

## Community Health Assessment Topic Areas

*Larger clusters that have existing conditions, behaviors, outcomes, and (select) program measures in one place. Topics generally clustered based on combination of country strategic goals, public health department/program focus, Healthy People 2020 topics and plain language.*

### **Economic Conditions**

Poverty - Children  
Poverty-All Ages  
Poverty-Areas of Concentration  
School - Free/Reduced Price Meals  
Household Income  
Unemployment  
Housing Age, Ownership and Home Values  
Housing Cost Burden and Affordability  
Housing Foreclosures  
Homelessness  
Child Care Costs  
Child Support Collection  
Minnesota Family Investment Program

### **Access to Health Care**

Health Care Affordability  
Health Insurance  
Medical Assistance / MinnesotaCare  
Preventive Care Among Publicly Insured Youth  
Pregnancy Prevention and Condom Use – Youth  
Delay of care – prescriptions  
Health Workforce and Regular Source of Care  
Emergency Department Visits

### **Parks and Streets**

Parks  
Transportation - Public Access  
Walkable Neighborhoods

### **Crime**

Crime  
Crime - Unlawful Conduct Among Youth  
Crime - Domestic Violence  
Crime - Sex Trafficking  
Crime - Incarceration and Legal Supervision of Adults

### **Environmental Health**

Air Quality  
Small Particulate Matter  
Ground-level Ozone  
Greenhouse Gas  
Carbon Monoxide Poisoning  
Childhood Lead Poisoning  
Radon  
Secondhand Smoke  
Health and a Changing Climate  
Hazardous Events  
Energy Management  
Solid Waste Management

### **Causes of Death**

Leading Causes of Death  
Years of Potential Life Lost

### **Chronic Disease**

Health Status – Adult  
Health Status - Youth  
Sleep – Adults  
Sleep - Youth  
High Blood Pressure  
Cholesterol  
Diabetes and Prediabetes – Adults  
Diabetes and Prediabetes - Youth  
Chronic Obstructive Pulmonary Disease  
Asthma  
Alzheimer's Disease  
Arthritis  
Chronic Kidney Disease  
Heart Disease and Stroke  
Cancer

### **Nutrition, Physical Activity and Obesity**

Fruit and Vegetable Consumption  
Physical Activity – Adults  
Physical Activity - Youth  
Obesity-Adults  
Obesity-Youth

**Oral Health**

Oral Health  
Oral Health – Seniors

**Mental Health**

Mental Well-Being - Adults  
Mental Illness - Adults  
Vulnerable Adults and Adult Protection  
Emotional Distress-Youth  
Suicide Thoughts and Behaviors - Youth  
Suicide

**Youth Experiences**

Child Care  
Child Care - Providers Language  
Youth Enrichment  
Youth Feeling Safe  
School - Student Mobility  
Adverse Childhood Experiences (ACES)  
Bullying Among Youth  
Child Maltreatment  
Out-of-Home Placement - Youth  
Early Childhood Screening  
School Attendance  
School - Dropping Out  
School Graduation  
Educational Attainment

**Healthy Food**

Food Insecurity  
Food Shelf Use  
Healthy Food Access  
Supplemental Nutrition Assistance  
Program  
School Food Environments

**Healthy Mothers and Babies**

Breastfeeding Mothers Receiving WIC  
Family Planning and Birth Spacing  
Infant Mortality  
Low Birth Weight  
Pregnancy and Birth - Youth  
Prenatal Care  
Special Supplemental Nutrition Program  
for Women, Infants and Children (WIC)  
Substance Use During Pregnancy

**Infectious Disease**

HIV and AIDS  
Sexually Transmitted Diseases and  
Infections  
Pertussis  
Tick Transmitted Disease  
Tuberculosis  
Immunizations  
Foodborne Illness  
Antibiotic Resistant Infections

**Tobacco, Alcohol and Substance Use**

Tobacco Use  
Alcohol Binge Drinking - Adults  
Alcohol Use – Youth  
Substance Use Disorders and Treatment –  
Adults  
Drug Use - Youth  
Medical Cannabis  
Opioid Misuse and Death  
Drug Overdose Deaths

**Injury**

Injury Death  
Injury - Unintentional  
Injury - Work Related  
Injury - Fall Related  
Injury - Firearms  
Injury - Household Poisonings  
Injury - Motor Vehicle  
Injury - Self Harm

**Population (context only)**

Total Population  
Population by Age, Race, Gender  
Foreign Born and Refugee Arrivals  
Disabilities  
Veterans  
Census Participation  
Voter Participation

# Poverty - Children

## DESCRIPTION

Children are more vulnerable to the consequences of living in poverty, such as environmental lead exposure, vision and hearing problems, and mental health issues.<sup>1</sup> About one in four youth under 18 in Ramsey County (24 percent), and 23 percent of children under five live below the poverty line. This is higher than both the state and national average.<sup>2</sup>

## HOW ARE WE DOING

In 2016 in the U.S., 21.2 percent of children under 18 were living below the poverty threshold compared to Minnesota at 13.9 percent and Ramsey County at 23.7 percent poverty in that age group.<sup>2</sup> Child poverty in Ramsey County has decreased slightly over the past five years yet remains the highest in the 7-county metro area. Child poverty is not equally distributed across Ramsey County cities. In 2016, Lauderdale had the highest percentage of children living in poverty (31.2 percent) which may be due to the large number of married student housing that lies within the borders of this small city. Saint Paul has the second highest child poverty rate (30.5 percent) with more children living in areas of concentrated poverty than other areas of the county. For young children (under five), Saint Paul has the highest percentage living in poverty (29.2 percent), with Falcon Heights closely following (26.9 percent). The northern suburbs of Ramsey County have less poverty than the suburbs that lie closer to the urban areas of Saint Paul and Minneapolis.<sup>2</sup>

## BENCHMARK INDICATOR

Healthy People 2020<sup>2</sup>: Reduce the proportion of children aged 0-17 years living in poverty.

U.S. Target: Zero percent.

## DISPARITIES

Children are particularly vulnerable to the effects of poverty when living in areas of concentrated poverty where 40 percent or more of residents live below 185 percent of the federal poverty threshold.<sup>1</sup> In the past 15 years, areas of concentrated poverty have increased across the Twin Cities. Characteristics of poverty areas in the metro show that they are more likely to be home to immigrants and refugees, people of color and people without a high school diploma or GED. Children growing up in these areas have many assets like cultural vibrancy and being multilingual.<sup>3</sup> However, research also demonstrates that concentrated poverty can have negative effects on children's physical and mental health, as well as cognitive abilities making them more likely to remain in poverty as they grow up.<sup>4</sup>

## RISK FACTORS

Children in Minnesota are more likely to live in poverty if they: are under the age of six; are children of color; have immigrant parents; live in a single parent household; live in rental property; or have parents without a high school degree.<sup>5</sup>

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

Ramsey County provides financial assistance to families living in poverty through its Minnesota Family Investment Program (MFIP), Diversionary Work Program, and Supplemental Nutrition Assistance Program (SNAP). Families may also receive Emergency (continued on back)

## Information to note

- About one in four children in Ramsey County live in poverty.
- The Ramsey County city with the highest child poverty rate was Lauderdale, where 31.2% of children lived in poverty in 2016.

## Identified by the community

*"None of my family member [sic] know English, this keeps us from getting adequate resources. It's even harder when your children are also having difficulty with the language and cannot help you."*

Jobs and income were mentioned 340 times (16%) as an important factor to the community's health.

<sup>1</sup> Minnesota Department of Health. [https://apps.health.state.mn.us/mndata/poverty\\_basic](https://apps.health.state.mn.us/mndata/poverty_basic). Accessed February 2018.

<sup>2</sup> U.S. Census American Community Survey 2012-2016. Web Site. [https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS\\_16\\_5YR\\_S1701&prodType=table](https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_16_5YR_S1701&prodType=table). February 2018.

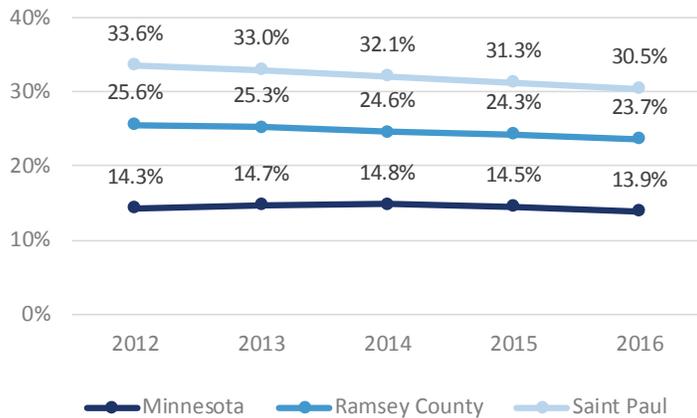
<sup>3</sup> Minnesota State Demographic Center. The Economic Status of Minnesotans: A Chartbook with data for 17 cultural groups. January 2016. <https://mn.gov/bms-stat/assets/the-economic-status-of-minnesotans-chartbook-msdc-jan2016-post.pdf>. Accessed February 2018.

<sup>4</sup> Metropolitan Council. <https://metrocouncil.org/getattachment/f51199b2-1a77-4c4e-97a8-d9d47b75cd4f/>. Accessed February 2018.

<sup>5</sup> National Center for Children in Poverty. [http://www.nccp.org/publications/pub\\_1073.html](http://www.nccp.org/publications/pub_1073.html). Accessed February 2018.

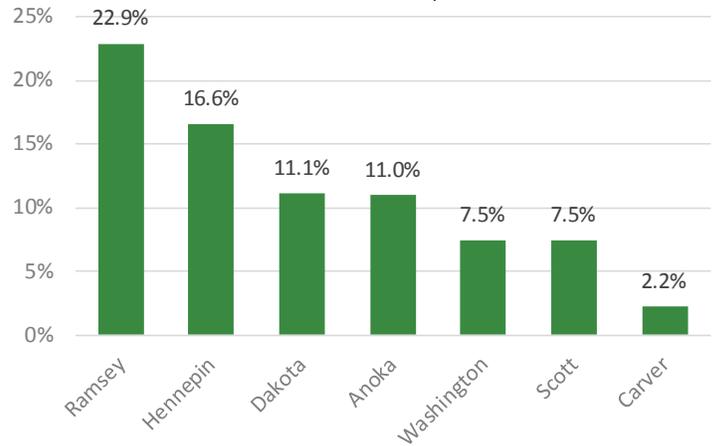
Assistance to help with utility shut-off or to prevent eviction. Most families receiving MFIP are referred to Ramsey County Workforce Solutions for help finding employment.

### Children Under 18 Living in Poverty during Past 12 Months



Source: U.S. Census American Community Survey 2012-2016.<sup>6</sup>

### Children Under Five Living in Poverty, Metro Counties, 2016



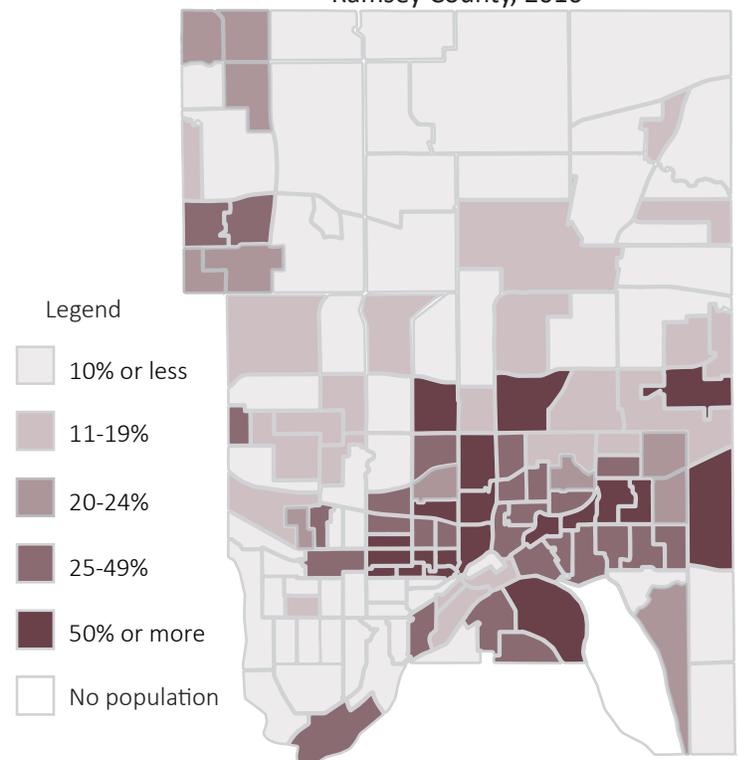
Source: U.S. Census American Community Survey 2012-2016.<sup>6</sup>

### Children Living in Poverty by City, Ramsey County, 2016

	Children Under 18	Children Under 5
Arden Hills	2.9%	0.0%
Falcon Heights	13.8%	26.9%
Gem Lake	0.0%	0.0%
Lauderdale	31.2%	14.0%
Little Canada	11.4%	4.5%
Maplewood	15.9%	12.0%
Mounds View	18.4%	12.0%
New Brighton	20.9%	20.7%
North Oaks	0.0%	0.0%
North St. Paul	20.8%	22.8%
Roseville	17.6%	18.7%
St. Anthony	20.7%	12.2%
Saint Paul	30.5%	29.2%
Shoreview	4.5%	4.5%
Vadnais Heights	9.5%	14.3%
White Bear Twntship	5.7%	3.1%
White Bear Lake	8.2%	7.5%

Source: U.S. Census American Community Survey 2012-2016.<sup>6</sup>

### Children Living in Poverty by Census Tract, Ramsey County, 2016



Source: U.S. Census American Community Survey 2012-2016.<sup>6</sup>

<sup>6</sup> U.S. Census American Community Survey. [https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS\\_16\\_5YR\\_S1701&prodType=table](https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_16_5YR_S1701&prodType=table). Accessed February 2018.

## DESCRIPTION

Poverty is strongly linked to poor health, shorter life expectancy, infant mortality and mental health disorders. Low-income adults have higher rates of heart disease, diabetes, stroke, COPD, kidney and liver disease, and other chronic disorders than wealthier individuals.<sup>1</sup> Those living in poverty are more likely to live in areas with poor quality housing (including lead-based paint), have less access to healthy foods, and live in close proximity to traffic and crowding.<sup>2</sup> Illness can also cause or perpetuate poverty by straining household savings, reducing income through lost employment and disrupting education.<sup>3</sup> The relationship between health and income is described as a “gradient;” people at the highest levels of poverty experience the worst health outcomes.<sup>4</sup>

## HOW WE ARE DOING

Ramsey County has a higher rate of poverty (16 percent) than any other county in the metro area, with the percent of population living below the poverty level varying by city from a low of 2 percent in Gem Lake to a high of 21.6 percent in Saint Paul. Poverty varies by age, race/ethnicity, gender and education: those under 18 years of age are three times as likely to live in poverty than those 65 years or older; Asian, Hispanic or Latino, and those who self-report as being of two or more races are approximately three times more likely to live in poverty than white people, while Black/African-American and American Indian individuals are four times more likely; the number of people with less than a high school education who live in poverty is more than twice the number for people who have a bachelor’s degree or higher.

## BENCHMARK INDICATOR

Healthy People 2020<sup>5</sup>: Reduce the proportion of persons living in poverty.  
U.S. Target: 14.3 percent.

## DISPARITIES

Age, gender, race, ethnicity, disability, educational attainment and English language fluency are all correlated with poverty status.<sup>6</sup> Racial inequity related to poverty is high in Ramsey County. More than one in three African-American and American Indians live in poverty compared to one in 10 white residents.<sup>3</sup> Women are also more likely to live in poverty than men in Ramsey County. In general, Ramsey County residents with higher education are less likely to live below the poverty line than residents who do not have a high school or GED diploma. However, women with an associate degree or some college are more likely to live in poverty than men who don’t have a high school degree or equivalency.

## RISK FACTORS

While personal characteristics are often credited for contributing to one’s likelihood of living in poverty (such as not graduating from high school, being un- or under-employed, having children while unmarried or younger than 21, and being divorced or growing up in a single-parent household), other research points to larger systemic and societal factors such

## Information to note

- Ramsey County has more resident living in poverty (16%) than any other county in the metro area.
- Children (24%) are three times more likely to live in poverty than seniors (8%).
- Ramsey County African-American (36%) and American Indian (36%) residents are four times more likely to live in poverty than whites (9%).

<sup>1</sup> Woofe S, Aron L, Dubay L, Simon S, Zimmerman E, Luk K. How are income and wealth linked to health and longevity? Urban Institute. 2015. <https://www.urban.org/sites/default/files/publication/49116/2000178-How-are-Income-and-Wealth-Linked-to-Health-and-Longevity.pdf>. Published April 2015. Accessed August 8, 2018.

<sup>2</sup> Poverty and Income. Minnesota Department of Health. <https://apps.health.state.mn.us/mndata/poverty>. Accessed September 11, 2017.

<sup>3</sup> Poverty and Health. The World Bank. <http://www.worldbank.org/en/topic/health/brief/poverty-health>. Published August 25, 2014. Accessed August 8, 2018.

<sup>4</sup> Deaton, A. Policy implications of the gradient of health and wealth. Health Affairs. 2002;21(2). <https://www.healthaffairs.org/doi/10.1377/hlthaff.21.2.13>. Published March 1, 2002. Accessed August 8, 2018.

<sup>5</sup> Proportion of persons living in poverty. Healthy People 2020. [https://www.healthypeople.gov/node/5249/data\\_details#revision\\_history\\_header](https://www.healthypeople.gov/node/5249/data_details#revision_history_header). Accessed August 2018.

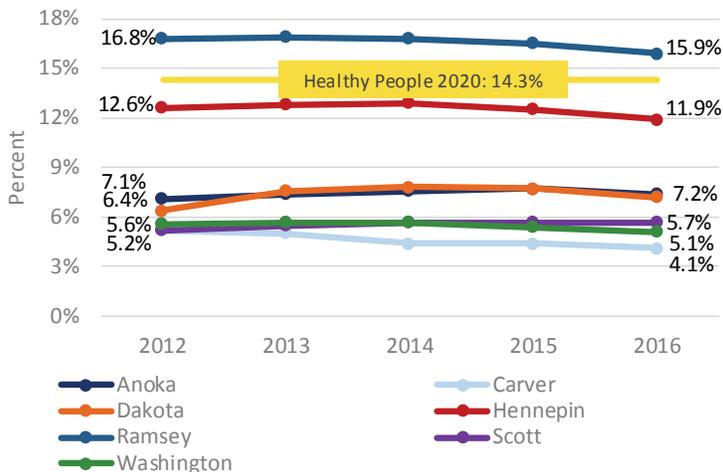
<sup>6</sup> Selected Characteristics of people at specified levels of poverty in the past 12 months 2012-2016 American Community Survey 5-year estimates. U.S. Census Bureau. [https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS\\_16\\_5YR\\_S1703&prodType=table](https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_16_5YR_S1703&prodType=table). Accessed September 12, 2017.

as institutional racism, racial disparities in the educational and criminal justice systems, employment barriers and other social determinants as being significant factors in determining whether an individual experiences poverty or not.<sup>7</sup>

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

Ramsey County provides financial assistance to families living in poverty through the Minnesota Family Investment Program (MFIP), Diversionary Work Program, and Supplemental Nutrition Assistance Program (SNAP). Families may also receive emergency assistance to help with utility shut-off or to prevent eviction. Most families receiving MFIP are referred to Ramsey County Workforce Solutions for help in finding a job.

