieved from: <http://www.cdc.gov/diabetes/basics/diabetes.html> Accessed March 2018.

² Minnesota Department of Health. (2012). Diabetes and Prediabetes in Minnesota 2012: Facts for Providers, Researchers, and Diabetes Advocates. Accessed 7/27/2017 from: <http://www.health.state.mn.us/diabetes/pdf/DiabetesPrediabetesMinnesotaFact-Sheet2012.pdf>

³ Death Statistics. Minnesota Department of Health Web site. <https://pqc.health.state.mn.us/mhsq>. Accessed March 2018.S

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 March 2018.

⁵ Healthy People 2020. <https://www.healthypeople.gov/>. Accessed March 2018.

⁶ Diabetes and African Americans. Office of Minority Health. <https://minorityhealth.hhs.gov/omh/browse.aspx?lvlid=18>. Accessed March 2018.

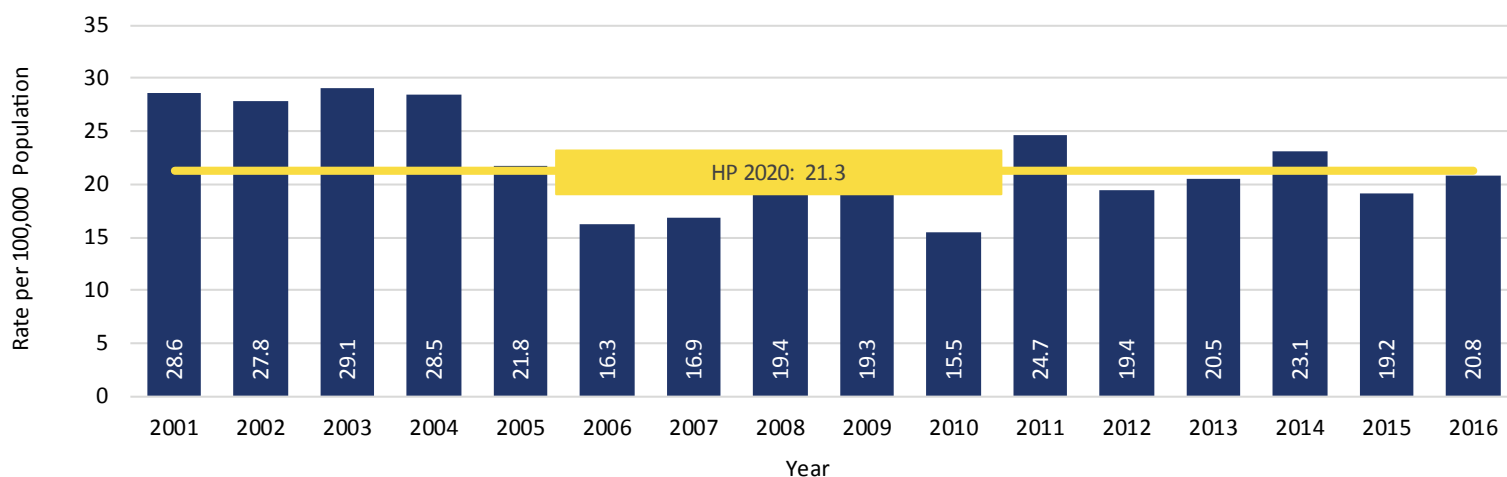
⁷ Minnesota Department of Health, Office of Statewide Health Improvement Initiatives. (2011). Chronic diseases and their risk factors in Minnesota: 2011. Retrieved from: <http://www.health.state.mn.us/divs/hpcd/do/HPCDtrendreport2011.pdf>.

the American Diabetes Association advises people 45 or older who are overweight to be screened for diabetes.⁸

WHAT RAMSEY COUNTY GOVERNMENT IS DOING

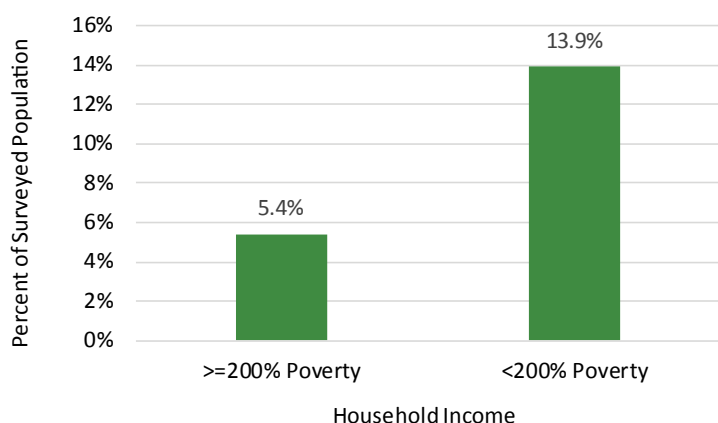
Saint Paul – Ramsey County Public Health addresses diabetes in adults through chronic disease prevention programs. Through a grant from Minnesota Department of Health's Statewide Health Improvement Partnership, Ramsey County provides better access to healthy foods, physical activity and diabetes prevention programs. Ramsey County works to enhance access to healthy foods at food shelves, corner stores and community kitchens. Ramsey County works with public housing agencies to coordinate evidence-based diabetes management programs including Living Well with Diabetes. Additionally, Active Living Ramsey Communities have worked to create and support pedestrian and bicycle plans to create more opportunities for physical activity.

Diabetes Mortality Rate, Ramsey County



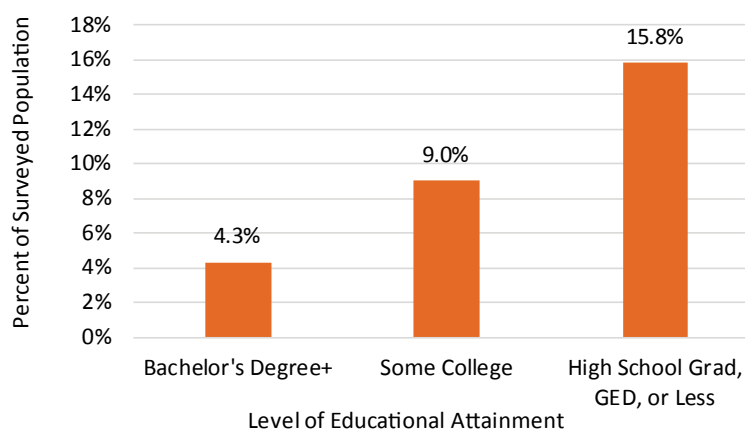
Source: Death Statistics. Minnesota Department of Health Web site.⁹

Diabetes Diagnosis by Household Income, Six-County Metro, 2014



Source: Metro Public Health Analyst Network. Metro SHAPE Six County Data.¹⁰

Diabetes Diagnosis by Education, Six County Metro, 2014



Source: Metro Public Health Analyst Network. Metro SHAPE Six County Data.¹⁰

⁹ Death Statistics. Minnesota Department of Health Web site. <https://pqc.health.state.mn.us/mhsq/frontPage.jsp>. Accessed March 14, 2017.

¹⁰ Metro Public Health Analyst Network. Metro SHAPE Six County Data Book 2014. <https://www.ramseycounty.us/your-government/open-government/research-data/public-health-data>. Accessed March 2018.