People of All Ages in Poverty Over Time, 7-county Metro



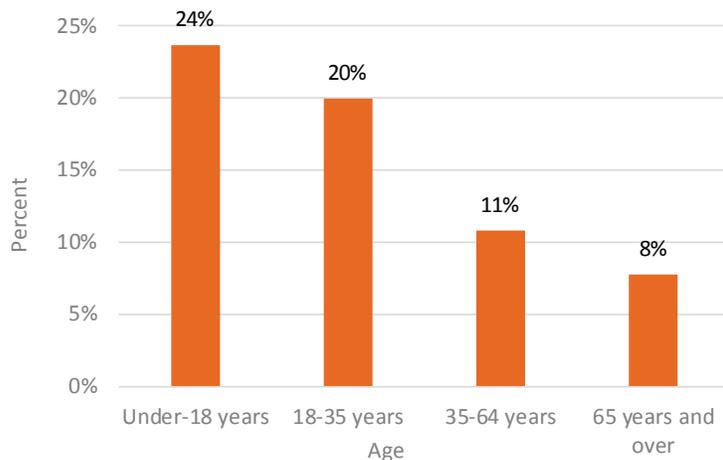
Source: U.S. Census American Community Survey 5-year estimates.<sup>8</sup>

Ramsey County City	Percent below Poverty in the last 12 months (2016)
Gem Lakes	2.0%
North Oaks	2.6%
White Bear Township	3.5%
Shoreview	4.3%
Arden Hills	4.4%
Vadnais Heights	6.0%
White Bear Lake	6.2%
Maplewood	9.2%

Ramsey County City	Percent below Poverty in the last 12 months (2016)
Little Canada	10.0%
New Brighton	10.9%
Roseville	11.5%
Falcon Heights	11.7%
Saint Anthony	12.0%
Mounds View	12.7%
North Saint Paul	13.7%
Lauderdale	17.6%
Saint Paul	21.6%

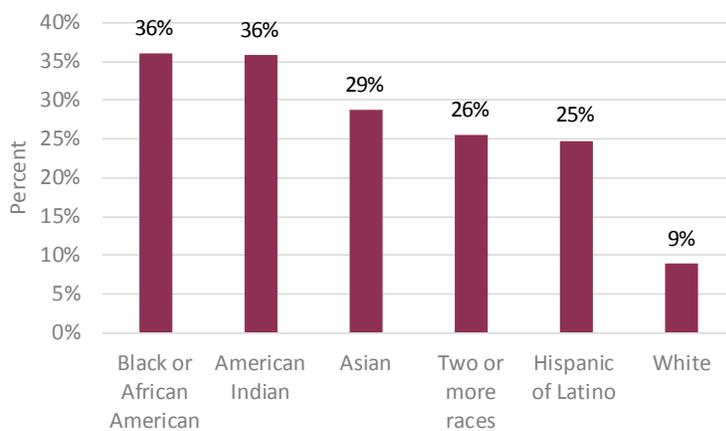
Source: U.S. Census American Community Survey 5-year estimates.<sup>8</sup>

People Living in Poverty by Age Group, Ramsey County, 2016



Source: U.S. Census American Community Survey 5-year estimates.<sup>8</sup>

Poverty by Race/Ethnicity, Ramsey County, 2016



Source: U.S. Census American Community Survey 5-year estimates.<sup>8</sup>

<sup>7</sup> Rodrigue E, Reeves RV. Five bleak facts on black opportunity. Brookings Institution. 2015. <https://www.brookings.edu/blog/social-mobility-memos/2015/01/15/five-bleak-facts-on-black-opportunity/>. Published January 15, 2015. Accessed August 15, 2018.

<sup>8</sup> U.S. Census. American Community Survey 5-year estimates. [https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?\\_ft=table](https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?_ft=table). Accessed August 2018.

# Areas of Concentrated Poverty

## DESCRIPTION

Concentrated poverty is known to have a negative influence on residents' economic mobility and overall health and well-being. Current estimates from the U.S. Census Bureau show a decline in the metro area's poverty rate (19 percent) in 2016 after rising during the recession from 2010-2013 to 23 percent. While this trend is positive, the metro's poverty rate remains higher than it was in 2000 (16 percent). Areas of Concentrated Poverty (census tracts where at least 40 percent of residents have incomes below 185 percent of the federal poverty threshold) have grown. In 2016, the threshold for 185 percent of federal poverty was \$45,027 for a family of four and \$23,099 for an individual under 65 living alone. Concentrated poverty fluctuates over time, but in 2012-2016 about 30 percent of residents in the metro area lived in an Area of Concentrated Poverty.<sup>1</sup>

## HOW WE ARE DOING

In 2016, 162,777 individuals including 28,186 families throughout Ramsey County had incomes below 185 percent of the poverty level.<sup>2</sup> In 2006-2010, only St. Paul and Lauderdale in Ramsey County had census tracts with Areas of Concentrated Poverty. In 2012-2016, Roseville joined the metro cities with Areas of Concentrated Poverty and Lauderdale dropped off the list. Thirty-two census tracts in Ramsey County met the threshold for an Area of Concentrated Poverty all six years 2011-2016, leaving little doubt that these are high poverty areas. In contrast, 17 census tracts were identified as an Area of Concentrated Poverty, one to three years, signaling elevated poverty but perhaps with fewer overarching negative impacts than more entrenched poverty. Slightly more than 40 percent of St. Paul residents lived within 185 percent of the federal poverty threshold in 2015, an increase from 38.7 percent in the previous five-year period.<sup>3</sup>

## DISPARITIES

Concentrated poverty intersects with race and ethnicity. Four in every five metro Areas of Concentrated Poverty were also census tracts where at least half of the residents are people of color. In fact, a person of color regardless of their income is as likely to live in an Area of Concentrated Poverty as a person living in poverty due to race-based barriers to housing choice. There are ongoing signs that concentrated poverty is receding in the metro but not in areas where a majority of residents are people of color.<sup>3</sup>

## RISK FACTORS

Research points to larger systemic and societal factors such as institutional racism, racial disparities in the educational and criminal justice systems, employment barriers and other social determinants as being significant factors in determining whether an individual experiences poverty.<sup>4</sup>

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

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## Information to note

- In the metro area, 4 of every 5 Areas of Concentrated Poverty are also census tracts where at least half of residents are people of color.
- Ramsey County's Areas of Concentrated Poverty grew 20% between 2010 and 2016.

<sup>1</sup> Concentrations of Poverty: Growing and Suburbanizing in the Twin Cities Region. Metropolitan Council. 2015. <https://metro council.org/getattachment/f51199b2-1a77-4c4e-97a8-d9d47b75cd4f/>. Published December 2015. Accessed September 2018.

<sup>2</sup> Poverty Status in the past 12 months. 2012-2016 American Community Survey five-year estimates. U.S. Census Bureau. [https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS\\_16\\_5YR\\_S1701&prodType=table](https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_16_5YR_S1701&prodType=table). Accessed September 2018.

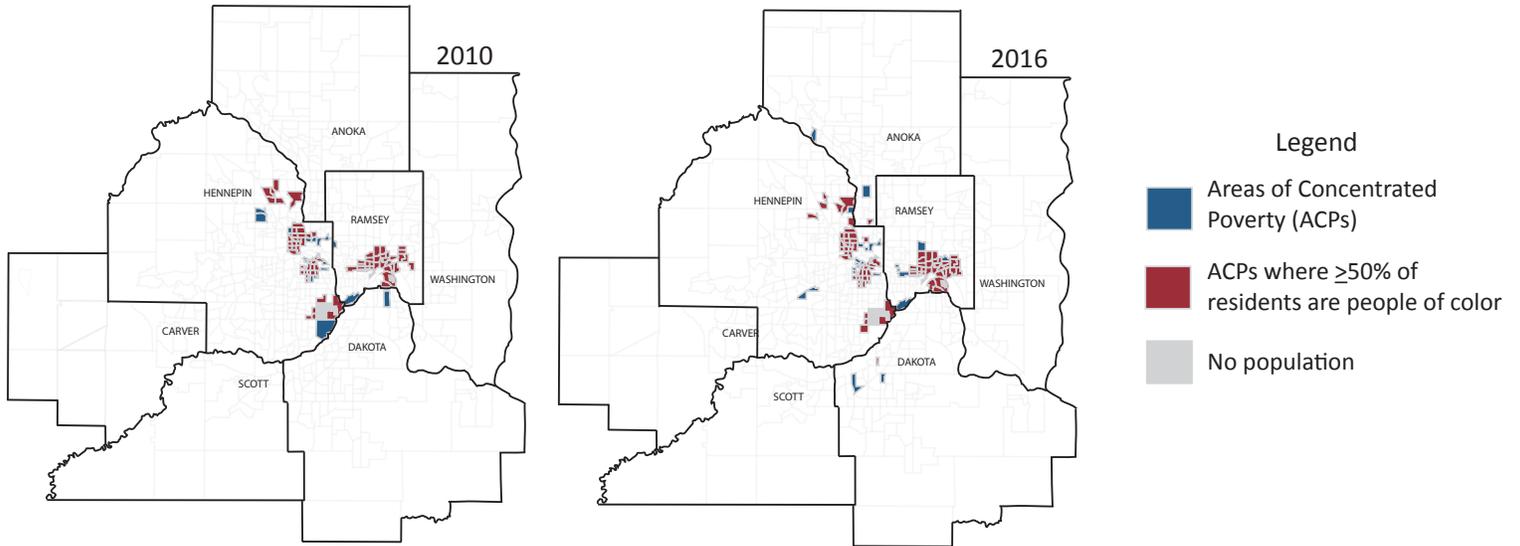
<sup>3</sup> Areas of Concentrated Poverty in 2016. Metropolitan Council. 2018. <https://metro council.org/Data-and-Maps/Publications-And-Resources/MetroStats/Census-and-Population/Areas-of-Concentrated-Poverty-in-2016.aspx>. Published in February 2018. Accessed September 2018.

<sup>4</sup> Rodrigue E, Reeves RV. Five bleak facts on black opportunity. The Brookings Institution. 2015. <https://www.brookings.edu/blog/social-mobility-memos/2015/01/15/five-bleak-facts-on-black-opportunity/>. Published January 15, 2015. Accessed August 15, 2018.

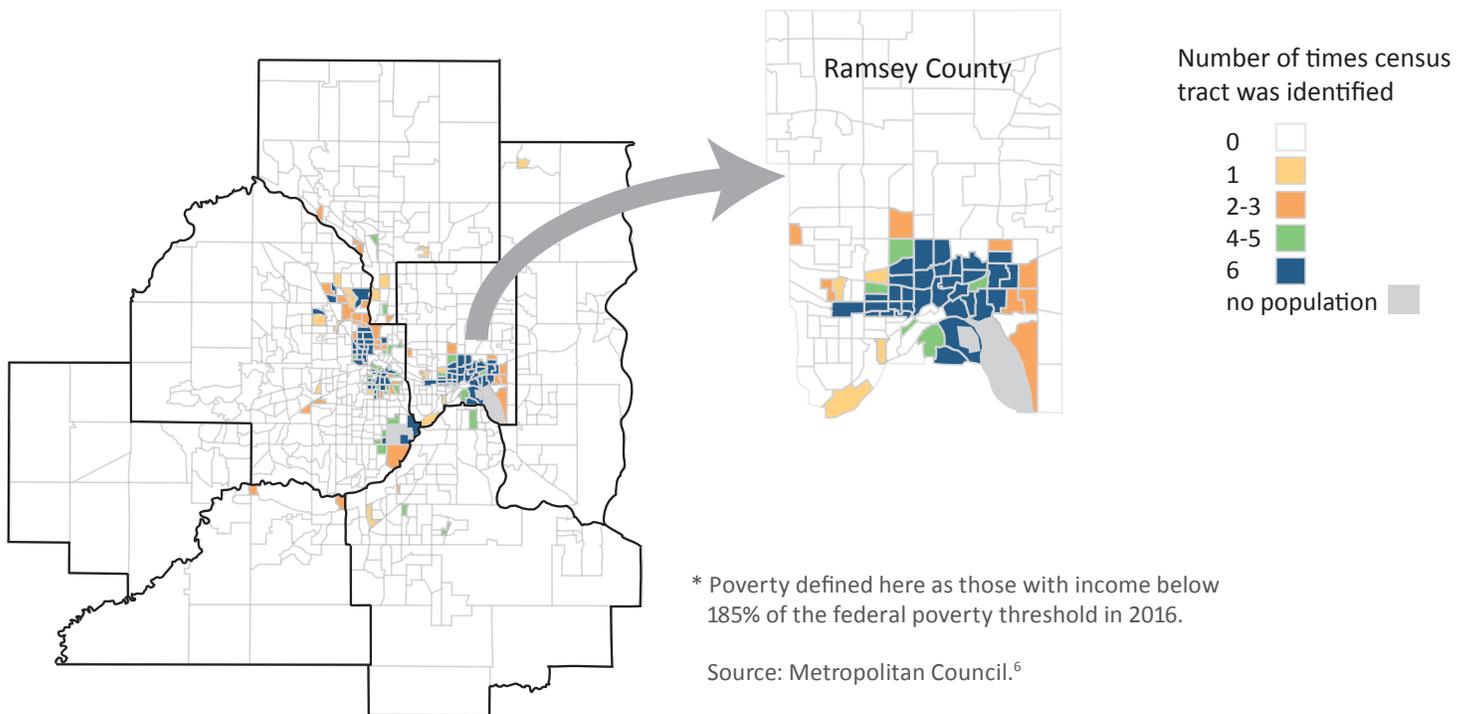
## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

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### Areas of Concentrated Poverty, 7-County Metro



### Census tracts identified as an Area of Concentrated Poverty\* over past 6 years (2011-2016), Metro Counties



<sup>5</sup>Metropolitan Council analysis of U.S. Census Bureau, American Community Survey Five-Year Estimates, 2006-2010, 2012-2016

<sup>6</sup>Metropolitan Council analysis of U.S. Census Bureau, American Community Survey Five-Year Estimates, 2007-2011, 2008-2012, 2009-2013, 2010-2014, 2011-2015, 2012-2016.

# Schools - Free/Reduced Priced Meals

## DESCRIPTION

Free and reduced price lunch (FRPL) plans are available through the National School Lunch Program to any student whose family income is between 130 and 185 percent of, or below the poverty threshold. In public health, these rates are used to assess needs or identify vulnerable populations. The data are also used to classify schools; a student population with 25 percent or fewer students eligible for FRPL is considered a low poverty school, and a student body of 75 percent or more eligible students is considered a high poverty school.<sup>1</sup>

## HOW ARE WE DOING

In Ramsey County, more than half of students qualify for FRPL. Data from public schools over the past nine years shows little fluctuation, with an average of 55.7 percent of students qualifying for FRPL, compared to the Minnesota rate of 36.8 percent.<sup>2</sup> Another way to use FRPL data are to look at the percent of students eligible for ‘free’ lunch (below 130 percent of poverty), separately from those eligible for ‘reduced priced’ lunch (between 130 percent and 185 percent of the poverty line). This identifies income gaps within schools. In Ramsey County in 2016, the population of students that are free lunch eligible (higher poverty requirements) was 48.7 percent. This was six times the size of reduced priced lunch eligible students at 8.2 percent. The highest rates were found in Saint Paul Public Schools and in charter schools.

## DISPARITIES

Schools with low socioeconomic status students are significantly less likely to offer salads and healthy foods as schools with middle or high socioeconomic status students.<sup>3</sup> Charter schools have the largest population of free lunch eligible students in Ramsey County. In 2016, they made up 60 percent of the student population at their schools.

## RISK FACTORS

While participation levels have been steady the past several years, there was a significant increase in students eligible for Free and Reduced lunch after the 2008 recession that weakened the economy.<sup>4</sup> Increases in prices for “paid meals” has also contributed to the rising Free/Reduced Lunch percentages.<sup>4</sup>

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

Families receiving the Supplemental Nutrition Assistance Program are presumptively eligible for free or reduced price lunch and can use proof of SNAP eligibility when applying for free or reduced priced lunch. Ramsey County libraries provide free lunches to children during the summer to fill the nutritional gap during the break from school.

(continued on next page)

## Information to note

- Compared to all of Minnesota, Ramsey County’s student eligibility for Free and Reduced Lunch is about 34% higher than the state’s average.
- Public schools in Ramsey County have about 5 times as many free/reduced eligible students as nonpublic schools.

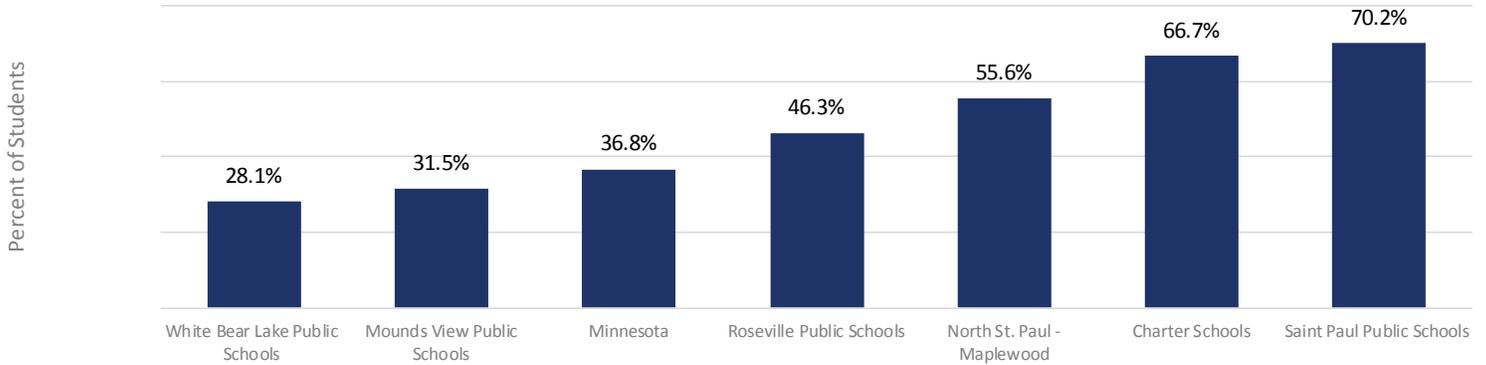
<sup>1</sup> Free and Reduced Price Lunch Eligibility. Minnesota Department of Health Web site. <https://apps.health.state.mn.us/mndata/lunch-metadata#eligible>. Accessed June 15, 2017.

<sup>2</sup> Data Reports and Analytics. Minnesota Department of Education Web site. <http://w20.education.state.mn.us/MDEAnalytics/Data.jsp>. Accessed June 15, 2017.

<sup>3</sup> Improvements and Disparities in Types of Foods and Milk Beverages Offered in Elementary School Lunches, 2006–2007 to 2013–2014. Centers for Disease Control and Prevention Web site. [https://www.cdc.gov/pcd/issues/2016/15\\_0395.htm](https://www.cdc.gov/pcd/issues/2016/15_0395.htm). Accessed June 15, 2017.

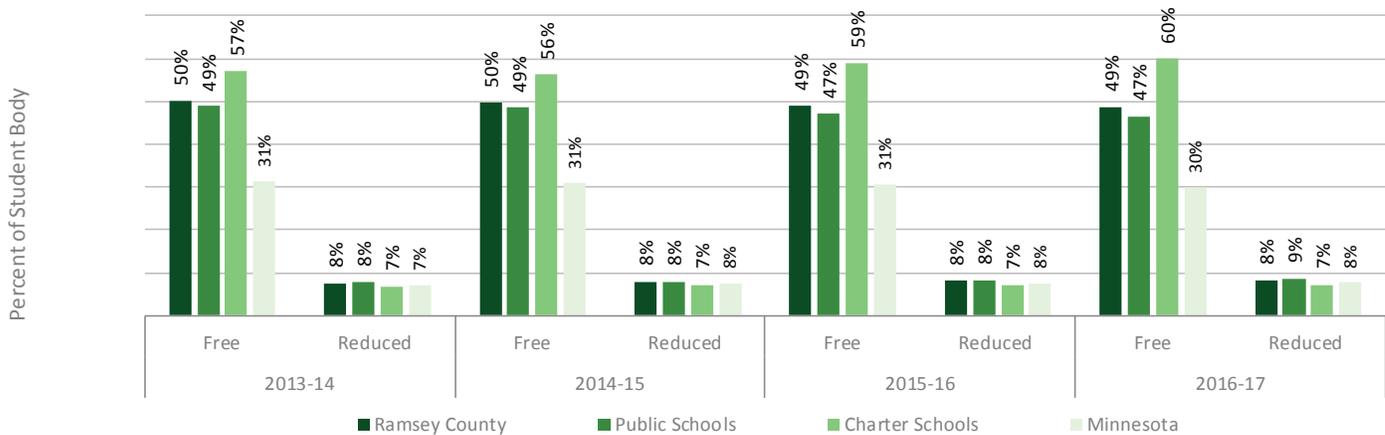
<sup>4</sup> National School Lunch Program: Trends and Factors Affecting Student Participation. Food Research and Action Center Web site. [http://frac.org/wp-content/uploads/national\\_school\\_lunch\\_report\\_2015.pdf](http://frac.org/wp-content/uploads/national_school_lunch_report_2015.pdf). Accessed June 15, 2017.

Student Population Eligible for Free/Reduced Priced Lunch, Ramsey County, 2016-17



Source: Data Reports and Analytics. Minnesota Department of Education Web site.<sup>5</sup>

Free and Reduced Priced Eligible Student Rates, Ramsey County, 2013-17



Source: Data Reports and Analytics. Minnesota Department of Education Web site.<sup>5</sup>

<sup>5</sup> Data Reports and Analytics. Minnesota Department of Education Website. <http://w20.education.state.mn.us/MDEAnalytics/Data.jsp>. Accessed June 15, 2017.

# Household Income

## DESCRIPTION

Household income is defined by the census as money received by household members prior to taxes, social security and Medicare contributions. It does not include benefits households receive such as food stamps, Earned Income Tax Credit or subsidized housing.<sup>1</sup> Median household income for a community is the midpoint dollar amount where half of the households have income below that amount and half have income higher. Median household income is frequently used as an indicator of a population's wealth.<sup>2</sup>

## HOW WE ARE DOING

Ramsey County has the lowest household income in the seven-county metro area (\$57,717), followed by Hennepin, Anoka, Dakota, Washington, Carver, and Scott with the top median income (\$90,196).<sup>3</sup> The suburbs in metro counties have some of the highest median incomes in Minnesota.<sup>4</sup> In Ramsey County, North Oaks has the highest median household income (\$151,397) and Lauderdale has the lowest (\$44,345). There have been striking changes in household income over the past several years in some Ramsey County cities; Gem Lake experiencing rapid income growth (+37%) and Lauderdale experiencing losses (-8%).<sup>4</sup>

## DISPARITIES

The distribution of income in Ramsey County has changed over the past 16 years following national trends of a shrinking middle class and growing disparity between the highest and lowest incomes.<sup>4</sup> In 2000, most households in Ramsey County had an income between \$35,000- \$100,000, with very few households in the lowest and highest income brackets.<sup>4</sup> In 2016, this distribution plateaued revealing greater income inequality. Income inequality in Ramsey County is felt particularly strongly within communities of color. While the trend of white people making more than people of color is true both locally and nationally, the difference in household earnings is steeper in Ramsey County than in the rest of the U.S. This is especially true of Asian residents, who in the U.S. make almost \$15,000 more than whites, but in Ramsey County make almost \$17,000 less.<sup>4</sup> The gender pay gap is also very present in the county. Based on levels of educational attainment, female income is on average, about \$9,500 less than males annually.

## RISK FACTORS

There is a consistent trend that individuals with higher education have higher incomes. An individual with a graduate degree is likely to make \$44,396 over a person without a high school degree and \$16,025 more than a person with a bachelor's degree.<sup>4</sup>

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

text

## Information to note

- Ramsey County has the lowest household income in the seven-county metro area. The distribution of income has changed over the past 15 years with growing disparities between the highest and lowest incomes.
- Ramsey County women's income is about \$9,500 less than men each year. The difference in household earnings between whites and residents of color is larger in Ramsey County than in the rest of the U.S.
- Gem Lake (38%) and Falcon Heights (23%) have experienced the greatest income growth in the past five years. Lauderdale (-15%), Mounds View (-4%) and Shoreview (-2%) have experience declines in household income in the past five years.

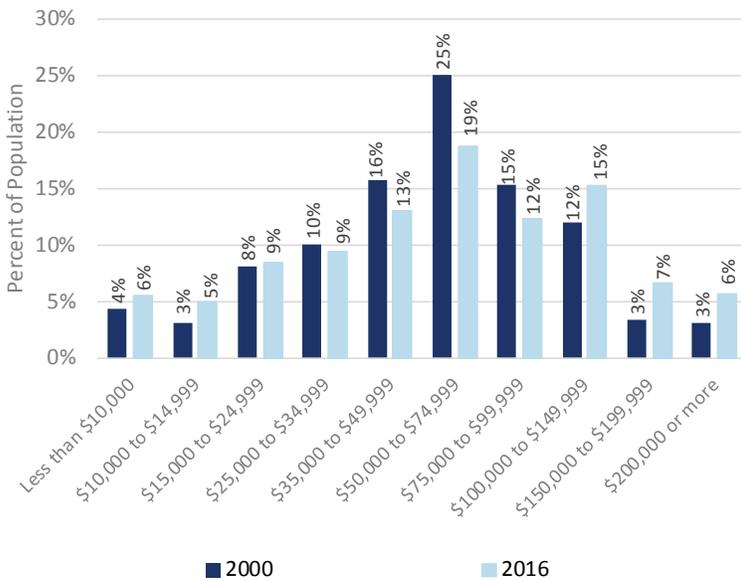
<sup>1</sup> United States Census Bureau. About: Income website. <https://www.census.gov/topics/income-poverty/income/about.html>. Accessed September 18, 2017.

<sup>2</sup> Minnesota Department of Health. White Paper on Income and Health. (March 2014). <http://www.health.state.mn.us/divs/opa/2014incomeandhealth.pdf>. Accessed September 18, 2017.

<sup>3</sup> American Community Survey. <https://factfinder.census.gov/> Accessed September 18, 2017.

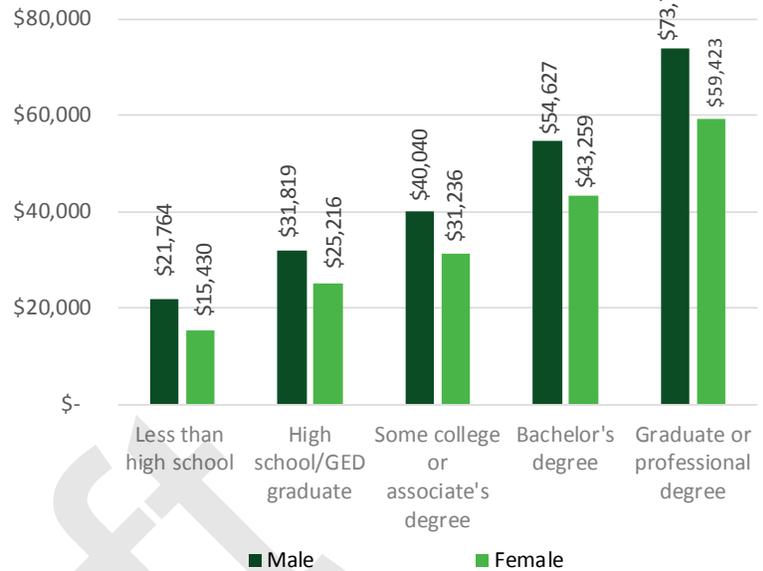
<sup>4</sup> Legg, Tom and Nguyen, Ngoc (Jenny). Widening Inequality in Minnesota: A County-by-County Analysis. (May 2015). <http://growthandjustice.org/publication/WideningInequalityMN.pdf>. Accessed September 18, 2017.

### Change in Distribution of Annual Household Income, Ramsey County, 2000-2016



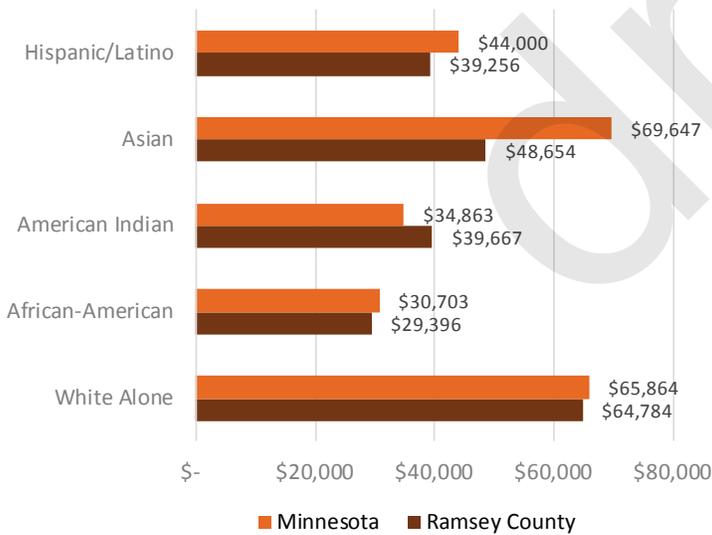
Source: American Community Survey. U.S. Census Bureau.<sup>5</sup>

### Median Income by Educational Attainment and Gender, Ramsey County, 2016



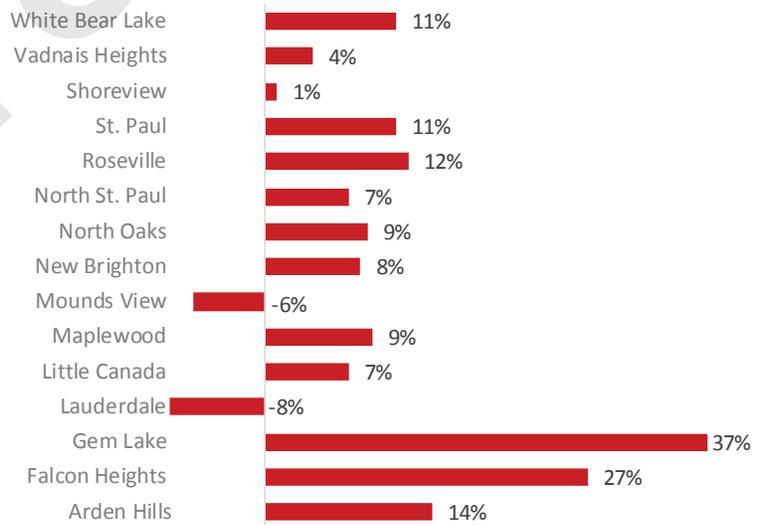
Source: American Community Survey 5-year Estimates. U.S. Census Bureau.<sup>6</sup>

### Median Household Income, Ramsey County, 2016



Source: American Community Survey 5-year Estimates. U.S. Census Bureau.<sup>6</sup>

### Percent Change in Median Household Income, Ramsey County Cities, 2010 and 2016



Source: American Community Survey 5-year Estimates. U.S. Census Bureau.<sup>6</sup>

<sup>5</sup> 2000-2016 American Community Survey 1-Year. Estimates. U.S. Census Bureau Web site. <https://factfinder.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t>. Accessed January 29, 2018.

<sup>6</sup> 2012-2016 American Community Survey 5-Year Estimates. U.S. Census Bureau Web site. <https://factfinder.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t>. Accessed January 10, 2017.

# Unemployment

## DESCRIPTION

Unemployment is a key indicator of economic health. The most frequently used definition of unemployment compares the number of individuals over age 16 who were employed in the past week over the number of individuals over age 16 who sought work in the past four weeks.<sup>1</sup> This measure has been criticized for not including discouraged workers who have given up looking for work in the past month or the past year. A broader definition of unemployment includes all individuals who have been seeking work in the past year as well as part time workers seeking full time work. The analysis for this indicator is based on the primary unemployment measure and self-disclosed unemployment.

## HOW WE ARE DOING

Nationally, the unemployment rate has come down to 4.1 percent, and in Minnesota it's even lower at 3.1 percent.<sup>2</sup> Minnesota posted its lowest unemployment rate since July 2000 in November 2017<sup>3</sup> and ranks fifth in the nation for labor force participation.<sup>4</sup> Ramsey County unemployment is similarly low with 2.4 percent reported in November 2017.<sup>5</sup> This rate confirms that Ramsey County has recovered from a peak of nearly 8 percent unemployment during the Great Recession.<sup>6</sup> One caveat to this success is that while most Ramsey County residents are employed, many are commuting outside of the county for work. Ramsey County is home to a large number of jobs, however, only 34 percent of residents both live and work in Ramsey.<sup>7</sup> Most jobs located within Ramsey County are held by individuals who commute from other counties in the metro area. The largest industries in Ramsey County are health care and social assistance (16.8 percent), educational services (11 percent) and management of companies (8.7 percent).<sup>8</sup>

## DISPARITIES

In the United States, veterans have slightly lower unemployment rate (9.2 percent) compared to civilians (10.3 percent), when averaging across the years of 2012-2016. This is also true in Ramsey County with rates of 6.5 percent and 8.5 percent respectively. Across Minnesota, veterans have a higher unemployment rate (7.8 percent) compared to civilians (6.6 percent).<sup>6</sup> Disparities are also evident when looking at unemployment by race and ethnicity. Unemployment is significantly higher among African-Americans (16 percent) and American Indians (17 percent) compared to unemployment rates among Asians (9 percent) and Whites (5 percent) in Ramsey County.<sup>6</sup>

## RISK FACTORS

Education is a strong predictor of employment. Ramsey County residents without a high school education have an unemployment rate that is 12 percentage points higher than residents with a bachelor's degree. Education likely factors into the higher unemployment experienced by adolescents and young adults. There is a 10 percentage point difference between the age groups 16-19 years and 20-24 years, suggesting that work opportunities increase with age, experience and degree attainment.<sup>6</sup> Individuals who have experienced incarceration are limited by some of the same factors as adolescents, a lack of education and work experience.

- In 2016, the unemployment rate was significantly higher among African-Americans (16%) and American Indians (17%) compared to rates among Asians (9%) and Whites (5%) in Ramsey County.
- Most jobs located within Ramsey County are held by individuals who commute from other counties in the metro area.

<sup>1</sup> Minnesota Employment and Economic Development. Alternative Measures of Unemployment. <https://mn.gov/deed/data/current-econ-highlights/alternative-unemployment.jsp>. Accessed July 2018.

<sup>2</sup> Bureau of Labor Statistics. Labor Force Statistics. <https://data.bls.gov/timeseries/LNS14000000>. Accessed July 2018.

<sup>3</sup> Minnesota Employment and Economic Development. Unemployment Rate Drops to 3.1% in November. <https://mn.gov/deed/newscenter/press-releases/?id=321388>. Accessed July 2018.

<sup>4</sup> Minnesota Employment and Economic Development. Labor Force Participation Rates. <https://mn.gov/deed/data/data-tools/compare-mn/labor/labor-force.jsp>. Accessed July 2018.

<sup>5</sup> Minnesota Employment and Economic Development. Local Unemployment Statistics. <https://apps.deed.state.mn.us/lmi/laus/CurrentStats.aspx>. Accessed July 2018.

<sup>6</sup> American Community Survey. Employment Status. <https://factfinder.census.gov>. Accessed July 2018.

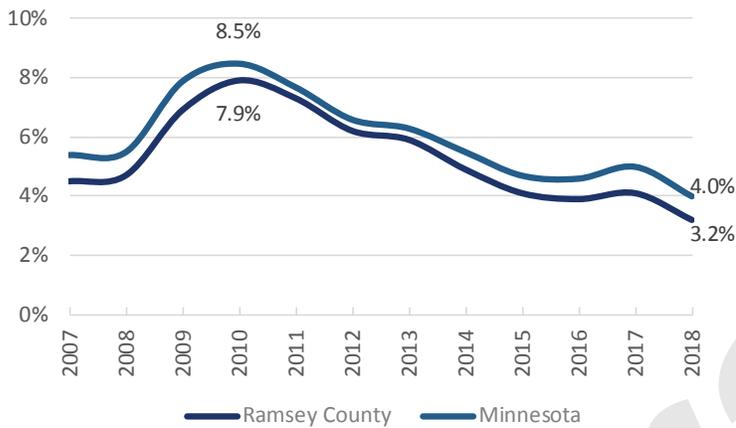
<sup>7</sup> Minnesota Employment and Economic Development. Where is everyone going? Commuting patterns in the Twin Cities. <https://mn.gov/deed/newscenter/publications/review/june-2016/commuting-patterns.jsp>. Accessed July 2018.

<sup>8</sup> Minnesota Employment and Economic Development. Economic Development Region 11: Twin Cities Metro. [https://mn.gov/deed/assets/rp\\_edr11\\_2017\\_tcm1045-133249.pdf](https://mn.gov/deed/assets/rp_edr11_2017_tcm1045-133249.pdf). Accessed July 2018.

## WHAT RAMSEY COUNTY IS DOING

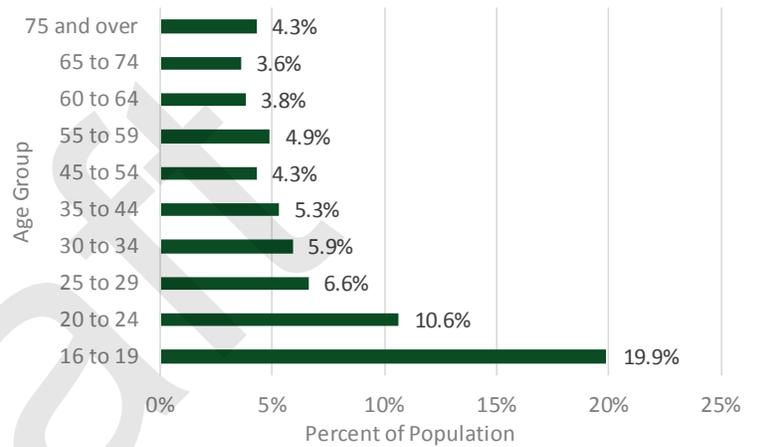
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### Unemployment Rate in January of Each Year



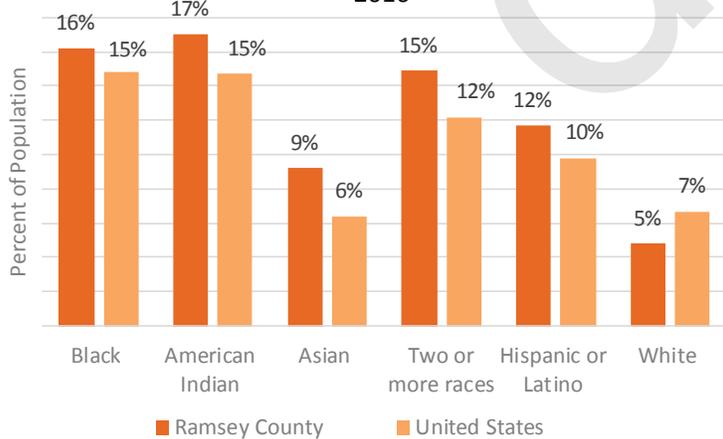
Source: Minnesota Department of Employment and Economic Development.<sup>9</sup>

### Unemployment Rate by Age, Ramsey County 2012 - 2016



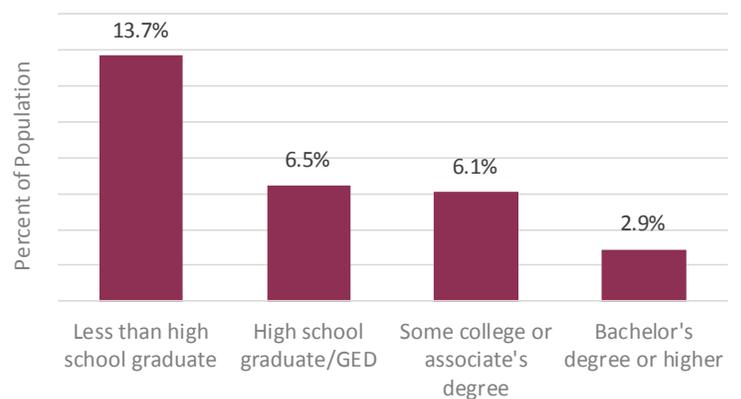
Source: 2012-2016 American Community Survey 5-Year.<sup>10</sup>

### Unemployment Rate by Race and Ethnicity, 2016



Source: 2012-2016 American Community Survey 5-Year.<sup>10</sup>

### Unemployment Rate by Educational Attainment, Ramsey County, 2016



Source: 2012-2016 American Community Survey 5-Year.<sup>10</sup>

<sup>9</sup> Minnesota Department of Employment and Economic Development. <https://mn.gov/deed/data/>. Accessed July 12, 2018.

<sup>10</sup> 2012-2016 American Community Survey 5-Year. Estimates. U.S. Census Bureau. <https://factfinder.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t>. Accessed January 29, 2018.