Diabetes and Prediabetes - Youth

DESCRIPTION

The types of diabetes among youth are similar to those in adults, but psychosocial issues can complicate treatment. Type 1 (peripheral insulin resistance) is one of the most common chronic childhood diseases, occurring in 1 in 350 children by age 18. It typically manifests between age 4 to 6 years and between 10 to 14 years. Type 2 (varying degrees of insulin resistance and inadequate insulin secretion) has been increasing in frequency in parallel with the increase in obesity. It typically manifests between age 15 to 19 years.¹ About 40 percent of children who have type 2 diabetes have no signs or symptoms and are diagnosed during routine physical exams. Symptoms of type 2 diabetes in children include the following: Increased thirst and frequent urination (excess sugar in bloodstream pulls fluid from tissues); weight loss (without sugar supplies, muscle tissues and fat stores shrink); fatigue (lack of sugar in the cells result in tiredness and lethargy); blurred vision (fluid may be pulled from eyes making focus difficult); slow-healing sores or frequent infections). Pre-diabetes is defined as impaired glucose regulation resulting in glucose levels that are too high to be normal but do not meet criteria for diabetes. Diabetes can affect nearly every major organ in the body and complications may be disabling or life-threatening, including: high blood pressure, high cholesterol, heart disease, stroke, liver disease, kidney disease, blindness and amputation.²

HOW WE ARE DOING

In 2013, 1.1 percent of 5th graders, 1.3 percent of 8th and 9th graders, and 1 percent of 11th graders in Ramsey County reported being diagnosed with diabetes. These levels compare to Minnesota rates of 1 percent across all grade levels. For pre-diabetes, Ramsey County has rates of 1.2 percent among 5th graders, 1.6 percent among 8th graders, 2.2 percent among 9th graders, and 2 percent among 11th graders. These levels compare to Minnesota rates of 1 percent across all grade levels for a diagnosis of pre-diabetes. Since 2013, the Minnesota Student Survey asks questions about general chronic conditions instead of specific diseases such as diabetes.³

DISPARITIES

Nationally, the death rate among African-American children due to diabetes was approximately twice as high as those of white and Hispanic children during 2000-2014.⁴ Diabetes occurs most often in American Indians (15.1 percent) followed by 12.7 percent of non-Hispanic blacks, 12.1 percent of Hispanics, 8.0 percent of Asian-Americans, and 7.4 percent of non-Hispanic whites.⁵

RISK FACTORS

Youth at risk include those who are overweight or have any two of the following: family history of type 2 diabetes; maternal history of diabetes; signs of insulin resistance; or race/ethnicity of American Indian, African-American, Asian, Pacific Islander or Hispanic.¹

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

Information to note

- Diabetes is one of the most common chronic childhood diseases, occurring in 1 in 350 children by age 18.
- Among Ramsey County 9th graders, 2.2% have been diagnosed with pre-diabetes and 1.3% have been diagnosed with diabetes.

¹ Diabetes in Children and Adolescents. Merck Web site. <http://www.merckmanuals.com/professional/pediatrics/endocrine-disorders-in-children/diabetes-in-children-and-adolescents>. Accessed April 2018.

² Type 2 diabetes in children. Mayo Clinic Web site. <https://www.mayoclinic.org/diseases-conditions/type-2-diabetes-in-children/symptoms-causes/syc-20355318>. Accessed April 2018.

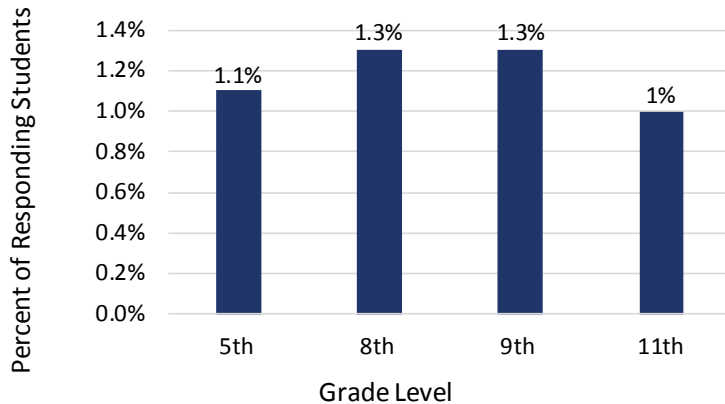
³ Minnesota Department of Health. Minnesota Student Survey 2013. <http://www.health.state.mn.us/divs/chs/mss/>. Accessed April 2018.

⁴ Disparities in Diabetes Deaths Among Children and Adolescents — United States, 2000–2014. Centers for Disease Control and Prevention Web site. <https://www.cdc.gov/mmwr/volumes/66/wr/mm6619a4.htm>. Accessed December 5, 2017.

⁵ American Diabetes Association. Statistics About Diabetes. <http://www.diabetes.org/diabetes-basics/statistics/>. Accessed April 2018.

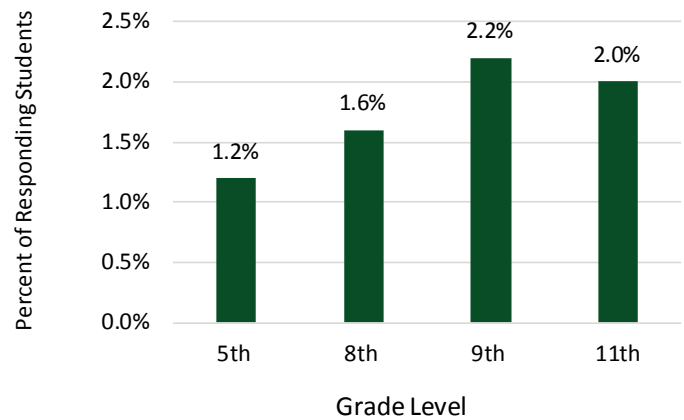
districts using SHIP funds. Along with addressing healthy eating strategies SHIP also funds active living and active school day initiatives so schools can increase the amount of movement that students receive before, during and after school hours, including expanding Safe Routes to School. Additionally, 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.

Students Diagnosed with Diabetes,
Ramsey County, 2013



Source: Minnesota Department of Health. Minnesota Student Survey 2013.

Students Diagnosed with Pre-Diabetes,
Ramsey County, 2013



Source: Minnesota Department of Health. Minnesota Student Survey 2013.

Heart Disease and Stroke

DESCRIPTION

Worldwide, an estimated 17 million people die of cardiovascular diseases (CVDs), particularly heart attacks and strokes, every year.¹ Heart disease is the leading cause of death in the United States and the second leading cause in the state of Minnesota. Strokes are the fifth leading cause for both. Many of the risk factors that contribute to these conditions are preventable or controllable, including high blood pressure, high LDL cholesterol, or current smoking. About half of U.S. adults have at least one of these three major risk factors for CVD. Controlling these factors could reduce a person's risk of heart attack or stroke by up to 80 percent.²

HOW WE ARE DOING

In Ramsey County in 2014, 3.7 percent of surveyed residents were told by a doctor or other health professional that they had experienced a heart attack; 6.8 percent were diagnosed with heart disease; and 2.7 percent were diagnosed with a stroke.³ In 2016, there were 257 fatal strokes in Ramsey. In that same year, another 666 people died from heart disease; a rate of 108.8 people for every 100,000.⁴ For 2012-2016, the five-year age adjusted rates for stroke deaths in Minnesota was 32.7 per 100,000 compared to a Ramsey rate of 39.6 per 100,000 which does not meet the Healthy People 2020 target. During that same period, the five-year age adjusted rates for heart disease deaths in Minnesota was 116.6 per 100,000 compared to a Ramsey rate of 110.8 which does not meet the Healthy People 2020 target.⁵

BENCHMARK INDICATOR

- 1) Healthy People 2020: Reduce the rate of coronary heart disease deaths.
U.S. Target: 103.4 per 100,000 people.
- 2) Healthy People 2020: Reduce the rate of stroke deaths.
U.S. Target: 34.8 per 100,000 people.⁶

DISPARITIES

Men are generally at greater risk of heart disease; however, women's risk increases after menopause.⁷ According to a 2014 survey in the Metro area, those with less education or lower income have a much higher risk of coronary heart disease, strokes and heart attacks. Among those with high school education, 12.1 percent report being diagnosed with heart disease compared to 3.1 percent of those with a bachelor's degree.³

RISK FACTORS

Coronary heart disease and stroke share many of the same risk factors such as high LDL cholesterol levels, low HDL cholesterol levels, high blood pressure, smoking, diabetes, physical inactivity, and being overweight or obese.⁸

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Information to note

- Ramsey County does not meet the Healthy People 2020 goal for either stroke deaths or coronary heart disease deaths.
- Those with less education or lower income have a higher risk of coronary heart disease, strokes and heart attacks.

¹ The Atlas of Heart Disease and Stroke. World Health Organization Web site. http://www.who.int/cardiovascular_diseases/resources/atlas/en/. Accessed February 2018.

² Preventing the Nation's Leading Killers At A Glance 2016. Centers for Disease Control and Prevention Web site. <https://www.cdc.gov/chronicdisease/resources/publications/aag/heart-disease-stroke.htm>. Accessed February 2018.

³ Metro Public Health Analyst Network. Metro SHAPE Six County Data Book 2014. <https://www.ramseycounty.us/your-government/open-government/research-data/public-health-data>. Accessed February 2018.

⁴ Minnesota Vital Statistics Interactive Queries. Minnesota Department of Health Website. <https://mhsq.web.health.state.mn.us/frontPage.jsp>. Accessed May 15, 2018.

⁵ Minnesota Department of Health. Minnesota State, County, and Community Health Board Vital Statistics Trend Report, 1997-2016. <http://www.health.state.mn.us/divs/chs/trends/index.html> Accessed February 22, 2018.

⁶ Healthy People 2020. <https://www.healthypeople.gov/2020/topics-objectives/topic/heart-disease-and-stroke/objectives>. Accessed February 2018.

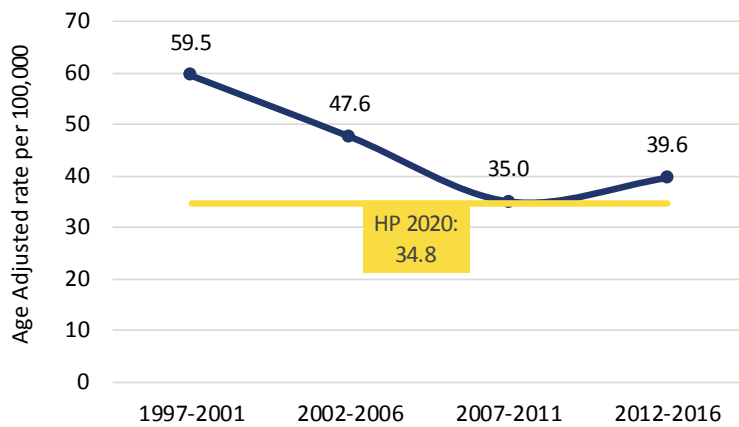
⁷ Heart Disease. Mayo Clinic Web site. <http://www.mayoclinic.org/diseases-conditions/heart-disease/symptoms-causes/dxc-20341558>. Accessed February 2018.

⁸ How Cardiovascular and Stroke Risks Relate. American Heart Association Web site. http://www.strokeassociation.org/STROKEORG/LifeAfterStroke/HealthyLivingAfterStroke/UnderstandingRiskyConditions/How-Cardiovascular-Stroke-Risks-Relate_UCM_310369_Article.jsp. Accessed February 2018.

WHAT RAMSEY COUNTY GOVERNMENT IS DOING

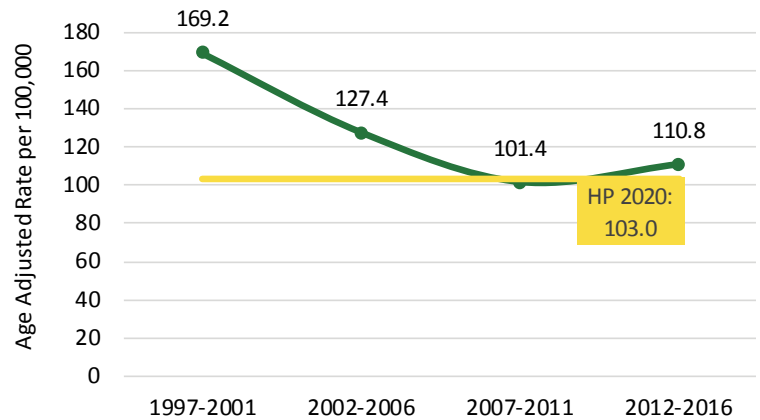
The Statewide Health Improvement Partnership (SHIP) work has become an integral part of Saint Paul- Ramsey County Public Health's efforts to help combat and prevent chronic disease and obesity among Ramsey County residents. Efforts include working toward healthier food access within workplaces, food shelves, neighborhood and public housing sites. 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. Additionally, SHIP encourages drinking water rather than sugar-sweetened beverages within public housing sites and park and rec departments. SHIP and Active Living Ramsey Communities have worked to create and support pedestrian and bicycle plans to create more opportunities for physical activity. Healthy eating and physical activity are vital to preventing and addressing chronic disease, including heart disease and stroke.

Rate of Stroke Deaths, Ramsey County



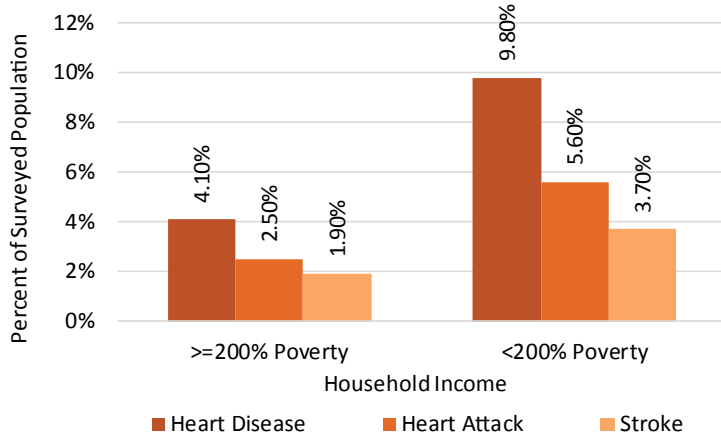
Source: Minnesota Department of Health.⁹