# Home Values, Age of Homes and Home Ownership

## DESCRIPTION

Residential values in Ramsey County have been accelerating as the housing market recovers from the Great Recession.<sup>1</sup> Apartment properties are increasing in value at a faster pace than other residential properties. Homeowners tend to pay less in monthly housing costs than renters and can accrue wealth if their home increases in value. Having adequate and stable housing for both renters and owners is key for supporting strong communities and a healthy workforce.<sup>2</sup>

## HOW WE ARE DOING

In 2017, the assessed value of all Ramsey County residential property grew by \$1.98 billion. Median home values for single family-residences have been increasing fastest in the North End, Thomas-Dale/Frogstown and East Side neighborhoods of St. Paul and in the suburban areas of Arden Hills, White Bear Township and Shoreview. The increase in rental prices and low vacancy of units is driving strong increases in the market value of apartment buildings. Purchases of apartment complexes had the sharpest growth rate (17.4 percent) in the past year while Ramsey County experienced both new construction and the conversion of existing buildings into rental housing.<sup>1</sup> The value of homes in Ramsey County is modest, with 86 percent of residential housing valued between \$100,000 and \$400,000 and a median sale price of \$200,000 in 2017. There has been minimal new construction of homes in the county, with 72 percent of residential housing constructed before 1980.<sup>3</sup> In Ramsey County, the home ownership rate is 59 percent, which is lower than the Minnesota (70.9 percent) and the national (63.1 percent) rate.<sup>4</sup> In 2016, residents of color in Ramsey County were less likely to own their home: Black/African-American 3.1 percent, American Indian 0.3 percent, Asian 5.9 percent, two or more races 1.2 percent, Hispanic/Latino 3.0 percent compared to white residents (88.5 percent).<sup>3</sup>

## DISPARITIES

The 2008 housing crisis disproportionately affected households of color both nationally and locally. The Greater Eastside neighborhood of St. Paul was one of the hardest hit areas in the state by foreclosure and is now experiencing a rise in home values and sales prices.<sup>3</sup> A national study found that black applicants with high incomes were more than twice as likely as white applicants with low incomes to be denied a home mortgage loan.<sup>5</sup>

## RISK FACTORS

While some new housing has recently been built in Ramsey County, 72 percent of housing was constructed prior to 1980.<sup>3</sup> Children living in these older homes are at greater risk for lead exposure which can affect brain development.<sup>6</sup> Ramsey County is home to a higher percentage of renters (41 percent) than the surrounding counties.<sup>3</sup> Renters are more vulnerable than homeowners to changes in the housing market. High rental demand creates an environment where landlords have many options for tenants and may use screening tests like credit history, income verification, and high security deposits that create barriers for many households.<sup>5</sup>

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

Ramsey County established the Reuse, Recycle and Renovate for Reinvestment Program

## Information to note

- 41% of Ramsey County residents rely on rental housing.
- Between 2016-2017, home prices increased in Ramsey County. Prices for apartment complexes in St. Paul increased the most (17.4%).
- In 2016 African-American residents in Ramsey County were less likely to own their home (3.1%) compared to white residents (88.5%) and Asian residents (5.9%).

<sup>1</sup> Ramsey County Assessor's Office. Letter to community. <https://www.ramseycounty.us/sites/default/files/Property/Assessor%27s%20Office/2017%20Assessor%20Report%202.pdf>. Accessed July 2018.

<sup>2</sup> Housing Overview. Minnesota Compass. <http://www.mncompass.org/housing/overview>. Accessed July 2018.

<sup>3</sup> American Community Survey 2012-2016 5-year estimates. United States Census Bureau. <https://factfinder.census.gov/>. Accessed July 2018.

<sup>4</sup> Data USA. <https://embed.datausa.io/profile/geo/ramsey-county-mn/>. Accessed July 2018.

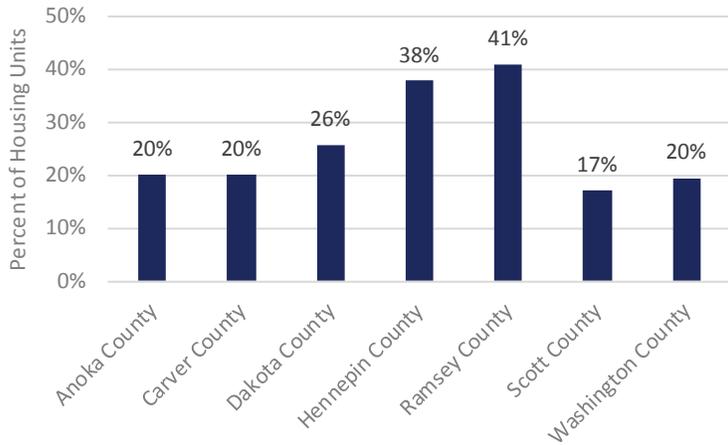
<sup>5</sup> Choice, Place and Opportunity: An Equity Assessment of the Twin Cities Region. Metropolitan Council. <https://metro council.org/Planning/Projects/Thrive-2040/Choice-Place-and-Opportunity/FHEA/FHEA-Sect-4.aspx>. Accessed July 2018.

<sup>6</sup> Risk factors for childhood lead exposure: facts & figures. Minnesota Department of Health. [https://apps.health.state.mn.us/mndata/lead\\_risk](https://apps.health.state.mn.us/mndata/lead_risk). Accessed July 2018.

# Home Values, Age of Homes and Home Ownership

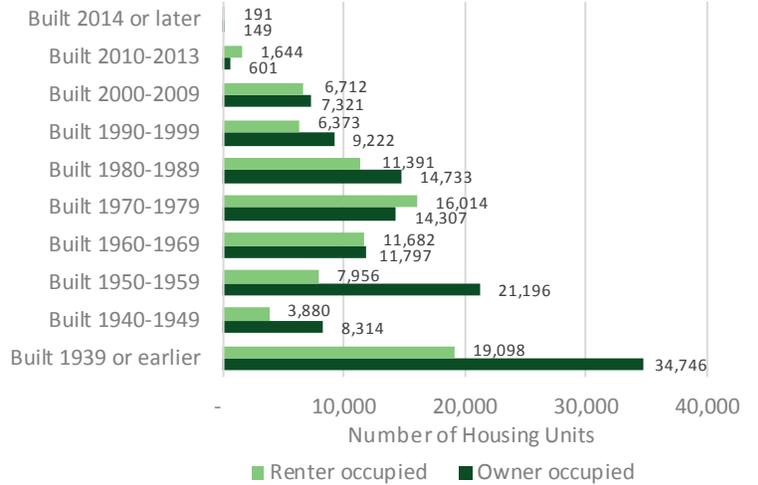
(4R Program) in April 2010. Within the program, tax-forfeited land (TFL) properties can be renovated to correct code violations and fix major repairs to ensure low to moderate income home buyers will not be burdened with heavy repairs during their first five years of ownership.

### Renter Households, 2016



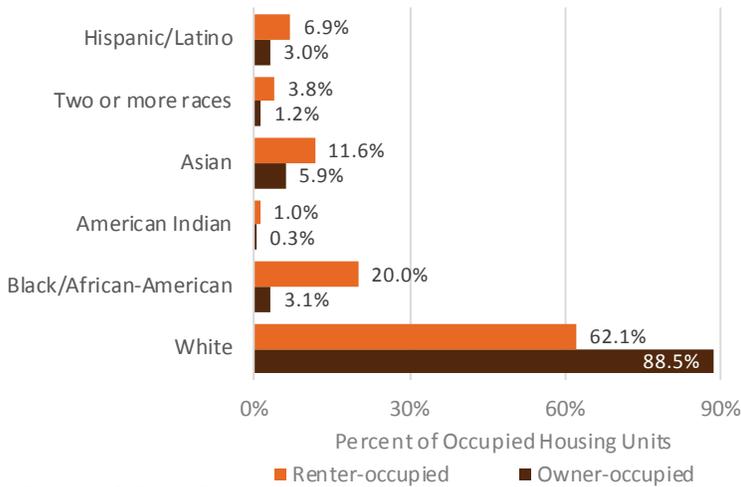
Source: U.S. Census Bureau.<sup>7</sup>

### Age of Housing, Ramsey County



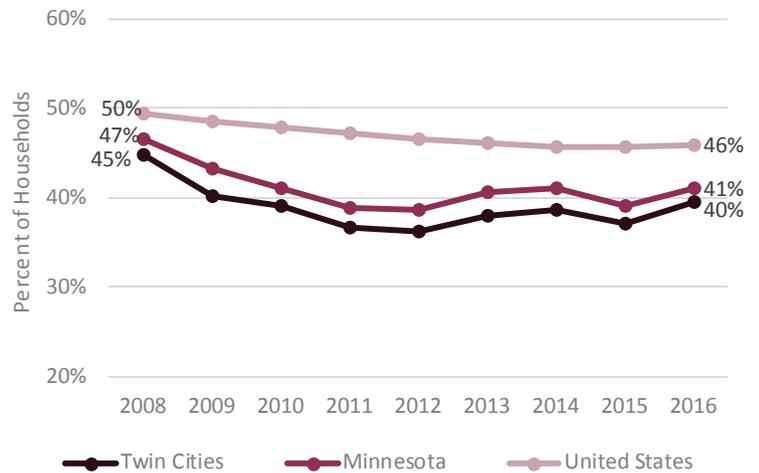
Source: U.S. Census Bureau.<sup>7</sup>

### Housing by Race/Ethnicity, Ramsey County, 2016



Source: U.S. Census Bureau.<sup>8</sup>

### Home Ownership for People of Color Over Time



Source: MN Compass.<sup>9</sup>

<sup>7</sup> 2012-2016 American Community Survey 5-Year Estimates. U.S. Census Bureau.

<sup>8</sup> 2012-2016 American Community Survey 5-Year Estimates. U.S. Census Bureau. [https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS\\_16\\_5YR\\_S2502&prodType=table](https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_16_5YR_S2502&prodType=table). Accessed July 2018.

<sup>9</sup> Homeownership Gap. MN Compass Web site. <http://www.mncompass.org/housing/homeownership-gap#7-5176-g>. Accessed January 17, 2018.

# Housing Cost-Burden and Affordability

## DESCRIPTION

A household is considered cost-burdened when their housing costs exceed 30 percent of their income. Some households spend over 50 percent of their income on housing and are considered severely cost-burdened.<sup>1</sup> Households at all income levels can be cost-burdened yet lower income families are more likely to be consumed by housing costs and struggle to cover basic expenses like food, health insurance or child care. Households often become cost-burdened when they experience a loss of income or when the cost of their housing rises.<sup>2</sup> Affordable housing is when households earning less than the median income in their community (Area Median Income-AMI) are able to pay rental or home ownership costs without becoming cost-burdened.<sup>3</sup>

## HOW WE ARE DOING

Twin Cities cost-burdened households have increased over the past 15 years from one in four families to one in three families.<sup>2</sup> Housing cost-burden peaked during the recession and remains high despite some improvement over the past few years.<sup>1</sup> Ramsey County ranks second among all Minnesota counties for housing cost burden.<sup>1</sup> The most cost-burdened households in the County are: Lauderdale (41 percent), Saint Paul (33 percent) and White Bear Lake (27 percent). The least cost-burdened households are: White Bear Township (14 percent), Vadnais Heights (17 percent) and North Oaks (17 percent).<sup>3</sup> The Metropolitan Council recommends Ramsey County add over 4,000 units of affordable housing by 2020 to avoid more households becoming cost-burdened.<sup>3</sup> Ideally, over half of all new affordable units should be located in Saint Paul. Over the past five years, most owner and renter units added in Saint Paul have been over the affordability threshold for households earning 80 percent of AMI.<sup>3</sup>

## BENCHMARK INDICATOR

Health People 2020: This measure is being tracked for informational purposes. If warranted, a target benchmark will be established.<sup>4</sup> In 2015, 30 percent of Twin Cities households were cost-burdened.<sup>1</sup>

U.S. Target: No current target.

## DISPARITIES

Low income households, people of color, renters and single-person households are more likely to experience housing cost-burden.<sup>2</sup> In 2015, over 50 percent of African-American households in the Twin Cities were cost-burdened, which is double the rate of white households. Native Americans and Latinos are also more likely than white households to be paying high housing costs. Even when people of color have comparable incomes to white residents they are still more likely to be cost-burdened.<sup>2</sup> Looking at the years 2011-2015 in the metro area, the rate among whites was 26.7 percent, which compares to 31.4 among Asians, 42.5 among those of two or more races, 44.9 among Hispanics, 45.9 among American Indian, 50.4 percent among other races, and 53.3 among African American.<sup>5</sup>

## RISK FACTORS

Renters are more vulnerable to changes in housing market conditions and are more likely to be cost-burdened than homeowners.<sup>2</sup> There is currently a vacancy rate of only 2.5 percent

## Information to note

- Low income households, people of color, renters and single-person households are more likely to experience housing cost-burden.
- The number of households that are housing cost-burdened has increased in the Twin Cities over the past 15 years from one in four families to one in three families.
- Over 50% of African-American households in the Twin Cities were housing cost-burdened in 2015, double the rate of white households.

<sup>1</sup> Cost-burdened Households. MN Compass. Wilder Research. <http://www.mncompass.org/housing/cost-burdened-households#7-6938-g>. Accessed February 2018.

<sup>2</sup> Rybatures, Krysten. MetroStats: Housing Cost Burden in the Twin Cities. Metropolitan Council Regional Policy and Research Team. November 2014. <https://metro council.org/Data-and-Maps/Publications-And-Resources/MetroStats/Housing/Housing-Cost-Burden-in-the-Twin-Cities-Region.aspx> (1). Accessed February 2018.

<sup>3</sup> AMI and Housing Affordability. Metropolitan Council Local Planning Book Web site. <https://metro council.org/Handbook/Files/Resources/Fact-Sheet/HOUSING/Area-Median-Income-and-Housing-Affordability.aspx>. Accessed February 2018.

<sup>4</sup> Healthy People 2020. <https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-of-health/objectives>. Accessed February 2018.

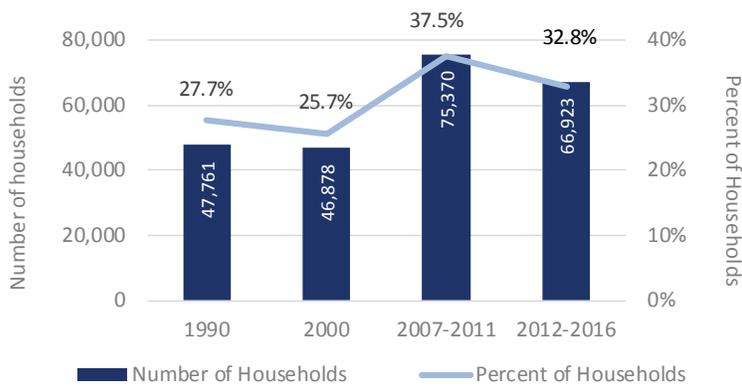
<sup>5</sup> Wilder Research. Cost-burdened Households. MN Compass Website <http://www.mncompass.org/housing/cost-burdened-households#7-6938-g>. Accessed February 2018.

# Housing Cost-Burden and Affordability

across Twin Cities rental properties, creating a tight market with high demand for a limited supply of apartments.<sup>6</sup> Operating within this market, landlords are more likely to raise rents, or implement tenant screening procedures that may lock out applicants with lower credit scores or incomes.

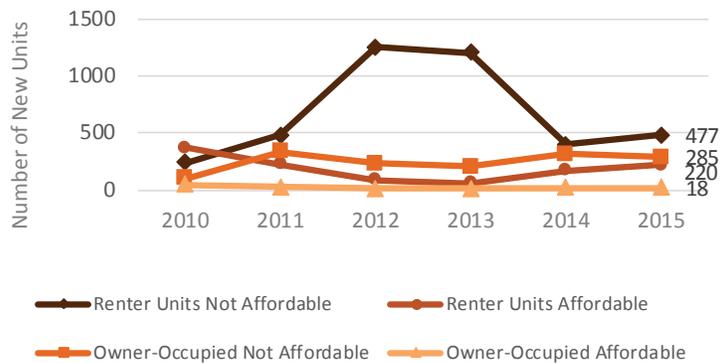
## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

Cost-Burdened Households (Paying More than 30% of Income on Housing), Ramsey County



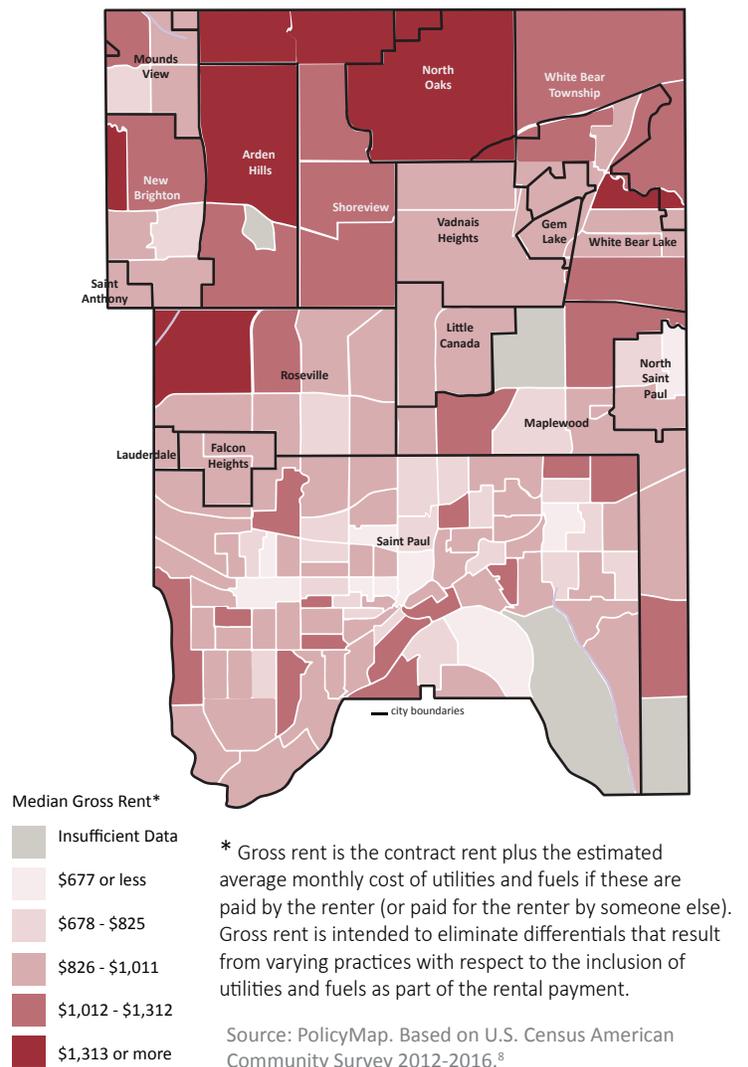
Source: Cost-burdened Households.<sup>7</sup>

New Housing Units by Affordability, Ramsey County



Source: Affordable Housing Production, Twin Cities Metropolitan Area.<sup>9</sup>

Estimated Rent for Rental Units by Census Tract, Ramsey County, 2016



<sup>6</sup> Sold Out. Minnesota Housing Partnership Web site. [http://www.mhponline.org/images/Sold\\_Out\\_final\\_small.pdf](http://www.mhponline.org/images/Sold_Out_final_small.pdf). Accessed February 2018.

<sup>7</sup> Cost-burdened Households. MN Compass Web site. <http://www.mncompass.org/housing/cost-burdened-households#7-6938-g>. Accessed February 2018.

<sup>8</sup> PolicyMap. Based on U.S. Census American Community Survey 2012-2016.

Web Site. <https://www.policymap.com/maps> Accessed February 5, 2018.

<sup>9</sup> Affordable Housing Production, Twin Cities Metropolitan Area. Metropolitan Council Web site. <https://metrocouncil.org/Data-and-Maps/Data/Metadata/Affordable-Housing-Production.aspx>. Accessed February 23, 2018.

## DESCRIPTION

Foreclosure occurs when the sale of a property is forced because the owner is behind on their mortgage payments. In Minnesota, this process can be initiated after the third missed payment to the bank or mortgage company.<sup>1</sup> Foreclosures can be both the cause and the result of health concerns. In 2011, the Robert Wood Johnson Foundation stated, “the nation’s housing crisis, it turns out, is also a major public health crisis.”<sup>2</sup> Economists examined ZIP codes in several states affected by the 2008 housing crisis and found increases in depression, food insecurity and preventable emergency room visits.<sup>3</sup> The opposite can also happen—illness, disability and caregiving can result in decreased household wages, medical bankruptcy and ultimately, foreclosure.<sup>4</sup>

## HOW WE ARE DOING

Minnesota experienced a dramatic rise in foreclosures during the Great Recession going from 6,500 in 2005 to 26,000 in 2008. Foreclosures remained high until 2010 when they slowly began to decline.<sup>5</sup> From 2008 to 2017, Ramsey County foreclosures decreased by 80 percent.<sup>1</sup> Foreclosures decreased across the metro area at similar rates.<sup>6</sup> In 2016, Minnesota had a foreclosure rate of 0.29 percent and Ramsey County had a rate of 0.39 percent.<sup>7</sup>

## DISPARITIES

During the Great Recession, St. Paul’s East Side and North Minneapolis were the hardest hit areas in Minnesota by the foreclosure crisis.<sup>6</sup> It is no coincidence that these are neighborhoods historically home to communities of color. Homeownership among people of color has declined both nationally and locally since the 2008 housing crisis.<sup>7</sup> Discriminatory lending practices, such as a higher likelihood of receiving a subprime loan, made Twin Cities homeowners of color vulnerable to foreclosure.<sup>8</sup> An evaluation of subprime loans in St. Paul between 2004–2006 reveals that people of color were more likely to receive a subprime loan. Subprime loans were also more common for buyers of all races purchasing homes in historically diverse neighborhoods like the Greater Eastside, Payne/Phalen and Thomas-Dale.<sup>9</sup> When several homes on a block slip into foreclosure, the surrounding homes also drop in property value. The domino effect of the 2008 housing crisis resulted in a loss of wealth and assets not merely for individuals but for entire communities of color in the Twin Cities.