Rate of Heart Disease Deaths, Ramsey County



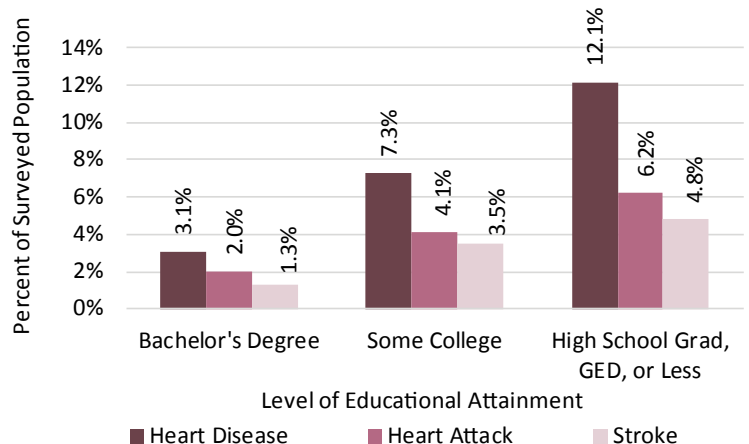
Source: Minnesota Department of Health.⁹

Heart Disease, Heart Attack and Stroke by Income, Six County Metro, 2014



Source: Metro Public Health Analyst Network. Metro SHAPE.¹⁰

Heart Disease, Heart Attack or Stroke Diagnosis by Education, Six County Metro, 2014



Source: Metro Public Health Analyst Network. Metro SHAPE.¹⁰

⁹ Minnesota Department of Health. Minnesota State, County, and Community Health Board Vital Statistics Trend Report, 1997-2016. <http://www.health.state.mn.us/divs/chs/trends/index.html> Accessed February 22, 2018.

¹⁰ Metro Public Health Analyst Network. Metro SHAPE Six County Data Book 2014. <https://www.ramseycounty.us/your-government/open-government/research-data/public-health-data>. Accessed March 2018.

DESCRIPTION

Self-reported overall health status among adults be a snapshot into the future burden of chronic disease and illness in a community. A recent study found a strong positive correlation among measures of self-reported poor health and the risk factors for chronic health conditions. It also found and a strong negative correlation between poor self-reported health and life expectancy.¹ Self-reports of health status can complement other measures of population health, and be used to identify high need communities, efficiently allocate resources and monitor disparities.

HOW ARE WE DOING

Based on the 2014 Metro SHAPE survey data, 89.2 percent of Ramsey County respondents indicated that their health was good, very good or excellent.² In 2016, 87.8 percent of Minnesota adults self-reported that their health was good or better.³

BENCHMARK INDICATOR

Healthy People 2020: Increase the proportion of adults who self-report good or better physical health.

U.S. Target: 79.8 percent.⁴

DISPARITIES

Adults in the six-county metro area with incomes below 200 percent of the federal poverty level rated their health as lower than those with higher incomes. Adults with no college degree rated their health as lower than those who did have college degrees. About 21.3 percent of adults with only a high school education report fair or poor health status compared to 3.8 percent of those with bachelor's degrees.²

RISK FACTORS

Some of the risk factors that contribute to poor overall health are housing/neighborhood conditions, access to suitable health care, quality education and healthy foods.

WHAT RAMSEY COUNTY GOVERNMENT IS DOING

Saint Paul - Ramsey County Public Health provides data monitoring and reporting for this topic in order to better understand the overall health and current conditions in the community. The information may help inform community partners, policy makers or county program leadership.

Information to note

- Based on the 2014 Metro SHAPE data, 89.2 percent of Ramsey county respondents indicate that their health is good, very good or excellent. This compares to a Minnesota rate of 87.8 percent.
- Adults with lower income and/or less education report lower health status.

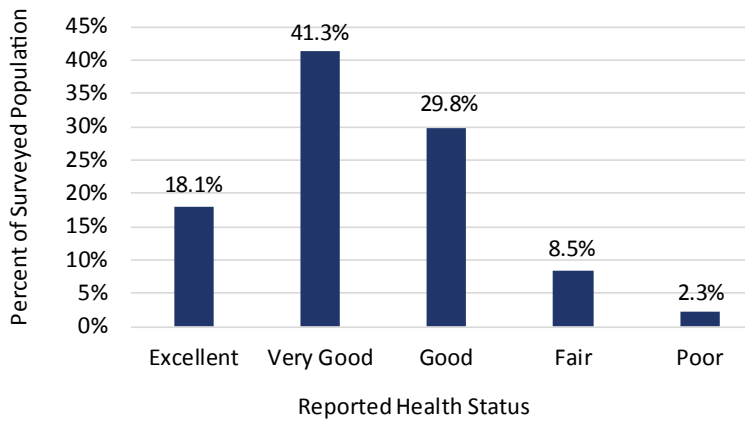
¹ Dwyer-Lindgren L; Mackenbach J; van Lenthe F; Mokdad A. Advancing innovation in health measurement. Population Health Metrics. April 2017. 15:16. <https://doi.org/10.1186/s12963-017-0133-5>. Accessed March 1, 2018.

² 2014 Metro SHAPE Adult Survey – Ramsey County Data Book. Ramsey County Public Health Website. https://www.ramseycounty.us/sites/default/files/Open%20Government/Public%20Health%20Data/ramsey_county_metro_SHAPE_2014_survey.pdf. Accessed August 15, 2017.

³ Behavioral Risk Factor Surveillance System. Centers for Disease Control and Prevention. <https://www.cdc.gov/brfss/brfssprevalence/index.html>. Accessed March 2018.

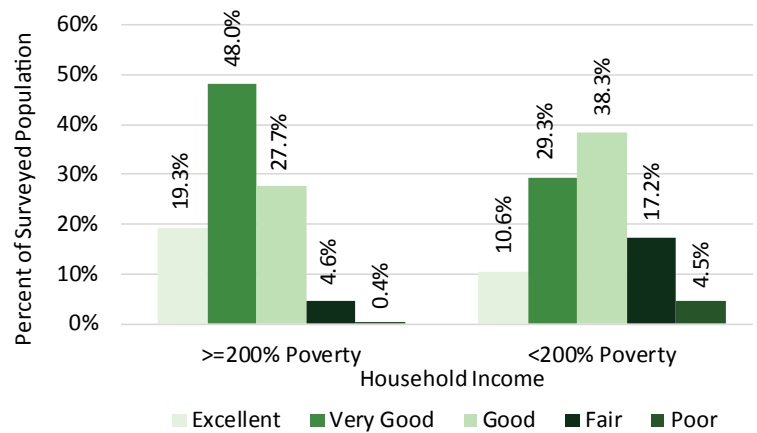
⁴ Health-Related Quality of Life & Well-being. 2020 Topics and Objectives. Healthy People 2020 Web site. <https://www.healthypeople.gov/2020/topics-objectives/topic/Health-Related-Quality-of-Life-Well-Being/objectives#4634>. Accessed November 22, 2017.