## RISK FACTORS

Homeowners who are behind on mortgage payments may be struggling to meet other basic expenses like food security, prescription medication costs and medical copays. If the home moves into foreclosure, the household stands to lose reliable shelter, economic stability and

- Foreclosures can be both the cause and the result of health concerns.
- Ramsey County foreclosures declined 80% between 2008 and 2017.

<sup>1</sup> Ramsey County Assessor’s Office. 2017 Payable 2018 Ramsey County Assessor’s Report and Foreclosure Prevention. <https://www.ramseycounty.us/sites/default/files/Property/Assessor%27s%20Office/2017%20Assessor%20Report%202.pdf>. Accessed July 2018.

<sup>2</sup> Foreclosure Process Takes Toll on Physical, Mental Health. Robert Wood Johnson Foundation. <https://www.rwjf.org/en/library/articles-and-news/2011/10/foreclosure-process-takes-toll-on-physical-mental-health.html>. Published October 21, 2011. Accessed July 2018.

<sup>3</sup> Currie J, Tekin E. Is there a link between foreclosure and health? American Economic Association. 2015;(7) 63-94. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4933518/>. Accessed July 2018.

<sup>4</sup> Pollack CE, Lynch J. Health status of people undergoing foreclosure in the Philadelphia region. American Journal of Public Health. 2009. <http://ajph.aphapublications.org/doi/full/10.2105/AJPH.2009.161380>. Published August 30, 2011. Accessed July 2018.

<sup>5</sup> Minnesota Housing Finance Agency. Residential Foreclosures in Minnesota. 2011. [http://www.mnhousing.gov/idc/groups/secure/documents/admin/mhfa\\_009626.pdf](http://www.mnhousing.gov/idc/groups/secure/documents/admin/mhfa_009626.pdf). Accessed July 2018.

<sup>6</sup> Vang K. 2016 Annual Foreclosure in Minnesota: A report based on County Sheriff’s Sale Data. Minnesota Homeownership Center. 2017. <http://www.hocmn.org/wp-content/uploads/2017/03/2016-Annual-Foreclosure-in-Minnesota.pdf>. Published February 28, 2017. Accessed July 2018.

<sup>7</sup> Homeownership Gap. Minnesota Compass. <http://www.mncompass.org/housing/homeownership-gap#7-5176-g>. Accessed July 2018.

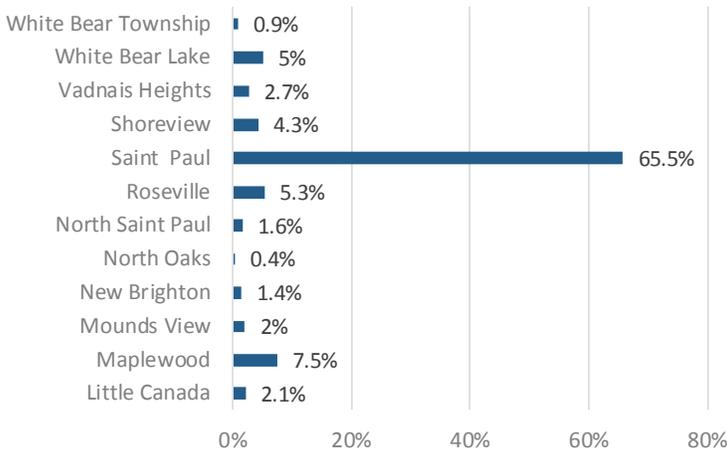
<sup>8</sup> Minnesota Housing Finance Agency. 2016 Disparities Report. <https://www.leg.state.mn.us/docs/2017/mandated/170632.pdf>. Published April 4, 2017. Accessed July 2018.

social connection with neighbors.<sup>9</sup> Currie and Tekin observed that individuals experiencing foreclosure were more likely to be hospitalized for conditions including: heart attack, stroke, respiratory failure, gastrointestinal bleeding and kidney failure.<sup>10</sup> These are conditions that could be managed and prevented in a primary care setting, signifying that changes in health care utilization during financial distress is leading to poorer health.<sup>9</sup>

## WHAT RAMSEY COUNTY IS DOING

text

Share of All Foreclosures by City, 2016



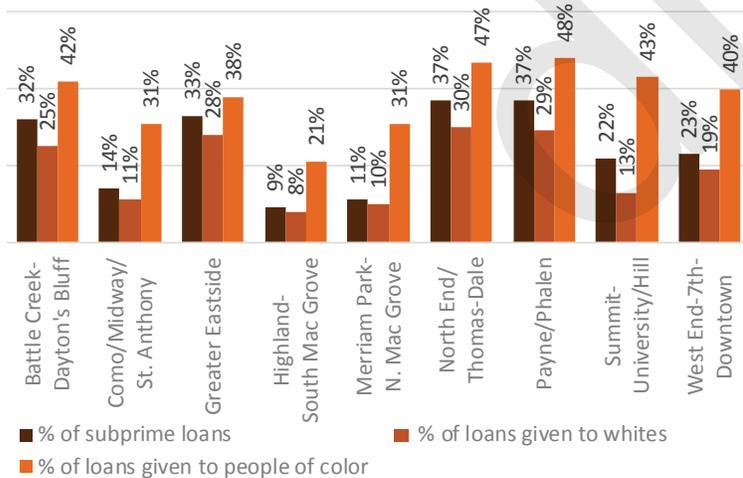
Source: Ramsey County Sheriff's Sales, 2016.

Foreclosures of All Types of Property, Ramsey County



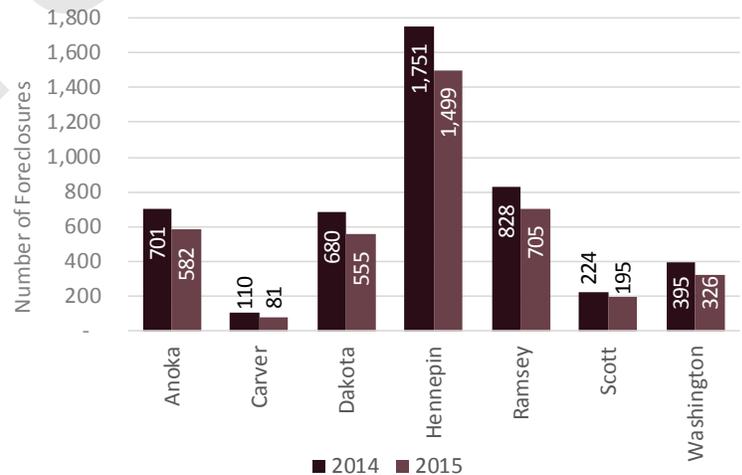
Source: Ramsey County Sheriff's Sales, 2010-2016.

Subprime Lending, Saint Paul, MN, 2004-2006



Source: Institute of Metropolitan Opportunity.<sup>11</sup>

Number of Foreclosures, Metro Counties



Source: Minnesota Homeownership Center.<sup>12</sup>

<sup>9</sup> Foreclosure Process Takes Toll on Physical, Mental Health. Robert Wood Johnson Foundation. <https://www.rwjf.org/en/library/articles-and-news/2011/10/foreclosure-process-takes-toll-on-physical-mental-health.html>. Published October 21, 2011. Accessed July 2018.

<sup>10</sup> Currie J, Tekin E. Is there a link between foreclosure and health? American Economic Association. 2015;(7) 63-94. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4933518/>. Accessed July 2018.

<sup>11</sup> Institute of Metropolitan Opportunity. Twin Cities in Crisis: Unequal Treatment of Communities of Color in Mortgage Lending. (2014). <http://www.law.umn.edu/sites/law.umn.edu/files/newsfiles/00d560a3/IMO-Twin-Cities-Lending-Report-2014-Final.pdf>. Accessed October 26, 2017.

<sup>12</sup> Minnesota Homeownership Center. 2016 Annual Foreclosure in Minnesota: A report based on County Sheriff's Sale Data (2017). <http://www.hocmn.org/wp-content/uploads/2017/03/2016-Annual-Foreclosure-in-Minnesota.pdf>. Accessed October 26, 2017.

## DESCRIPTION

Homelessness exists when people lack safe, stable and appropriate places to live. Individuals experiencing homelessness often lack access to appropriate health care and experience higher rates of physical and mental illness and behavioral health issues compared to other populations.<sup>1</sup> Recent research finds homeless people are three to four times more likely to die prematurely than their housed counterparts, and experience an average life expectancy as low as 41 years.<sup>2</sup> A recent survey of homeless individuals in and around downtown Saint Paul revealed that most people reported mental or chemical health issues or physical injuries; half had been homeless for less than two years; about one in five had been restricted from shelter facilities, and nearly half receive some type of assistance from Ramsey County.<sup>3</sup>

## HOW WE ARE DOING

According to the most current Minnesota Homeless Study conducted by Wilder Research, the overall rate of homelessness among all age groups in Ramsey County increased during 2012-2015.<sup>4</sup> In 2015, 1,787 people experienced homelessness in Ramsey County. Children (17 and under) and their parents represented 30 percent of the homeless population in the county, an increase of 15 percent since 2012.<sup>4</sup> Ramsey County's homeless individuals account for nearly 19 percent of the total count for the state (9,312).<sup>4</sup> There has also been a steady increase in the number of older adults experiencing homelessness (up 14 percent since 2012).<sup>4</sup> Metro Transit reports that about 150 people are sleeping in transit vehicles on an average night.<sup>3</sup>

## BENCHMARK INDICATOR

U.S. Department of Housing and Urban Development (HUD) metrics:<sup>5</sup>

- 1) Decrease the number of persons experiencing homelessness.
- 2) Decrease the average and median days a person is homeless.

## DISPARITIES

Children and older adults are currently vulnerable populations for homelessness. People of color in Minnesota disproportionately experience homelessness compared to their white counterparts.<sup>4</sup>

## RISK FACTORS

Homelessness is consistently linked with lack of adequate employment, having chronic health conditions, and having a history of violence or abuse.<sup>6</sup> In addition to these risk factors, Minnesotans also are more likely to experience homelessness when there are stagnant wages, rising rents, low vacancy rates and a lack of affordable housing.<sup>6</sup> (continued on back)

## Information to note

- Homelessness in Ramsey County has increased since 2009. The county now has the highest rate in the 7-county metro area.
- Children and their parents represent 30% of the homeless population in the county, an increase of 15% since 2012.
- Since 2009, the number of homeless adults age 55+ living in shelters has doubled.

## Community voice

*"unstable housing [stress from that]."*

- Black, age 35-44

Respondents expressed the stress from lack of housing. About 50% (98) of the housing mentions stated homelessness and instability.

<sup>1</sup> American Psychological Association. Health and Homelessness. <http://www.apa.org/pi/ses/resources/publications/homelessness-health.pdf>. Accessed March 5, 2018.

<sup>2</sup> National Healthcare for the Homeless Council. (2010). Homelessness and Health: What's the Connection. from [https://www.nhchc.org/wp-content/uploads/2011/09/HIn\\_health\\_factsheet\\_Jan10.pdf](https://www.nhchc.org/wp-content/uploads/2011/09/HIn_health_factsheet_Jan10.pdf). Accessed September 1, 2017.

<sup>3</sup> Ramsey County Managers Office All Staff Communication. A collaborative effort to tackle homelessness. February, 2018.

<sup>4</sup> Wilder Research. Ramsey County: Characteristics and Trends of those Experiencing Homelessness in Minnesota. <http://mnhomeless.org/minnesota-homeless-study/reports-and-fact-sheets/2015/2015-homeless-ramsey-county-fact-sheet-2-17.pdf>. Accessed March 5, 2018.

<sup>5</sup> U.S. Department of Housing and Urban Development. May 2015. System Performance Measures: An introductory guide to understanding system-level performance measurement. <https://www.hudexchange.info/resources/documents/System-Performance-Measures-Introductory-Guide.pdf>. Accessed December 1, 2017.

<sup>6</sup> Amherst Wilder Foundation. Start by Knowing Why: 5 Reasons People in Minnesota are Homeless, December, 2017. <http://www.wilder.org/Blog/Lists/Posts/Post.aspx?ID=198#Wp8BlujwblU>. Accessed March 6, 2018.

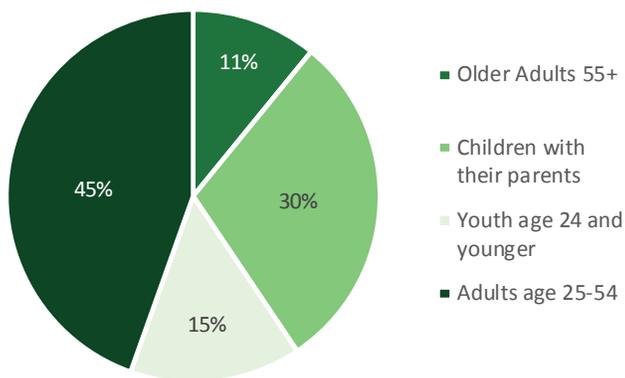
## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

Ramsey County’s contributions to end homelessness include involvement in the opening of Catholic Charities’ Higher Ground Saint Paul at Dorothy Day Place in 2017. Phase II of the project is under construction which will add more beds and provide on-site services through an Opportunity Center. Ramsey County was the first public sector partner to contribute financially to the Opportunity Center, agreeing to both a capital investment in the building and a long-term service delivery lease that will ensure that county staff are able to effectively deliver a variety of services as close as possible to the people who need them. Also in 2017, the county launched the *RUSH* initiative (Re-directing Users of Shelter to Housing) which works with the most frequent users of Higher Ground and the Union Gospel Mission to move them into permanent housing. The county along with community partners recently converted the former detox space in Government Center East to an emergency overnight shelter- *Winter Safe Space*. Additionally, an outreach team called “Outside In” is working to create a registry of all unsheltered individuals and connect them to services. Ramsey County directly funds family emergency shelters as well as the *Coordinated Entry System* which offers access to supportive housing for youth and single adults. Through local and national funding opportunities, the county continues to secure over \$8.5 million annually to fund housing projects.

Ramsey County Homelessness Numbers by Study Year, Age Group, and Percent Change Between 2012 - 2015				
	2009 Study	2012 Study	2015 Study	% Change (2012-2015)
Children (17 and under) with parents	490	469	541	+15%
Unaccompanied minors (under 17 and under)	43	35	52	+49%
Young adults (18-21)	199	172	208	+21%
Adults (22-54)	848	724	796	+10%
Older Adults (55 and over)	105	167	190	+14%
Total	1,685	1,567	1,787	+14%

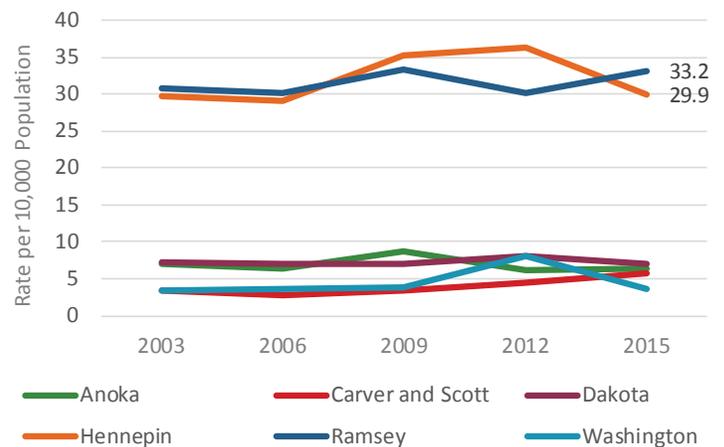
Source: Wilder Research.<sup>7</sup>

Homelessness by Age Group, Ramsey County 2015



Source: Wilder Research.<sup>7</sup>

Rate of Homelessness Over Time by Metro County



Source: Wilder Research and Minnesota Compass.<sup>8</sup>

<sup>7</sup> Wilder Research. Ramsey County: Characteristics and Trends of those Experiencing Homelessness in Minnesota. <http://mnhomeless.org/minnesota-homeless-study/reports-and-fact-sheets/2015/2015-homeless-ramsey-county-fact-sheet-2-17.pdf>. Accessed March 5, 2018.

<sup>8</sup> Wilder Research and Minnesota Compass. <http://www.mncompass.org/housing/homeless-persons#7-190-g>. Accessed February 23, 2018.

# Child Care Costs

## DESCRIPTION

Children require child care for many reasons, but care is crucial when all available parents or guardians are in the workforce. The cost of care for infants and school aged children can be one of the most significant expenses in a family's budget. Child care is provided in licensed family-based locations, in a child's home, or in center-based programs.<sup>1</sup> Regardless of place of care, affordable, quality care is important to a child's development as well as a family's overall health and wellness.<sup>2</sup>

## HOW WE ARE DOING

The weekly cost of licensed family-based child care in Ramsey County ranges from \$145 to \$177 per child, depending on the age of the child, whereas licensed center-based care is more expensive-\$199 to \$331 per child per week.<sup>3</sup> There is currently more licensed family-based care (512) than licensed center-based programs (207) in Ramsey County. The number of affordable licensed family-based child care has been declining in Minnesota since 2005.<sup>1,3</sup> Overall, the cost of child care in Ramsey County lies in the median range among other metro counties.<sup>1</sup>

## DISPARITIES

Families most likely to be impacted by the cost of child care include families with an African-American or Hispanic head of household, families who have two or more children, families headed by someone with less than a high school degree, part-time workers and single parents.<sup>2</sup>

## RISK FACTORS

Due to affordability, lower-income families have fewer child care options and are at higher risk of being driven into poverty due to child care costs.<sup>2</sup>

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

The Child Care Assistance Program provides financial assistance to help families with low incomes pay for child care so that parents may pursue employment or education leading to employment, and that children are well cared for and prepared to enter school ready to learn. The Minnesota Family Investment Program (MFIP) and the Diversionary Work Program help families work toward economic stability. Minnesota fully funds child care assistance for families who participate in either program, or who have moved off the programs in the last year. In addition, the Basic Sliding Fee program, a capped allocation, assists low-income families, who are not participating in either program, with child care costs. As of October 2017, 2,370 families were on the waiting list for Basic Sliding Fee child care in Minnesota.

## Information to note

- The Twin Cities Metro has seen a 2% increase in child care capacity since 2005 but Minnesota overall has seen a 29% decrease in licensed family-based child care programs.<sup>1</sup>
- Licensed center-based child care in Ramsey County is 50% more costly than licensed family-based care.<sup>1</sup>

<sup>1</sup> Licensed Child Care Trends in Minnesota Fact Sheet: Years 2005- 2015. Minnesota Department of Human Services. <http://www.dhs.state.mn.us/main/groups/licensing/documents/defaultcolumns/dhs-292314.pdf>. Published November 2016. Updated March 2017. Accessed March 2018.

<sup>2</sup> What is the Cost of Child Care in Your State? Child Care Aware of America. <http://usa.childcareaware.org/advocacy-public-policy/resources/research/costofcare/>. Accessed January 2018.

<sup>3</sup> Rates and Marketing. Thinksmall.org. [http://www.thinksmall.org/for\\_early\\_childhood\\_professionals/build\\_a\\_better\\_business/rates\\_and\\_marketing/](http://www.thinksmall.org/for_early_childhood_professionals/build_a_better_business/rates_and_marketing/). Accessed March 2018.



## DESCRIPTION

In Ramsey County, the County Attorney's Office is responsible for child support collection and services. The goal of the Ramsey County Attorney's Office of Child Support Services Division is to create safe communities where children can live with dignity and respect.<sup>1</sup> As a criminal justice agency, the Ramsey County Attorney's Office regards child support enforcement as a premier crime prevention program. Dedication to the fair collection of child support contributes to child well-being by contributing support for basic needs-food, clothing, health, education and shelter. This in turn can help ensure that Ramsey County's children will become productive, law abiding adults in our community.

The Ramsey County Attorney's Office Child Support Services Division offers four primary services:

- 1) Establishing paternity, including genetic testing
- 2) Establishing court orders
- 3) Enforcing and collecting child support (usually until the child is age 18 or graduates from high school)
- 4) Modifying child support if circumstances change

In 2016, the Ramsey County Child Support Services Division provided services to 26,719 families: 4,264 families receiving public assistance; 14,990 families that previously received public assistance; and 7,465 additional families.

## HOW WE ARE DOING

Each year, state child support programs report on several performance measures to the federal Office of Child Support Enforcement.<sup>2</sup> Minnesota and Ramsey County continue striving to be among the top performing states/counties on the five federal performance measures, and in other key program areas.<sup>3</sup> One performance measure, the "current collections ratio" is the percentage of child support collected compared to the amount of child support ordered. In Ramsey County, the current collections ratio increased from 64 percent to over 67 percent in the past two years. This increase is due in part to efforts to obtain realistic orders for families and to use early intervention and effective enforcement remedies for collection. Child support performance is also measured by the "establishment rate," which is the number of cases where paternity is established there is a court order for child support. Sometimes these orders are in place because of a divorce or custody order, but a large majority of child support orders are obtained for Ramsey County parents through the efforts of the Child Support Services Division.

## BENCHMARK INDICATOR

The federal Office for Child Support Enforcement:

- 1) Improvement in the current collections ratio
- 2) Improvement in the number of cases with a child support court order

## DISPARITIES

Nationwide, 25 percent of all children and 50 percent of poor children receive child support services. Child support makes up approximately 40 percent of a poor family's income.<sup>4</sup> Over 71 percent of Ramsey County's caseload includes current or former public assistance recipients.

## Information to note

- Ramsey County's child support collections ratio increased from 64% to over 67% in the past two years.
- Due to efforts of the Office of Child Support Services staff, close to 100% of paternities are established in child support cases.

<sup>1</sup> Ramsey County Attorney's Office Child Support Services Division. <https://www.ramseycounty.us/your-government/leadership/county-attorneys-office/divisions-units/human-services-division/child-support-section>. Accessed August 2018.

<sup>2</sup> U.S. Department of Health and Human Services, Administration for Children & Families. Office of Child Support Enforcement 2016 Preliminary Report. <https://www.acf.hhs.gov/css/resource/2016-preliminary-report>. Accessed December 07, 2017.

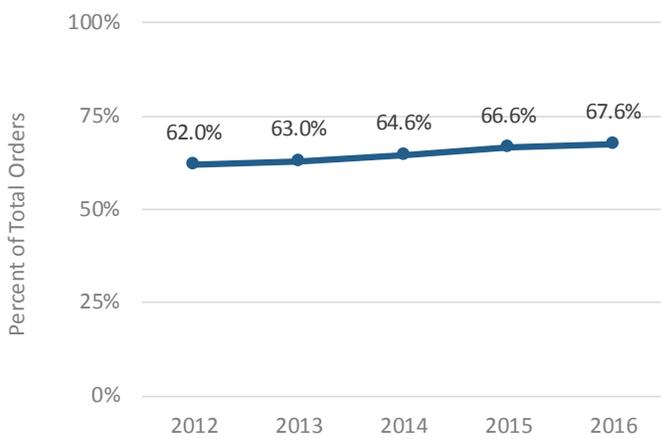
<sup>3</sup> 2016 Minnesota Child Support Performance Report. Minnesota Department of Human Services. <https://www.leg.state.mn.us/docs/2017/other/170238.pdf>. Accessed August 2018.

<sup>4</sup> The Child Support Program is a Good Investment: Story Behind the Numbers. Office of Child Support Enforcement. <https://www.acf.hhs.gov/css/resource/sbntn-child-support-program-is-a-good-investment>. Published December 30, 2016. Accessed December 07, 2017.

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

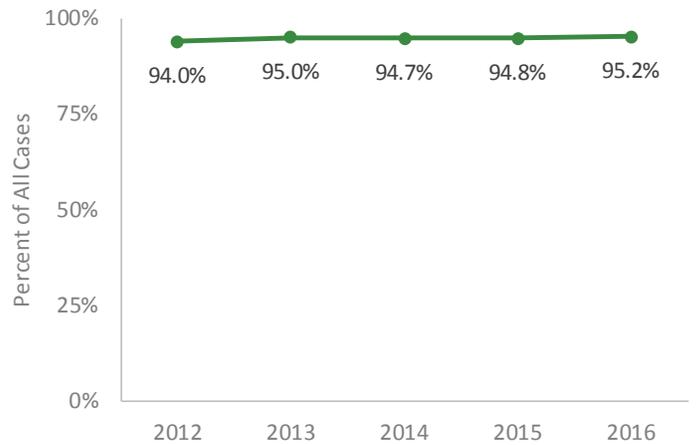
In August 2016, Ramsey County Child Support Services initiated a project as a part of Child Support Awareness month. County staff contacted more than 1,600 noncustodial parents inviting them to connect with the child support office and take the necessary steps to reinstate driver's licenses that had been suspended for nonpayment of child support. Through this effort, over \$61,000 was collected and 112 noncustodial parents established payment agreements who were able to have their driver's licenses reinstated. This small effort made a big difference and helped Ramsey County achieve its highest-ever collection rate in 2016.

### Child Support Collections, Ramsey County



Source: Ramsey County Attorney's Office Child Support Services Division.

### Child Support Paternities Established, Ramsey County



Source: Ramsey County Attorney's Office Child Support Services Division.

# Minnesota Family Investment Program (MFIP)

## DESCRIPTION

The Minnesota Family Investment Program (MFIP) provides cash, food and employment services for low-income Minnesota families who meet eligibility criteria. Families can also qualify for child care assistance and a small, monthly housing grant. The Family Stabilization Services track of MFIP was created during the 2007 legislative session to provide families with a more flexible set of services so that they could get and keep employment, improve family stability, increase economic stability and remove barriers. Minnesota uses an Employability Measure Assessment, an instrument developed to gauge status and progress in 11 key areas of life functioning that have been shown to be important in getting and keeping a job: child behavior, dependent care, education, financial, health, housing, legal, personal skills, safe living environment, social support and transportation.

## HOW WE ARE DOING

With a program budget of \$13,830,405, there were 8,457 Ramsey County families enrolled in MFIP (for at least one month) in 2017. Of these, 3,651 (43 percent) were placed into employment with an average hourly wage of \$12.10.<sup>1</sup> Participants in the Families Achieving Success Today II (FAST2) program, a MFIP initiative targeting exclusively African American and American Indian participants, were more likely than control group members to be enrolled in employment service activities (such as job seeking, education or training, and social services). FAST2 enrollees were also more likely to gain employment.

## BENCHMARK INDICATOR

Minnesota Department of Human Services (DHS) Self-Support Index:

The percentage of individuals who are either working in paid employment at least 30 hours per week or are off the cash portion of MFIP and DWP (Diversionary Work Program) three years later. DHS calculates a target individually for each county or tribe to measure success.

## DISPARITIES

While almost 70 percent of all Minnesota MFIP participants have been successful as defined by the Self-Support Index, significantly lower values have been reported for African American and American Indian participants. These disparities have continued to be large over time.<sup>2</sup> In 2014, Ramsey County achieved a Self-Support Index for white MFIP participants of 53.8 percent, 11.5 percentage points higher than that for African American participants (42.3 percent) and 15 percentage points higher than that for American Indian participants (38.8 percent).<sup>3</sup>

## RISK FACTORS

Recent studies have provided empirical support for the concept of historical trauma, the idea that significant past trauma experienced by a group of people may accumulate over generations and interact with everyday stressors to reduce overall health and well-being. Intergenerational poverty can also be a risk factor for long-term MFIP enrollment.

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

Ramsey County was a selected site for the MFIP Equity Project (funded by the Minnesota (continued on next page)

## Information to note

- More than 26,000 Ramsey County residents participated in MFIP in 2017.
- Intergenerational poverty can be a risk factor for long-term MFIP enrollment.
- The graduation rate for teen parents enrolled in the MFIP Teen Parent Program has increased from 33% in 2003 to 77% in 2017.

<sup>1</sup> Workforce Solutions: 2017 Annual Business Report. Ramsey County. <https://www.ramseycounty.us/businesses/workforce-business-development/workforce-development/2017-annual-business-report/program-report-cash-assistance/2017-minnesota-family-investment-program-mfip>. Accessed October 2018.

<sup>2</sup> Minnesota Family Investment Program: Racial Equity Project. Preliminary findings for a 2014-2016 MFIP Innovation Project. Minnesota Department of Human Services. <https://edocs.dhs.state.mn.us/lfsrserver/Public/DHS-7629-ENG>. Published September 2017. Accessed October 2018.

<sup>3</sup> Personal communication. Ramsey County Human Services. Citing the draft "MFIP Evaluation Brief, 2-14-2018, FAST2 Racial Equity Grant." Accessed October 2018.

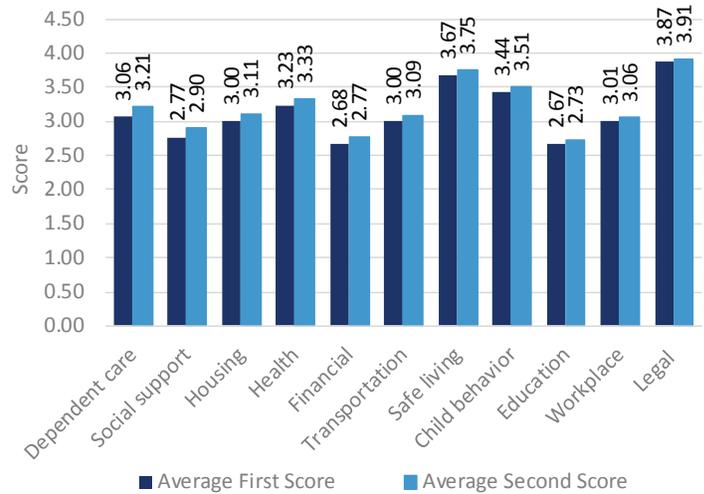
# Minnesota Family Investment Program (MFIP)

Department of Human Services from 2014 through 2016) to provide culturally specific employment services and bolster employment outcomes for African-American and American Indian MFIP participants. As a result, customized employment plans, intensive case management, the state's employability measure, and required data collection were included in implementation of the county's Families Achieving Success Today (FAST) model.

Ramsey County Workforce Solution's Extension Services, in partnership with a range of community organizations, expanded on its FAST2 model to assist randomly assigned African American and American Indian participants who have used more than 60 months of MFIP and received an extension to the MFIP federal time limit. The co-location of staff from employment, children's mental health, and adult physical and mental health services allowed staff to work with families to improve continuity of care, and to have needs addressed in a single stop.

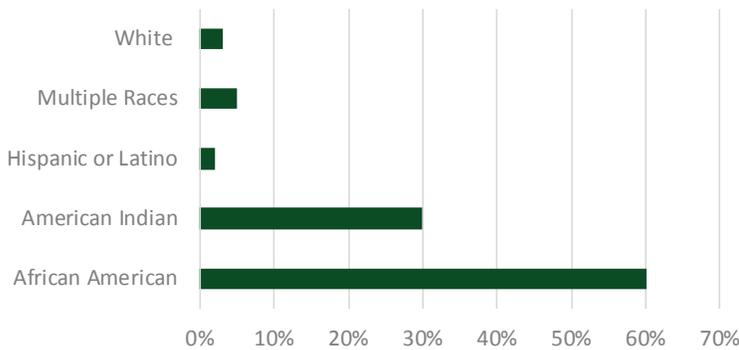
In addition, Workforce Solutions, Ramsey County Financial Services, and Saint Paul-Ramsey County Public Health have partnered since 2013 to develop and maintain streamlined MFIP application, financial assistance, child care approval, and living arrangement processes to reduce barriers to high school graduation, enhance birth outcomes, and promote positive parent-child interaction and infant/toddler development for teen parents and their children. Since its inception, the graduation rate for teen parents enrolled in the MFIP Teen Parent Program has continued to increase, from 33 percent in 2013 to 77 percent in 2017.

Employability Measure Assessment Among MFIP Equity Participants\* 2014-2016



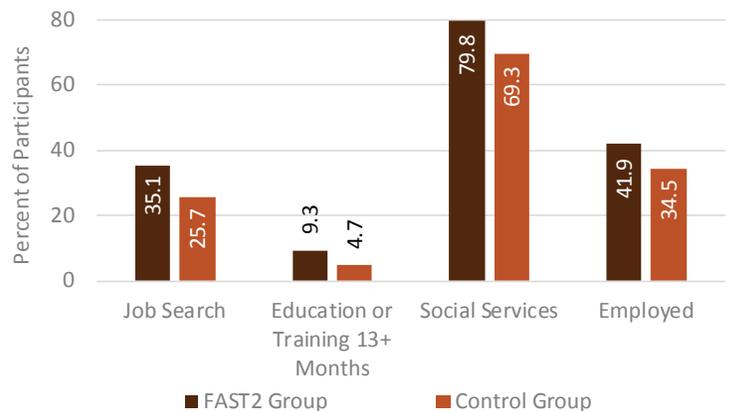
\*The Minnesota Family Investment Program (MFIP) Equity Project included projects carried out by six grantees: Anoka County, Hennepin County, Minnesota Chippewa Tribe, Ramsey County, St. Louis County, and Red Lake Nation. Source: Minnesota Department of Human Services.<sup>4</sup>

MFIP Equity Project Participants\* by Race/Ethnicity, 2014-2016



\*The Minnesota Family Investment Program (MFIP) Equity Project included projects carried out by six grantees: Anoka County, Hennepin County, Minnesota Chippewa Tribe, Ramsey County, St. Louis County, and Red Lake Nation. Source: Minnesota Department of Human Services.<sup>4</sup>

FAST2 Program Outcomes, Ramsey County, 2015



Source: WorkforceOne (WFI) Personal communication with Ramsey County Human Services.

<sup>4</sup> Minnesota Family Investment Program: Racial Equity Project, Preliminary findings for a 2014-2016 MFIP Innovation Project, September 2017. <https://edocs.dhs.state.mn.us/lfsrserver/Public/DHS-7629-ENG>

## DESCRIPTION

Cost is one of many barriers that individuals face when accessing health care. A Gallup poll conducted in March 2018 found that 55 percent of Americans worry “a great deal” about the availability and affordability of health care, topping concerns about other issues Gallup tested.<sup>1</sup> Most Americans have worried a great deal about health care each time Gallup has asked about it since 2001. It is the only issue Gallup has measured consistently to maintain this level of worry.<sup>1</sup> Challenges affording care also result in some Americans saying they have delayed or skipped care due to costs in the past year. Large shares of the public say that lowering people’s health care and prescription drug costs should be a top priority for lawmakers. Sizable shares of those with health insurance say that affording their premiums, deductibles, and other cost sharing expenses (copays for doctor visits and prescription drugs) is difficult for them.<sup>2</sup> In the U.S., the experience of health care has not been equal for everyone. Some people have gotten worse quality health care, have had a harder time getting health care, or have had more health issues because of their disability, race, ethnicity, sexual orientation or income.<sup>3</sup>

## HOW WE ARE DOING

In 2016, in the Twin Cities Metro Area, 9.6 percent of adults reported not seeing a doctor in the past 12 months because of cost, the highest percentage in the past 3 years.<sup>4</sup> Adults responding to the 2014 SHAPE survey, when asked “During the past 12 months how difficult has it been for you and your family to pay for health insurance premiums, co-pays and deductibles?”, 22.1 percent of Ramsey County adults reported “very difficult” or “somewhat difficult.” Adults aged 35-44 were most likely to report paying as being “very difficult.”<sup>5</sup>

## BENCHMARK INDICATOR

Healthy People 2020<sup>6</sup>: Reduce the proportion of persons who are unable to obtain or delay in obtaining necessary medical care, dental care, or prescription medicines.

U.S. Target: 9 percent

## DISPARITIES

Within Ramsey County, more St. Paul adults reported struggling to afford health care costs (24.1 percent) than adults in suburban Ramsey County (20.1 percent). Disparities are also present by age and income. Ramsey County adults 65 and older responded it was not too difficult or not at all difficult to pay for health insurance costs, likely because adults 65 and older are eligible for Medicare coverage. It is not surprising that individuals with more education or higher household income reported less difficulty paying for health insurance premiums, co-pays and deductibles than adults with less education or lower income.<sup>5</sup>

## RISK FACTORS

Health care-related worries and problems paying for care are particularly prevalent among the uninsured, individuals with lower incomes, and those in poorer health; but women and members of racial minority groups are also more likely than their peers to report these issues.<sup>2</sup>

## Information to note

- Among Ramsey County adults, 22.1% reported it has been very difficult or somewhat difficult to pay for health care expenses.
- Metro adults with less education or lower income report more difficulty affording health insurance costs.

<sup>1</sup>Jones J. U.S. concerns about healthcare high; energy, unemployment low. Gallup. 2018. [https://news.gallup.com/poll/231533/concerns-healthcare-high-energy-unemployment-low.aspx?utm\\_source=alert&utm\\_medium=email&utm\\_content=morelink&utm\\_campaign=syndication](https://news.gallup.com/poll/231533/concerns-healthcare-high-energy-unemployment-low.aspx?utm_source=alert&utm_medium=email&utm_content=morelink&utm_campaign=syndication). Published March 26, 2018. Accessed July 2018.

<sup>2</sup>Dijulio B, Kirzinger A, Wu B, Brodie M. Data note: Americans’ challenges with health care costs. Kaiser Family Foundation. 2017. <https://www.kff.org/health-costs/poll-finding/data-note-americans-challenges-with-health-care-costs/>. Published March 2, 2017. Accessed July 2018.

<sup>3</sup>Health Care in Minnesota: Overview – The Details. Disability Benefits 101. [https://mn.db101.org/mn/programs/health\\_coverage/aca/program2.htm](https://mn.db101.org/mn/programs/health_coverage/aca/program2.htm). Updated June 28, 2016. Accessed July, 2018.

<sup>4</sup>BRFSS Prevalence & Trends Data. Centers for Disease Control and Prevention. <https://www.cdc.gov/brfss/brfssprevalence/>. Accessed July 2018.

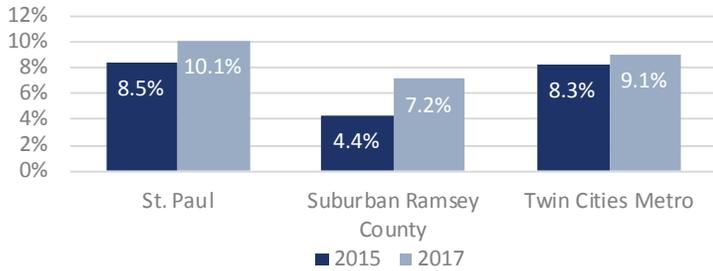
<sup>5</sup>Saint Paul – Ramsey County Public Health. Metro SHAPE Ramsey County Data Book 2014. <https://www.ramseycounty.us/your-government/open-government/research-data/public-health-data>. Accessed July 2018.

<sup>6</sup>Access to Health Services. Healthy People 2020. <https://www.healthypeople.gov/2020/topics-objectives/topic/Access-to-Health-Services/objectives>. Accessed July 2018.

## WHAT RAMSEY COUNTY IS DOING

Ramsey County provides funding to five Ramsey County community clinics to help off-set the cost of medical and dental services provided to uninsured and underinsured clients. Saint Paul – Ramsey County Public Health maintains a surveillance role, monitoring the level of insured/uninsured status in Ramsey County.

**Health Care Costs: Financial Burden\* and Foregone Care\*\* Among Adults**

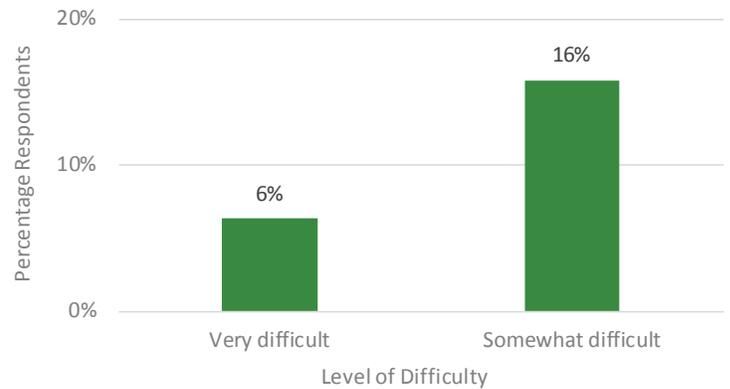


\* Financial burden includes having to set up a payment plan with a hospital or doctor's office or problems paying medical bills or other basic bills due to medical bills in the past 12 months.

\*\* Foregone care includes forgone prescriptions, dental care, routine medical care, mental/behavioral health care or specialist care due to cost in the last 12 months.