Health Status among Adults 25+ Years,
Ramsey County 2014



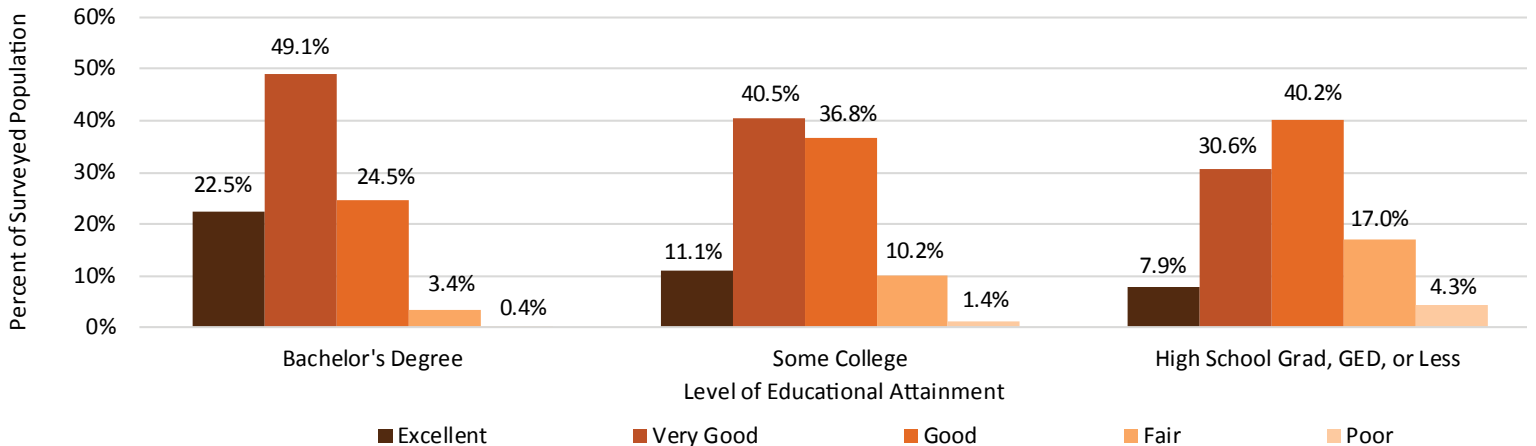
Source: Saint Paul – Ramsey County Public Health. Metro SHAPE.

Health Status by Income, Adults 25+ Years,
Six County Metro Area 2014



Source: Metro Public Health Analyst Network.⁵

Health Status by Education, Adults 25+ Years,
Six County Metro Area 2014



Source: Metro Public Health Analyst Network.⁵

⁵ Metro Public Health Analyst Network. Metro SHAPE Six County Data Book 2014. <https://www.ramseycounty.us/your-government/open-government/research-data/public-health-data>. Accessed March 1, 2018.

DESCRIPTION

Self-reported overall health status can provide a snapshot into how youth perceive their health while identifying potential disparities. Identified gaps can be a red flag for additional study.

HOW WE ARE DOING

According to the Minnesota Student Survey Ramsey County ninth-graders rate their health status as poorer than Minnesota students. In 2016 88.5 percent of Ramsey County ninth-graders reported their health status as good, very good or excellent, compared to 91.8 percent of Minnesota ninth-graders. On the other end of the spectrum 11.5 percent of Ramsey County ninth-graders reported poor or fair health status compared to the Minnesota rate of 8.2 percent.^{1,2} As students age their self-reported health status declined. In Ramsey County about 38 percent of fifth-graders reported excellent health, but by 11th grade only 28 percent of males and 17 percent of females reported excellent health.

DISPARITIES

People of color suffer disproportionately from a lack of resources that contribute to overall health. The areas in which they live often lack the environmental factors that support good health, such as access to health care and healthy foods. These disparities can lead to increased stress levels and have direct negative impact on overall health.³ Among white ninth-graders in Ramsey County about 93.7 percent report good, very good or excellent health compared to non-white students at 88.7 percent. Looking at the other end of the continuum 6.4 percent of white ninth-graders report fair or poor health, compared to a non-white rate of 11.4 percent. That is a disparity gap of five percentage points.⁴

RISK FACTORS

Risk factors that contribute to lower health status ratings include poverty; lack of access to health care, public transportation and quality education; and fewer opportunities for healthy eating and physical activity.

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 school-age youth. There are numerous school yard garden programs, farm to school food 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. Healthy eating and physical activity are vital to preventing and addressing chronic illness and disease.

(continued on back)

Information to note

- Among Ramsey County students about 38% of 5th graders report excellent health, but by 11th grade only 28% of males and 17% of females report excellent health.
- Only 6.4% of Ramsey County white 9th graders report fair or poor health, compared to 11.4% of students of color.

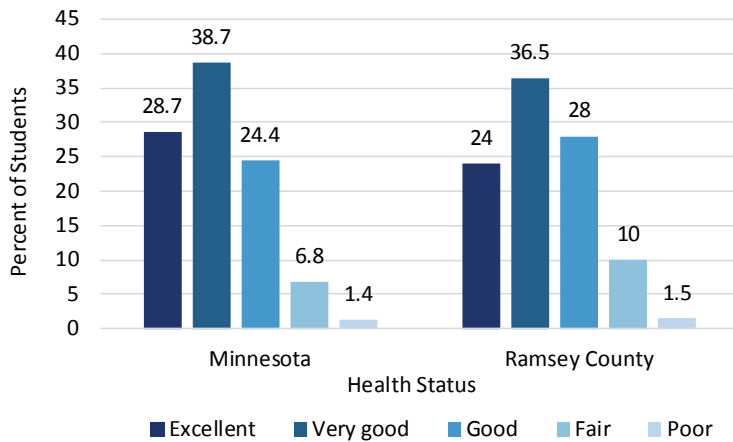
¹ 2016 Minnesota Student Survey Statewide Tables. Minnesota Department of Education. <http://education.state.mn.us/mdeprod/groups/communications/documents/basic/bwrl/mdl5/~edisp/mde059325.pdf>. Accessed March 2018.

² 2016 Minnesota Student Survey Reports 2013-2016. Minnesota Department of Education. <http://w20.education.state.mn.us/MDEAnalytics/Data.jsp>. Accessed March 2018.

³ Advancing Health Equity in Minnesota. Minnesota Department of Health. <http://www.health.state.mn.us/divs/chs/healthequity/>. Accessed March 2018.

⁴ Minnesota Student Survey. Saint Paul – Ramsey County Public Health data set.

Self-Reported Health Status Among 9th Graders, 2016



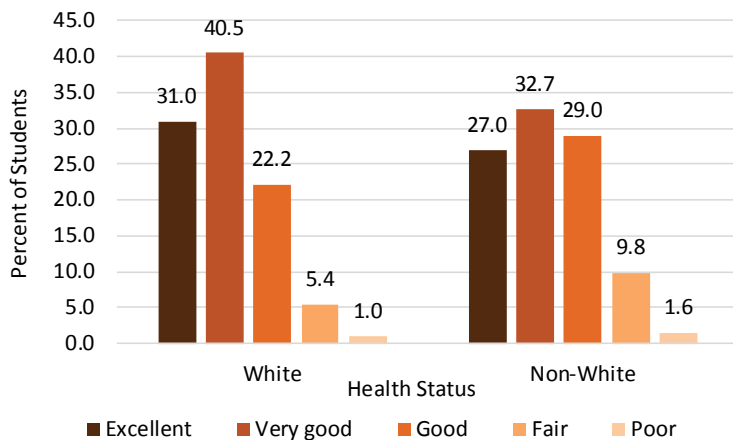
Source: Minnesota Department of Health.⁵

Self-Reported Health Status by Grade and Gender
Ramsey County, 2016



Source: Minnesota Department of Health.⁵

Self-Reported Health Status Among 9th Graders
by Racial Group, Ramsey County, 2016



Source: Minnesota Department of Health.⁵

⁵ Minnesota Department of Health. Minnesota Student Survey 2016. <http://www.health.state.mn.us/divs/chs/mss/>. Accessed March 2018.

High Blood Pressure

DESCRIPTION

High blood pressure (hypertension) is a medical condition where prolonged excessive force from blood on artery walls may lead to more serious problems such as heart disease, stroke and kidney disease. A person can have high blood pressure for years without any symptoms. Even without symptoms, damage to blood vessels and the heart continues and can be detected.¹

HOW ARE WE DOING

Statewide mortality rates due to high blood pressure have decreased since 2005; from 9.8 to 7.6 deaths for every 100,000 people in 2015. A study that analyzed five years of survey data from the Minneapolis/Saint Paul area found that high blood pressure rates were among the highest in the U.S. and exceeded Healthy People 2020 objectives.² In 2012, 75 percent of Minnesotans aged 18-85 in managed care plans who received a diagnosis of high blood pressure had their blood pressure controlled to 140/90 mm Hg or lower within one year after the diagnosis. In 2014, 22.3 percent of Ramsey County residents surveyed had been diagnosed with high blood pressure, and an additional 22 percent with pre-hypertension.³

BENCHMARK INDICATOR

Healthy People 2020: Reduce the percent of adults aged 18 and older who have diagnosed high blood pressure.

U.S. Target: 26.9 percent⁴

DISPARITIES

In Minnesota, 29 percent of African-Americans report high blood pressure, compared to 28 percent of whites, a smaller gap than for the U.S.⁵ Populations with lower education have higher rates of high blood pressure. Among the Metro population residents surveyed, 45 percent of those having a high school education had a diagnosis of high blood pressure compared to 16 percent of those with bachelor's degrees. Populations with lower income had higher rates of high blood pressure. Among the Metro population residents surveyed, 34 percent of those from lower income households had a diagnosis of high blood pressure compared to 20 percent of those from higher income households.⁶

RISK FACTORS

Individuals who are unemployed or experience job insecurity may face health risks such as increased blood pressure and stress.⁷ In 2012, hypertensive heart disease (caused by high blood pressure) was listed as the underlying or contributing cause of death for 6,764 Minnesotans, representing almost 17 percent of all deaths.² Keeping blood pressure levels in a healthy range usually involves reducing sodium in the diet, getting daily physical activity, not smoking and taking prescribed medications.⁸

Information to note

- In 2014, 22.3% of Ramsey County residents surveyed were diagnosed with high blood pressure, and an additional 22% with pre-hypertension.
- There's a 29 percentage point education disparity gap for high blood pressure, with higher rates among those having high school education compared to those having a bachelor's degree.
- There's a 14 percentage point income disparity gap for high blood pressure, with higher rates among those with lower household income compared to those with higher household income.



Community voice

"Diabetes and blood pressure, so I have to regularly visit doctor."

- Black/African American
Female, age 55-64

¹ High Blood Pressure (Hypertension). (2016) Mayo Clinic. Accessed 8/04/2017 from: <http://www.mayoclinic.org/diseases-conditions/high-blood-pressure/basics/definition/con-20019580> , Accessed January 2018.

² Luepker, R., et. al; Trends in blood pressure and hypertension detection, treatment and control 1980–2009: The Minnesota Heart Survey. (2012) US National Library of Medicine National Institutes of Health. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3482957/> . Accessed January 2018.

³ Saint Paul – Ramsey County Public Health. Metro SHAPE 2014 Ramsey County Data Book. <https://www.ramseycounty.us/your-government/open-government/research-data/public-health-data>. Accessed January 2018.

⁴ Centers for Disease Control and Prevention. Healthy People 2020. <https://www.healthypeople.gov/2020/topics-objectives>. Accessed January 2018.

⁵ High Blood Pressure in Minnesota (2015) Minnesota Department of Health. <http://www.health.state.mn.us/divs/healthimprovement/data/quick-facts/hypertension.html>. Accessed January 2018.

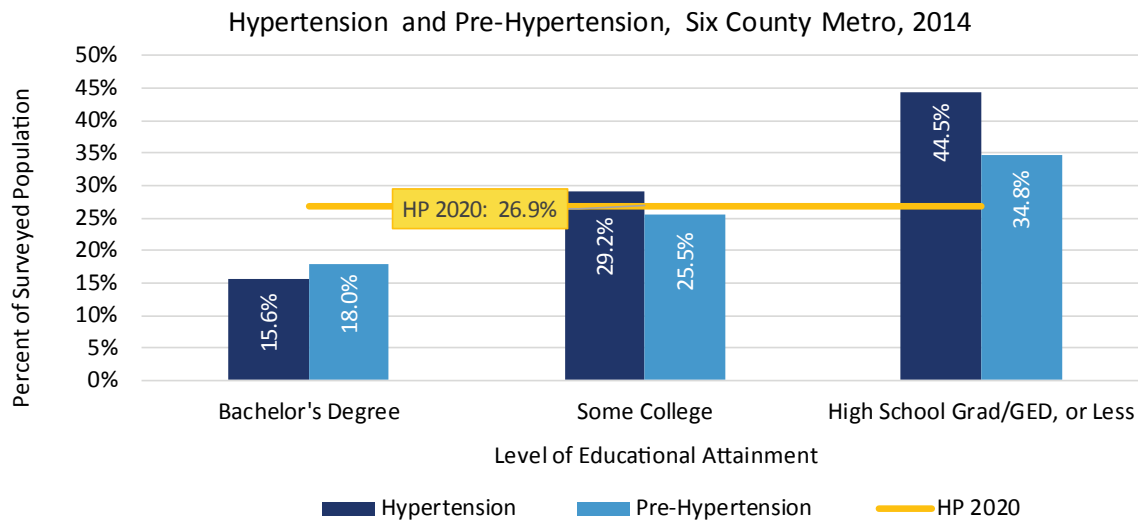
⁶ Metro Public Health Analyst Network. Metro SHAPE Six County Data Book. 2014. <https://www.ramseycounty.us/your-government/open-government/research-data/public-health-data>. Accessed January 2018.

⁷ Demographics Affecting Health – Ramsey County Profile. (2012) Culture Care Connection. <http://www.culturecareconnection.org/documents/RamseyCounty.pdf>. Accessed January 2018.

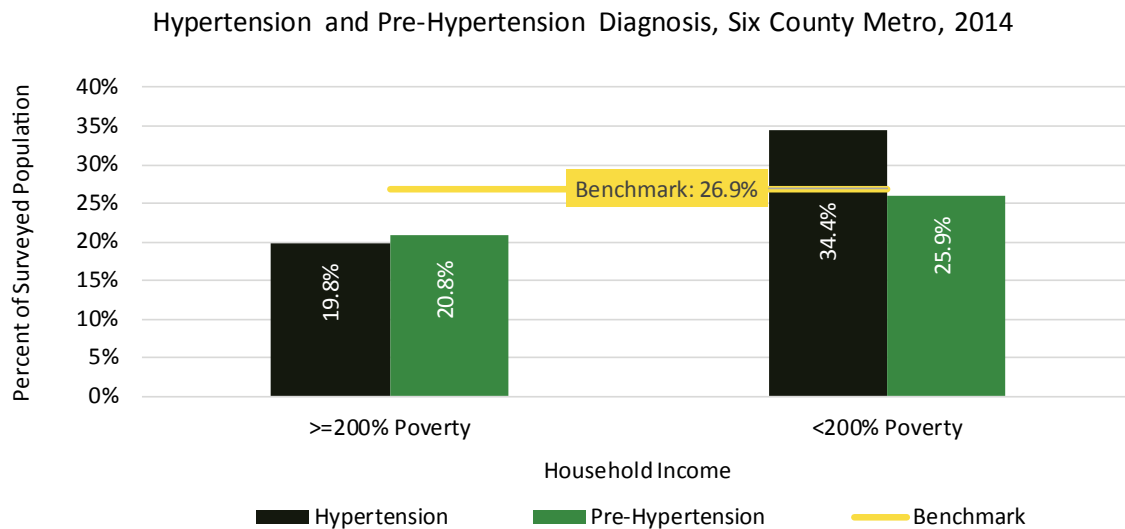
⁸ High Blood Pressure Fact Sheet (2016) Center for Disease Control and Prevention. https://www.cdc.gov/dhds/p/data_statistics/fact_sheets/fs_bloodpressure.htm. Accessed January 2018.