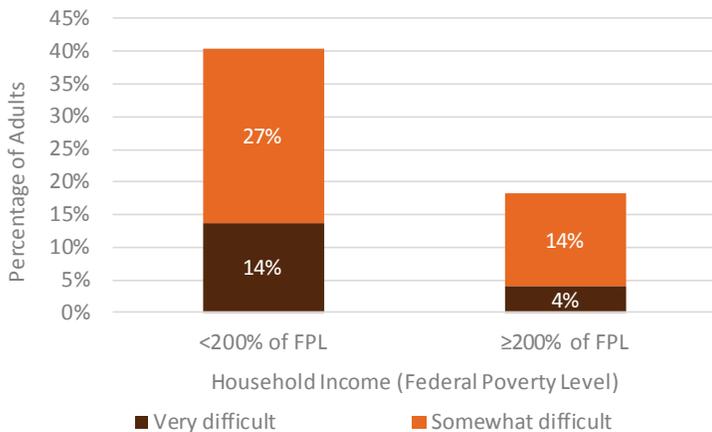
Source: Minnesota Health Access Survey.<sup>7</sup>

**Difficulty Paying for Health Insurance, Ramsey County, 2014**



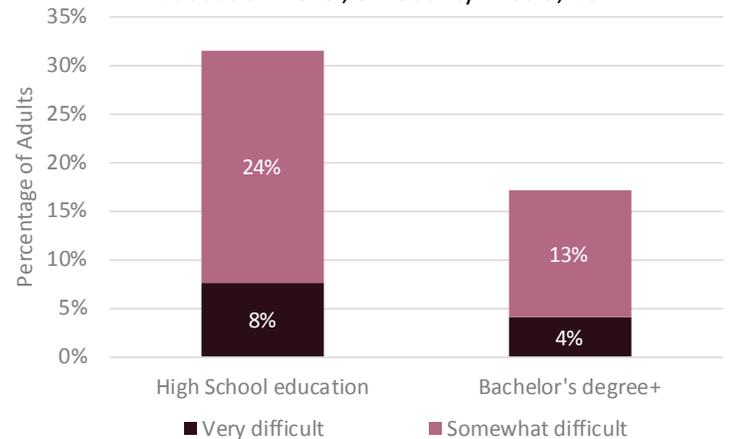
Source: Metro SHAPE Ramsey County Data Book.<sup>8</sup>

**Difficulty Paying for Health Insurance Costs, Six County Metro, 2014**



Source: Metro SHAPE Six County Data Book.<sup>9</sup>

**Difficulty Paying for Health Insurance Costs by Education Level, Six County Metro, 2014**



Source: Metro SHAPE Six County Data Book.<sup>9</sup>

<sup>7</sup> Minnesota Department of Health. Minnesota Health Access Survey. Personal communication from MDH Health Economics Division. July 2018.

<sup>8</sup> 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 July 2018.

<sup>9</sup> Metro Public Health Analyst Network. Metro SHAPE Six County Data Book. 2014.

## DESCRIPTION

Health insurance is one of the best known and most common means used to obtain access to health care. Increasingly, the evidence points to harmful health and economic consequences related to being uninsured. These consequences may extend beyond the uninsured individual to the family and community, the health care system and society as a whole.<sup>1</sup> Uninsured people receive less medical care and less timely care, they have worse health outcomes, and lack of insurance is a fiscal burden for them and their families.<sup>2</sup> Low levels of insurance in an area can also burden medical providers because of higher demand for free or reduced-cost care. Safety-net care from hospitals and clinics improves access to care but does not fully substitute for health insurance.<sup>2</sup> Some may believe that people always have access to medical care because they can simply go to an emergency room. But even areas with well supported safety net care do not remove barriers to access to the same extent as having health insurance.<sup>1</sup> The Institute of Medicine estimated that lack of coverage was associated with about 18,000 extra deaths per year among uninsured adults.<sup>3</sup>

## HOW WE ARE DOING

During 2013 to 2015, Ramsey County's uninsurance rate decreased from 10.6 percent in 2013 to 4.7 percent due to the implementation of the federal health reform legislation under the Patient Protection and Affordable Care Act (ACA). But according to the 2017 Minnesota Health Access Survey, uninsurance rates in Ramsey County increased from 4.8 percent in 2015 to 6.2 percent in 2017.<sup>4</sup>

Health insurance coverage can come from various sources including public coverage, group coverage and individual coverage. In Ramsey County, the greatest source of insurance in 2017 came from group coverage.<sup>4</sup> Group coverage is provided by employers to employees and their spouses and dependents. The second greatest source of coverage in Ramsey County is public insurance.<sup>4</sup> The percentage of individuals who are covered through a Minnesota public insurance program increased from 29 percent in 2013 to 40.1 percent in 2017.<sup>4</sup>

## BENCHMARK INDICATOR

Healthy People 2020<sup>5</sup>: Increase the proportion of persons with medical insurance.  
U.S. Target: 100 percent

## DISPARITIES

Significant disparities in health insurance coverage continue in Ramsey County, especially by race, ethnicity, education, income and geography. According to the Minnesota Health Access Survey, Hispanic residents continue to have highest uninsurance rate in Ramsey County, with 17.1 percent uninsured in 2017.<sup>4</sup> Health insurance coverage also varies by educational attainment. Individuals with a high school degree or less reported a 12 percent uninsurance rate in Ramsey County in 2017.<sup>4</sup> In comparison, only 2.6 percent of individuals with college or postgraduate degrees were without insurance in 2017.<sup>4</sup> In suburban Ramsey County, the uninsured rate decreased between 2015 and 2017 (3.7 percent to 2.9 percent) yet increased for City of St. Paul residents (5.6 percent to 8.5 percent).<sup>4</sup>

## Information to note

- In Ramsey County, the uninsurance rate increased from 4.8% in 2015 to 6.2% in 2017.
- Hispanic residents continue to have the highest uninsurance rates in Ramsey County.
- Ramsey County residents living below 100% of the Federal Poverty Level are more likely to be uninsured than higher income residents.

<sup>1</sup> Institute of Medicine. Coverage Matters: Insurance and Health Care. The National Academies of Sciences, Engineering, and Medicine. 2001. <http://www.nationalacademies.org/hmd/~/media/Files/Report%20Files/2003/Coverage-Matters-Insurance-and-Health-Care/Uninsurance8pagerFinal.pdf>. Published September 2001. Accessed July 2018.

<sup>2</sup> Bovbjerg T, Hadley J. Why is health insurance important? The Urban Institute. 2007. DC-SPC no. 1. <https://www.urban.org/sites/default/files/publication/46826/411569-Why-Health-Insurance-is-Important.PDF>. Published November 2007. Accessed July 2018.

<sup>3</sup> Institute of Medicine. Care without Coverage: Too Little, Too Late. The National Academies of Sciences, Engineering, and Medicine. 2002. <http://www.nationalacademies.org/hmd/~/media/Files/Report%20Files/2003/Care-Without-Coverage-Too-Little-Too-Late/Uninsured2FINAL.pdf>. Published May 2002. Accessed July 2018.

<sup>4</sup> Minnesota Department of Health. Minnesota Health Access Survey. Personal communication from MDH Health Economics Division. July 2018.

<sup>5</sup> Access to Health Services. Healthy People 2020. <https://www.healthypeople.gov/2020/topics-objectives/topic/Access-to-Health-Services>. Accessed July 2018.

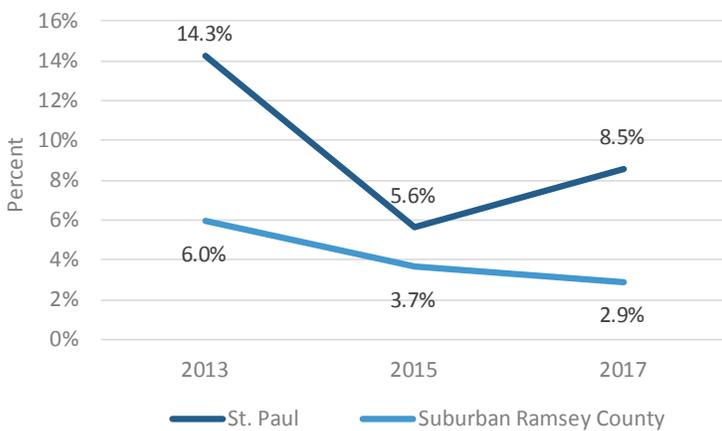
## RISK FACTORS

There is an association between poverty and lack of health insurance. Individuals in Ramsey County with incomes below 100 percent of the federal poverty level have the highest rates of uninsurance.<sup>6</sup>

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

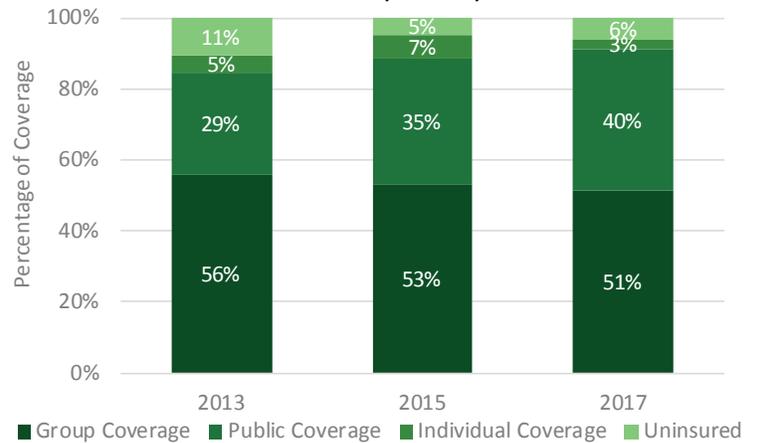
Saint Paul – Ramsey County Public Health and Ramsey County Financial Services provide referrals and/or assistance to uninsured clients to help them obtain health care coverage through Medical Assistance, MinnesotaCare, and specialty programs such as the Minnesota Family Planning Program or SAGE program for cancer screening for women. Ramsey County provides funding to five Ramsey County community clinics to help off-set the cost of medical and dental services provided to uninsured and underinsured clients. Saint Paul – Ramsey County Public Health maintains a disease surveillance role, monitoring the level of insured/uninsured status among Ramsey County residents.

Uninsured Rate, St. Paul vs. Suburbs, Ramsey County



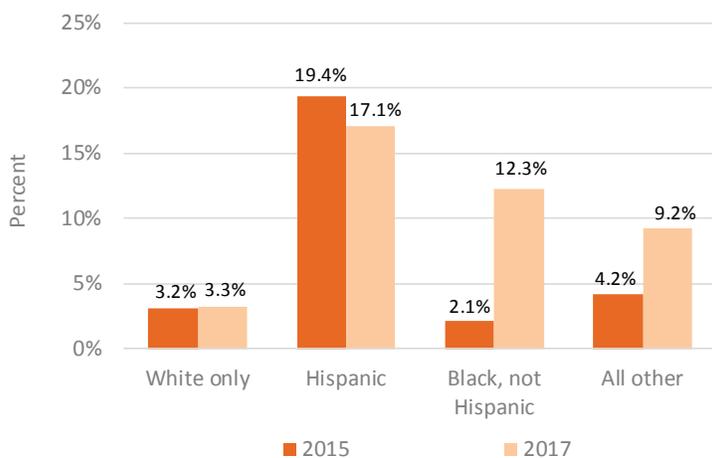
Source: Minnesota Health Access Survey.<sup>6</sup>

Sources of Health Insurance Coverage Over Time, Ramsey County



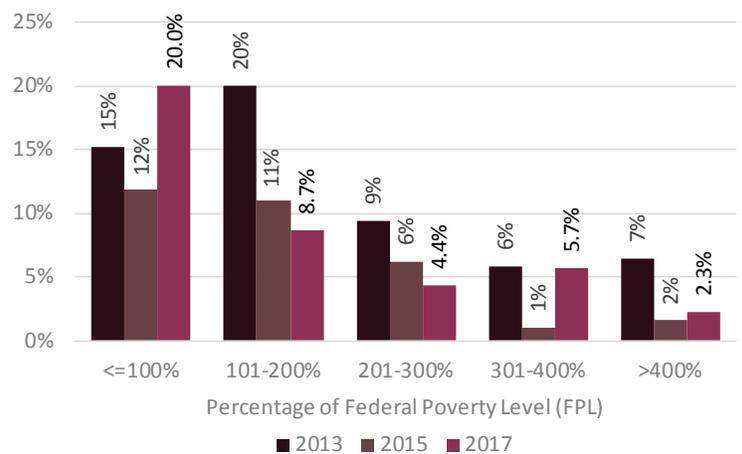
Source: Minnesota Health Access Survey.<sup>6</sup>

Uninsured by Race/Ethnicity, Ramsey County



Source: Minnesota Health Access Survey.<sup>6</sup>

Uninsurance Rate by Income, Ramsey County



Source: Minnesota Health Access Survey.<sup>6</sup>

<sup>6</sup> Minnesota Department of Health. Minnesota Health Access Survey. Personal communication from MDH Health Economics Division. July 2018.

## DESCRIPTION

Medical Assistance (MA) and MinnesotaCare (MnCare) provide health insurance to low income children and adults who do not have access to insurance through an employer or whose employer's insurance is too expensive.

MA provides health insurance for children in households with incomes up to 275 percent of the Federal Poverty Guideline (FPG), which is critical for low income working families who do not have family insurance through an employer and to parents without employment. Since the Affordable Care Act's (ACA) Medicaid expansion in 2014, many people who were previously ineligible have access to the programs.<sup>1</sup> Adults without children with incomes up to 133 percent of the FPG may now use MA, rather than below 75 percent of FPG before the ACA.

## HOW ARE WE DOING

In 2016 among Ramsey County residents, 116,832 adults and 81,856 children received either MA or MnCare. This is 30 percent of all adults and 67 percent of all children in Ramsey County. During that same year in Minnesota, 25 percent of adults and 47 percent of children received MA or MnCare. This comparison shows that a larger percentage of Ramsey County residents receive these programs, which is due to higher poverty in the county than in other areas of the state.

Since 2013, before the Medicaid expansion, participation increased by 39 percent for adults and 31 percent for children. Most of these people were not previously eligible.

## DISPARITIES

In 2016, 30 percent of children and 18 percent of adults receiving MA or MnCare had an unknown race/ethnicity. People are not required to provide race/ethnicity information. Due to the large proportion of people with unknown race/ethnicity, it is unknown if racial/ethnic disparities exist in receipt of medical insurance benefits. These insurance programs seek to reduce disparities by aiding those eligible via requirements income and other factors.

## RISK FACTORS

The biggest barrier to receipt of Medicaid for those who likely qualify is a lack of information about the program and not believing that they will qualify. Barriers include limited access to applications (either online or transportation to apply in person), language and literacy barriers, lack of required documentation, cognitive impairments, and no stable address or phone number.

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

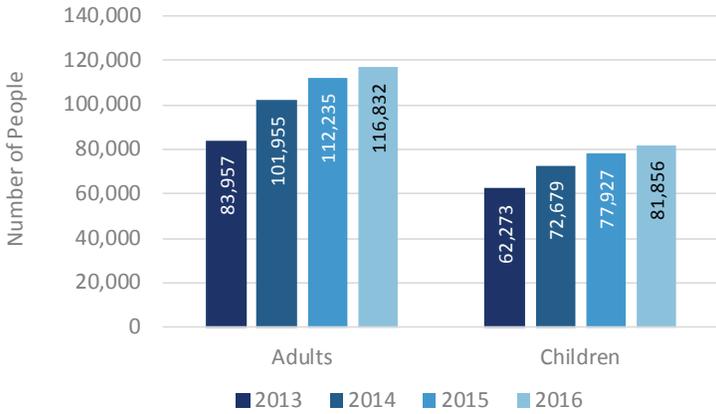
Saint Paul – Ramsey County Public Health and Ramsey County Financial Services provide referrals and/or assistance to uninsured clients to help them obtain health care coverage through Medical Assistance (MA) and MinnesotaCare (MnCare) programs. Saint Paul – Ramsey County Public Health maintains a surveillance role, monitoring the levels of MA and MnCare coverage in Ramsey County.

## Information to note

- Two-thirds of Ramsey County children receive health insurance from MA.
- The Medicaid expansion made many people eligible for MA who were not previously. Adults without children were the biggest beneficiaries of this expanded eligibility.
- Nearly one in every three adults in Ramsey County receive medical insurance from MA or MnCare.

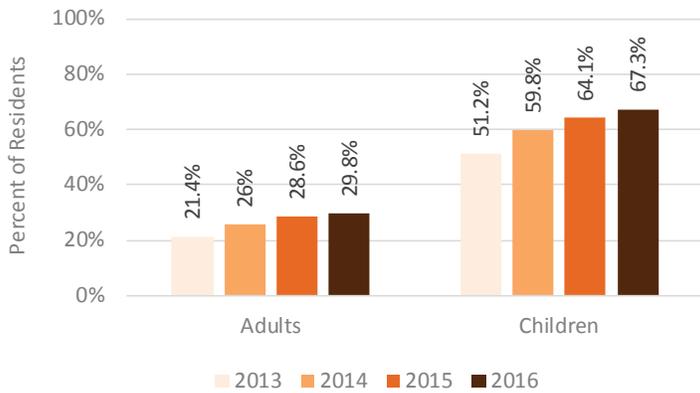
<sup>1</sup> "Medicaid and the Uninsured: Key Lessons to Consider for the 2014 Medicaid Expansion" (2012) The Henry J. Kaiser Family Foundation. Washington, D.C. Accessed on 09/08/2017. <https://kaiserfamilyfoundation.files.wordpress.com/2013/01/8355-es.pdf>

Adults and Children Receiving Medical Assistance or Minnesota Care, Ramsey County



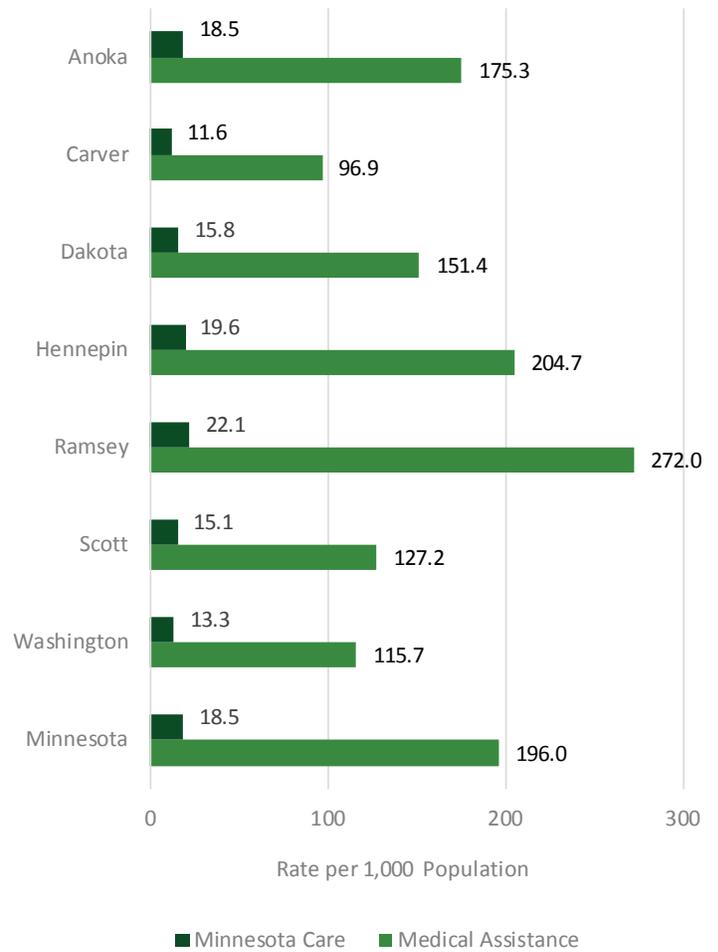
Source: Ramsey County Financial Assistance Services

Ramsey County Residents Receiving Medical Assistance or Minnesota Care



Source: Ramsey County Financial Assistance Services

Average Monthly Eligibles on Medical Assistance and Minnesota Care



Source: Minnesota Department of Human Services

# Preventive Care Among Publicly Insured Youth

## DESCRIPTION

Nationally representative data suggest that a large proportion of children and young adults in Medicaid have certain health conditions that can be identified or managed by preventive services and that many children were not receiving well-child checkups.<sup>1</sup> In the U.S., every state is required to provide quality well-child care for children eligible for Medicaid called early Periodic Screening, Diagnosis, and Treatment (EPSDT) as specified in Section 1905(r) of the Social Security Act. The EPSDT benefit provides comprehensive and preventive health care services for children under age 21 who are enrolled in Medicaid. EPSDT is key to ensuring that children and adolescents receive appropriate preventive, dental, mental health, and developmental, and specialty services.<sup>2</sup> In Minnesota, the program is called Child and Teen Checkups (C&TC) and is administered by the Minnesota Department of Human Services with technical and clinical assistance from the Minnesota Department of Health. Periodic examinations or screenings are delivered according to a schedule known as the Periodicity Schedule<sup>3</sup>, to assure that health problems are screened for, diagnosed, and treated early before they become more complex and treatment becomes costlier. The schedule is a minimum standard; more C&TC visits or screenings can be done and billed for as medically necessary. Children in out-of-home placement or foster care should receive C&TC visits more frequently. Clinical recommendations about best practices in well-child care and training about the required components is provided to all clinics who accept public insurance.<sup>4</sup> Ultimately, the state is responsible, but managed care plans may also have affirmative duties to ensure that enrollees are provided with the required screenings, diagnostic procedures, and treatment.<sup>5</sup>

## HOW WE ARE DOING

States submit data to the federal government including the participant ratio, which is the percentage of children by age group who received at least one screening among the group that was eligible for the screening. In Ramsey County, infants under 1 year, children ages 1-2, and children ages 6-9 met the federal requirement of 80% in federal fiscal year (FFY) 2017. Ramsey County exceeded the federal requirement of 80 percent for youth in foster care during FFY 2017. Ramsey County has never met the overall participation rate for youth in all age groups compared to Hennepin County which has met the overall participation rate each year beginning in 2013<sup>6</sup>.