WHAT RAMSEY COUNTY GOVERNMENT IS DOING

Saint Paul - Ramsey County Public Health provides data monitoring and reporting for this topic in order to better understand the overall health and current conditions in the community. The information may help inform community partners, policy makers or county program leadership.



Source: Metro Public Health Analyst Network. Metro SHAPE Six County Data Book.⁹



Source: Metro Public Health Analyst Network. Metro SHAPE Six County Data Book 2014.¹⁰

⁹ Metro Public Health Analyst Network. Metro SHAPE Six County Data Book. 2014. <https://www.ramseycounty.us/your-government/open-government/research-data/public-health-data>. Accessed July 17, 2017.

¹⁰ Metro Public Health Analyst Network. Metro SHAPE Six County Data Book 2014. <https://www.ramseycounty.us/your-government/open-government/research-data/public-health-data>. Accessed January 2018.

DESCRIPTION

Sleep needs vary across ages and are especially impacted by lifestyle and health. Older adults who have poor nighttime sleep are more likely to have depressed mood, attention and memory problems, excessive daytime sleepiness, more nighttime falls, and use more over-the-counter or prescription sleep aids. Poor sleep is also associated with a poorer quality of life.¹ Sleep data to help judge the overall health of a region, and to identify existing risk factors and disparities.

HOW ARE WE DOING

Minnesota is ranked third in the country for adults who report getting seven or more hours of sleep per night on average.² In 2014, 28.9 percent of Minnesota adults reported usually sleeping less than seven hours in a 24-hour period. The average bedtime for Ramsey County residents in 2014 was 11:23 p.m.; the latest time among all seven-county metro area residents. Ramsey County adults reported an average of seven hours of sleep per night. This was the second lowest in the metro area; behind Hennepin County adults who reported an average of 6.94 hours.³

BENCHMARK INDICATOR

Healthy People 2020: Increase the proportion of adults who get sufficient sleep.
U.S. Target: 70.8 percent of adults age 22 and older get seven or more hours of sleep a night on average.

DISPARITIES

Poor sleep quality is strongly associated with poverty and race.⁴ In Minnesota, about half (46.7 percent) of African-Americans report getting insufficient sleep. A recent study found that more than one in four middle-aged women reported experiencing difficulty falling and staying asleep four or more times each week.⁵ More than one in three women reported getting fewer than seven hours of sleep per night, on average. Of those, perimenopausal women—women who were no longer menstruating and on the verge of menopause—were the least likely to sleep seven or more hours a night. This was followed closely by postmenopausal women. Sleep duration changes with age; both sleep duration and quality are impacted by shifts in reproductive hormone levels.⁶

RISK FACTORS

Causes of insufficient sleep include lifestyle and occupational factors. In addition, some medical conditions, medications, hormone changes and sleep disorders like sleep apnea affect how long and how well a person sleeps. Blue light (light from technology) use near bedtime can affect levels of the sleep-inducing hormone melatonin. Changes in sleep patterns can in turn shift the body's natural clock, known as its circadian rhythm. Recent studies have shown that shifts in this clock can have devastating health effects because it controls not only our wakefulness but body organ functions. In other words, stressors that affect our circadian clocks, such as blue-light exposure, can have much more serious consequences than originally thought.⁶

Information to note

- The average bedtime for county residents in 2014 was 11:23 p.m.
- Ramsey County currently meets the Healthy People 2020 goal for sufficient sleep among adults.
- In Minnesota, about half (46.7%) of African-Americans report getting insufficient sleep, compared to 29.8% for the entire state.



Community voice

"Stress, lack of sleep."
- White Female, age 75-84

523 responses mentioned the impact adequate sleep has on overall health.

40% of those mentioning sleep stated they are not getting enough sleep due to stress and expressed the negative implications.

¹ Sleep and Aging. NIH Senior Health. <https://nihseniorhealth.gov/sleepandaging/aboutsleep/01.html>. Accessed July 22, 2017.

² Short Sleep Duration among U.S. Adults. Centers for Disease Control and Prevention. https://www.cdc.gov/sleep/data_statistics.html. Accessed July 22, 2017.

³ Gregoire, C., What Time Does America Go To Bed? Huffington Post. 2015. http://www.huffingtonpost.com/2014/10/08/sleep-times-america-counties_n_5942296.html. Accessed July 22, 2017

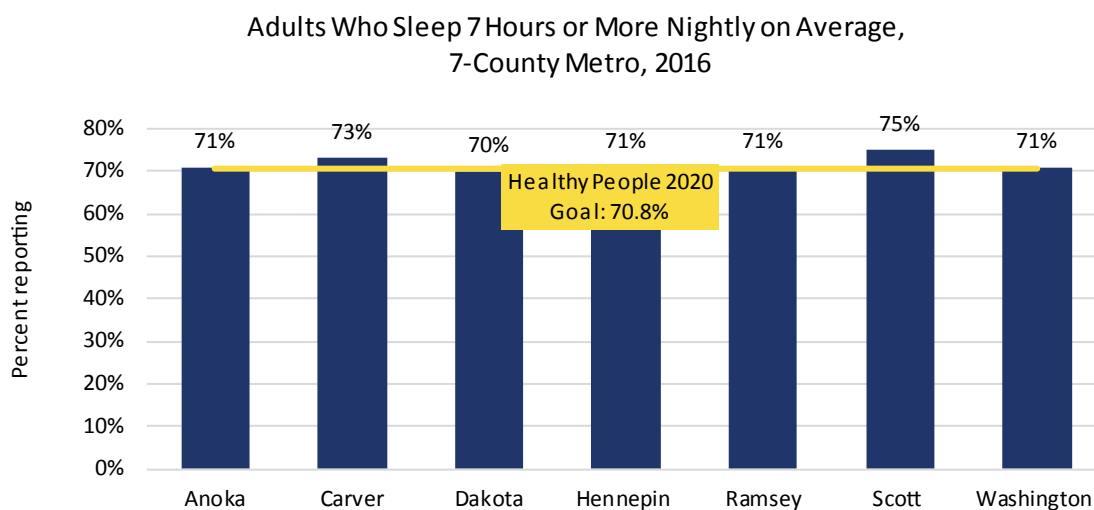
⁴ Patel, N., et. al., "Sleep disparity" in the population: poor sleep quality is strongly associated with poverty and ethnicity. BMC Public Health. 2010. <https://bmcpublichealth.biomedcentral.com/articles/10.1186/1471-2458-10-475>. Accessed July 26, 2017.

⁵ Strickland, A. Women in midlife aren't sleeping enough, study says. CNN Web site. <http://www.cnn.com/2017/09/07/health/women-sleep-menopause/index.html>. Accessed September 14, 2017.

⁶ Shmerler, J. Q&A: Why Is Blue Light before Bedtime Bad for Sleep? Scientific American. 2015. <https://www.scientificamerican.com/article/q-a-why-is-blue-light-before-bedtime-bad-for-sleep/>. Accessed August 25, 2017

WHAT RAMSEY COUNTY GOVERNMENT IS DOING

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Source: County Health Rankings and Roadmaps. County Health Rankings 2017.⁷

⁷ County Health Rankings and Roadmaps. County Health Rankings 2017. Web site. <http://www.countyhealthrankings.org/app/minnesota/2017/rankings/ramsey/county/outcomes/overall/snapshot>. Accessed July 22, 2017.

DESCRIPTION

Across all ages, lack of sleep can lead to behavioral issues and learning difficulties. Youth who are excessively sleepy during the day are more likely to experience problems with learning, attention, conduct and hyperactivity.¹ From the time they hit puberty until the age of 22, adolescents need about nine hours of sleep a night to function optimally.²

HOW ARE WE DOING

The 2016 Minnesota Student Survey found that around eighth grade, students began to report shorter sleep schedules and less quality sleep. Among fifth-graders, 84 percent reported that they got at least eight hours of sleep in an average school night, while only 19 percent of 11th-graders surveyed reported the same. Caffeine and sugar consumption can play a large role in length and quality of sleep. In that same survey, 6.5 percent of Ramsey County 11th-graders reported drinking one to two energy drinks on an average day. Another 2.4 percent reported drinking three or more. As for pop or soda, 32.2 percent of students drank at least one to two on an average day, and another 10.7 percent reported consuming more than three. Caffeine consumption even six hours before bedtime can have a negative impact on sleep.

BENCHMARK INDICATOR

Healthy People 2020: Increase the proportion of students in grades 9 through 12 who get sufficient sleep.

U.S. Target: 33.1 percent receive eight hours or more per night on average.

DISPARITIES

Males tend to get less sleep than females; the survey found 79 percent of female and 83 percent of male 11th-graders get seven hours of sleep or less on an average school night in Ramsey County. Nationally, the Asian population had poorest quality of sleep with only 21 percent of students getting sufficient sleep.³

RISK FACTORS

Screen time before bed increases risk of short sleep duration, long sleep onset latency and increased sleep deficiency.⁴ It is also widely known that caffeine use during the day and especially close to bedtime can disrupt sleep in all ages.

WHAT RAMSEY COUNTY GOVERNMENT IS DOING

Saint Paul - Ramsey County Public Health provides data monitoring and reporting for this topic in order to better understand the overall health and current conditions in the community. The information may help inform community partners, policy makers or county program leadership.

Information to note

- Adolescents need about nine hours of sleep a night to function optimally.
- 84% of students in fifth grade reported that they got at least eight hours of sleep during an average school night, while only 19 percent of 11th-graders said the same.

¹ Improve Your Child's School Performance With a Good Night's Sleep. National Sleep Foundation Web site. <https://sleepfoundation.org/excessivesleepiness/content/improve-your-childs-school-performance-good-nights-sleep>. Accessed July 24, 2017.

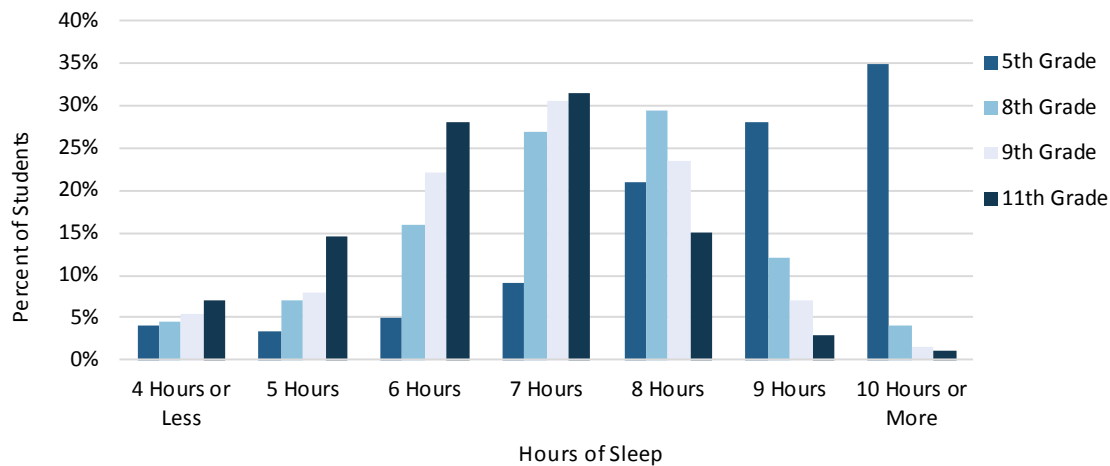
² Garey, J., How to Help Teenagers Get More Sleep. Child Mind Institute. 2012. <https://childmind.org/article/help-teenagers-get-sleep/>. Accessed July 24, 2017.

³ Disparities Overview by Race and Ethnicity. Healthy People 2020 Web site. <https://www.healthypeople.gov/2020/data/disparities/summary/Chart/5260/3>. Accessed July 24, 2017.

⁴ Hysing, M., et al. Sleep and use of electronic devices in adolescence: results from a large population-based study. BMJ Journals. 2014. <http://bmjopen.bmj.com/content/5/1/e006748>. Accessed July 24, 2017.

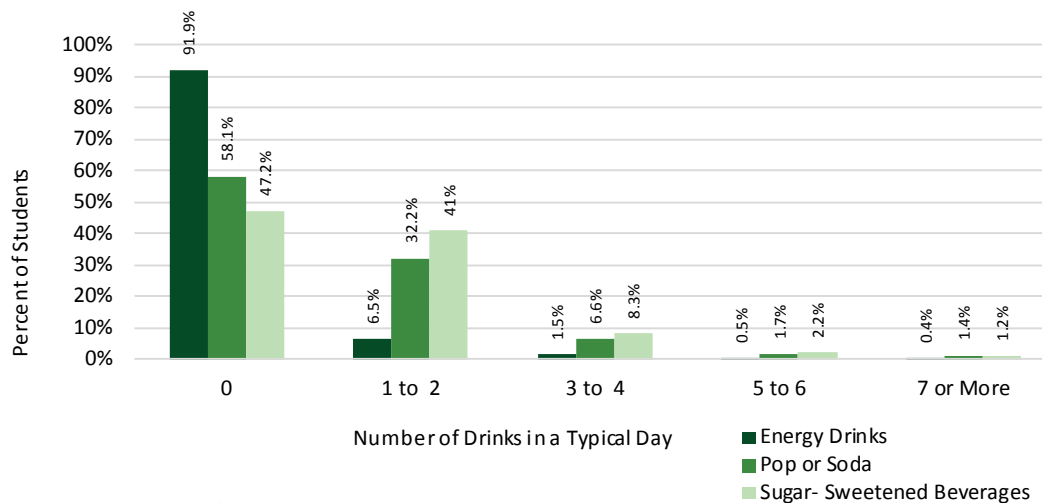
Sleep- Youth figures

Report of Sleep per Typical School Night, Ramsey County, 2016



Source: Minnesota Student Survey.⁵

Consumption of Select Beverages, 11th Graders, Ramsey County, 2016



Source: Minnesota Student Survey.⁶

⁵ Minnesota Student Survey. Minnesota Department of Education Web site. <http://w20.education.state.mn.us/MDEAnalytics/DataTopic.jsp?TOPICID=242>. Accessed July 21, 2017.

⁶ Minnesota Student Survey. Minnesota Department of Education Web site. <http://w20.education.state.mn.us/MDEAnalytics/Data.jsp>. Accessed August 25, 2017.