## BENCHMARK INDICATOR

Federal Statutory Requirement: All children and young adults birth through 20 years on public insurance receive well-child checkups according to the Periodicity Schedule.  
Minimum Target: 80 percent of eligible youth

## DISPARITIES

Low-income youth have a distinct need for comprehensive care in order to lead healthy lives.<sup>7</sup> Comparing various age groups, Ramsey County publicly insured youth ages 15-21 have the lowest rates of child and teen checkups, followed closely by children 3-5 years.

## Information to note

- Ramsey County is not meeting the federal statutory requirement that 80% of eligible youth receive a child and teen checkup. Hennepin County has met the requirement for the past five years.
- Only 30% of Ramsey County's publicly insured children ages 3 - 5 receive federally required preventive care checkups.

<sup>1</sup> Medicaid Preventive Services: Concerted Efforts Needed to Ensure Beneficiaries Receive Services. United States Government Accountability Office. <https://www.gao.gov/assets/300/293989.pdf>. Published August 14, 2009. Accessed September 2018.

<sup>2</sup> Early and Periodic Screening, Diagnosis, and Treatment. Health Resources & Services Administration. <https://mchb.hrsa.gov/maternal-child-health-initiatives/mchb-programs/early-periodic-screening-diagnosis-and-treatment>. Accessed August 2018.

<sup>3</sup> Minnesota Child and Teen Checkups (C&TC) Schedule of Age-Related Screening Standards. Minnesota Department of Human Services. 2018. <https://edocs.dhs.state.mn.us/lfsrserver/Public/DHS-3379-ENG>. Accessed September 2018.

<sup>4</sup> Child and Teen Checkups (C&TC). Minnesota Department of Human Services. <https://mn.gov/dhs/people-we-serve/children-and-families/health-care/health-care-programs/programs-and-services/ctc.jsp>. Accessed September 2018.

<sup>5</sup> Whitener K. EPSDT: A primer on Medicaid's pediatric benefit. Georgetown University. 2016. <https://ccf.georgetown.edu/2016/03/04/what-is-epsdt-medicaid-benefit-big-idea/>. Published March 4, 2016. Accessed September 2018.

<sup>6</sup> Child & Teen Checkups Program. Participation Reports. Minnesota Department of Human Services. [https://www.dhs.mn.gov/main/idcplg?IdcService=GET\\_DYNAMIC\\_CONVERSION&RevisionSelectionMethod=LatestReleased&dDocName=id\\_018157](https://www.dhs.mn.gov/main/idcplg?IdcService=GET_DYNAMIC_CONVERSION&RevisionSelectionMethod=LatestReleased&dDocName=id_018157). Accessed September 2018.

<sup>7</sup> 1115 Medicaid Waiver Element: EPSTD. FamiliesUSA. <https://familiesusa.org/1115-waiver-element-epsdt>. Accessed September 2018.

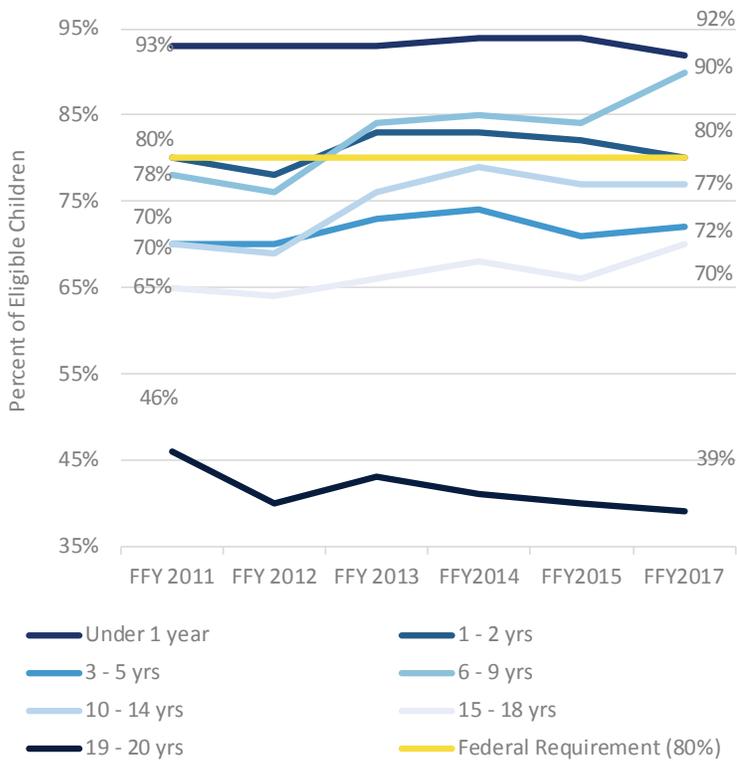
# Preventive Care Among Publicly Insured Youth

## RISK FACTORS

Parents who are new to the U.S. may not understand the importance of preventive care medical visits for their children.

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

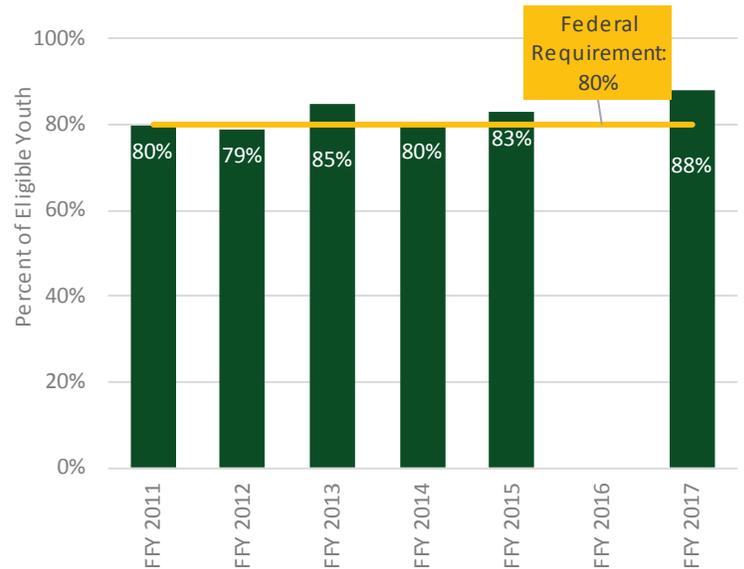
Youth Receiving a Child and Teen Checkup by Age Group Over Time\*, Ramsey County



\* Data unavailable for FFY 2016.

Source: U.S. Department of Health and Human Services CMS-416 reports.

Foster Care Youth Receiving a Child and Teen Checkup\* Ramsey County



\* Data unavailable for FFY2016.

Source: U.S. Department of Health and Human Services CMS-416 reports.

# Pregnancy Prevention and Condom Use - Youth

## DESCRIPTION

Used consistently and correctly, condoms are 98 percent effective and can protect against HIV, unintended pregnancy and most sexually transmitted diseases.<sup>1</sup> Condoms and female condoms are the only methods of birth control that also help prevent the spread of sexually transmitted diseases (STDs), including HIV. Condoms are readily available at local stores, some community health centers, and on the internet.

## HOW ARE WE DOING

In Ramsey County in 2016, 13 percent of males and 9 percent of females in 9th-grade and 33 percent of males and 31 percent of females in 11th-grade reported being sexually active. When asked if they had ever spoken to their sexual partner(s) about preventing pregnancy, 31 percent of 9th-graders and 21 percent of 11th-graders said they never had. Among sexually active 11th-graders, the most common birth control method reported was condoms (48 percent). Over 9 percent of students took no action to prevent pregnancy.

Between 88- 91 percent of students used some type of contraceptive to prevent pregnancy in 2016. This does not meet the Healthy People target of 91.6 percent. Among sexually active 11th-graders, about 69 percent of males and 56 percent of females reported using a condom the last time they had sex.<sup>2</sup> This does not meet the Healthy People goal of 81.5 percent for males, and barely reaches the 55.6 percent goal for females.

Among sexually active Minnesota college students in 2015, about 48 percent reported using a condom the last time they had vaginal intercourse.<sup>3</sup> Six percent took no action to prevent pregnancy.

## BENCHMARK INDICATOR

Healthy People 2020:

1) Increase the proportion of females at risk of unintended pregnancy or their partners who used contraception at most recent sexual intercourse.

U.S. Target: 91.6 percent.

2) Increase the proportion of sexually active males aged 15 to 19 years who used a condom at last intercourse.

U.S. Target: 81.5 percent

3) Increase the proportion of sexually active females aged 15 to 19 years who used a condom at last intercourse.

U.S. Target: 55.6 percent<sup>4</sup>

## DISPARITIES

Nationally, young, gay and bisexual males have disproportionately high rates of HIV, syphilis and other STDs. Adolescent, lesbian and bisexual females are more likely to have ever been pregnant than their heterosexual peers.<sup>5</sup>

## RISK FACTORS

Ineffective use of a condom is a risk factor for pregnancy, HIV and STDs. To ensure effectiveness of a condom, they should not be reused or doubled up; should not be

- Among sexually active Ramsey County youth in 2016, about 31% of 9th-graders and 21% of 11th-graders report that they've never spoken with their sexual partner(s) about preventing pregnancy.
- In a 2015 survey, 6% of college students in Minnesota reported taking no action to prevent unintended pregnancy.
- Ramsey County is not meeting the Healthy People 2020 target for youth who report using a contraceptive to prevent unintended pregnancy.

<sup>1</sup>Condom Effectiveness. Centers for Disease Control Web site. <https://www.cdc.gov/condomeffectiveness/index.html> Accessed April 2018.

<sup>2</sup>Minnesota Student Survey. Minnesota Department of Education Web site. <http://w20.education.state.mn.us/MDEAnalytics/Data.jsp>. Accessed October 9, 2017.

<sup>3</sup>College Student Health Survey Report 2015. University of Minnesota Web site. <https://safesupportivelearning.ed.gov/resources/2015-college-student-health-survey-report-health-and-health-related-behaviors-university> Accessed April 2018.

<sup>4</sup>Healthy People 2020. <https://www.healthypeople.gov/2020/data-search/search-the-data#topic-area=3521>. Accessed April 2018.

<sup>5</sup>Health Risks among Sexual Minority Youth. Centers for Disease Control and Prevention Web site. <https://www.cdc.gov/healthyyouth/disparities/smy.htm>. Accessed April 2018.

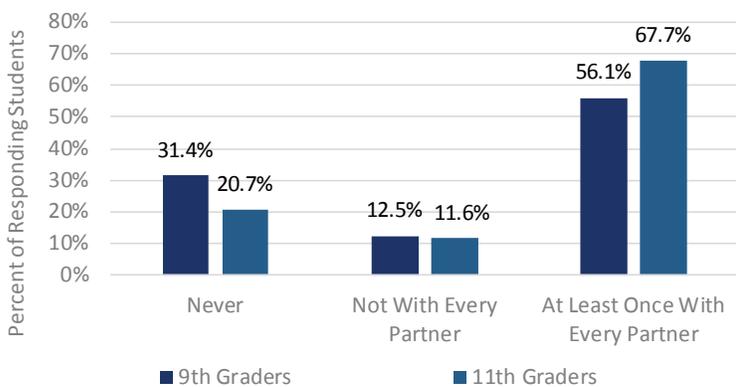
# Pregnancy Prevention and Condom Use - Youth

exposed to heat/friction (e.g., in wallet); and should not be used with oil-based products like baby oil, lotion, petroleum jelly or cooking oil.<sup>1</sup>

## WHAT RAMSEY COUNTY IS DOING

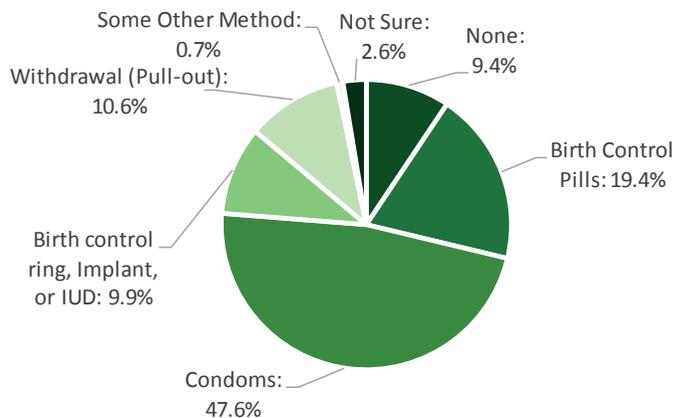
text

Students Discussing Pregnancy Prevention with Partners(s), Ramsey County, 2016



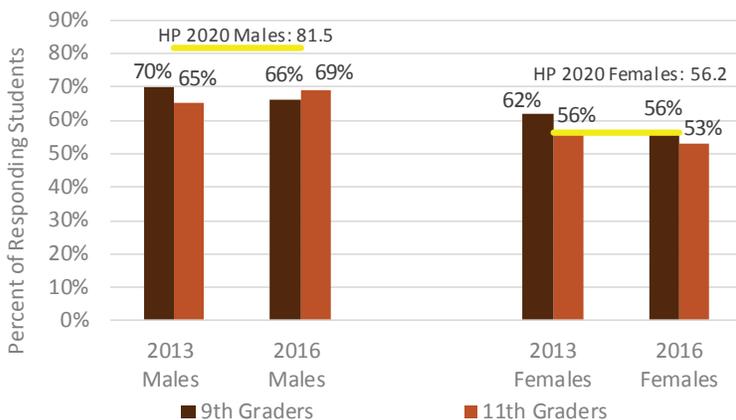
Source: Minnesota Student Survey. Minnesota Department of Education Web site.<sup>2</sup>

Birth Control Method Last Used by Sexually Active 11th graders, Ramsey County, 2016



Source: Minnesota Student Survey. Minnesota Department of Education Web site.<sup>2</sup>

Students Using a Condom at Last Sexual Intercourse, Ramsey County



Source: Minnesota Student Survey. Minnesota Department of Education Web site.<sup>2</sup>

<sup>1</sup>Condom Effectiveness. Centers for Disease Control Web site. <https://www.cdc.gov/condomeffectiveness/index.html> Accessed April 2018.

<sup>2</sup>Source: Minnesota Student Survey. Minnesota Department of Education Web site. <http://w20.education.state.mn.us/MDEAnalytics/DataTopic.jsp?TOPICID=242>. Accessed April 2018.

# Delay of Care – Prescriptions

## DESCRIPTION

Research estimates that three out of four Americans do not take their medication as directed. This can have dangerous, sometimes deadly consequences. For example, not keeping high blood pressure controlled could lead to a heart attack or stroke. Every year, poor medication adherence takes the lives of 125,000 Americans, and costs the health care system nearly \$300 billion in additional doctor visits, emergency department visits and hospitalizations. There are several reasons why people may not take medication as prescribed: they may forget, be fearful, lack understanding, question effectiveness or for many, the cost is not affordable.<sup>1</sup>

## HOW WE ARE DOING

In 2014, about 3.5 percent of Americans were unable to obtain or were delayed in obtaining necessary prescription medicines, which does not meet the Healthy People goal.<sup>2</sup> In Ramsey County in 2014, among adults 25 years or older that take prescription medications, about 10 percent could not afford their prescriptions.<sup>3</sup> These two data points are not comparable.

## BENCHMARK INDICATOR

Healthy People 2020: Reduce the proportion of persons who are unable to obtain or delay in obtaining necessary prescription medicines.<sup>2</sup>  
U.S. Target: 2.8 percent.

## DISPARITIES

People with lower incomes report being unable to afford prescription medications at significantly higher rates than higher income groups. In the Metro area, 23.8 percent of adults with lower income (<200 percent poverty) had medicine use delays because of cost, compared to 6.9 percent of adults with higher income (>200 percent poverty).<sup>4</sup> There are also racial and ethnic differences related to delaying medicine use. Research points to two aspects that affect prescription drug use: access and amount used. Research shows that African-American and Hispanic individuals have the highest rates of not being able to get prescription drugs. This could be due to lack of access to a provider to prescribe drugs, or the inability to afford prescriptions.<sup>5</sup>

## RISK FACTORS

Being able to take medicine as prescribed (adherence) is a complex process impacted by five sets of factors:

- Social/ economic factors (e.g., insurance coverage, medication cost, language proficiency, literacy)
- Provider-patient/ health care system factors (e.g., high drug costs, communication, education materials)
- Condition-related factors (e.g., severity, chronic, lack of symptoms, depression, disability)
- Therapy-related factors (e.g., side effects, duration, complexity, lifestyle changes, social stigma)
- (continued on back)

## Information to note

- In Ramsey County in 2014, among adults 25 years or older that take prescription medications, about 10 percent could not afford their prescriptions.
- In the Metro area, 23.8% of adults with lower incomes (<200% poverty) had medicine use delays because of cost, compared to 6.9 percent of adults with higher incomes (>200% poverty).

<sup>1</sup>American Heart Association. Medication Adherence – Taking your meds as directed. [http://www.heart.org/HEARTORG/Conditions/More/ConsumerHealthCare/Medication-Adherence---Taking-Your-Meds-as-Directed\\_UCM\\_453329\\_Article.jsp#.WzueL5VX6Uk](http://www.heart.org/HEARTORG/Conditions/More/ConsumerHealthCare/Medication-Adherence---Taking-Your-Meds-as-Directed_UCM_453329_Article.jsp#.WzueL5VX6Uk). Accessed June 2018.

<sup>2</sup>Centers for Disease Control and Prevention. Healthy People 2020. <https://www.healthypeople.gov/2020/topics-objectives/topic/Access-to-Health-Services/objectives>. Accessed June 2018.

<sup>3</sup>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 July 2018.

<sup>4</sup>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 2018.

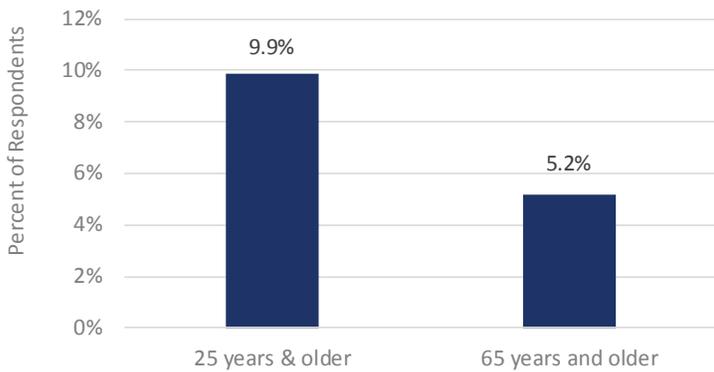
<sup>5</sup>Wang T, Shi L, Nie X, Zhu J. Race/Ethnicity, insurance, income and access to care: the influence of health status. *International Journal for Equity in Health*. 2013; 12:29. <https://equityhealthj.biomedcentral.com/articles/10.1186/1475-9276-12-29>. Published May 11, 2013. Accessed July 2018.

- Patient-related factors (e.g., disabilities, perceived risk and benefit, fear, stress, expectations, motivation)<sup>6</sup>

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

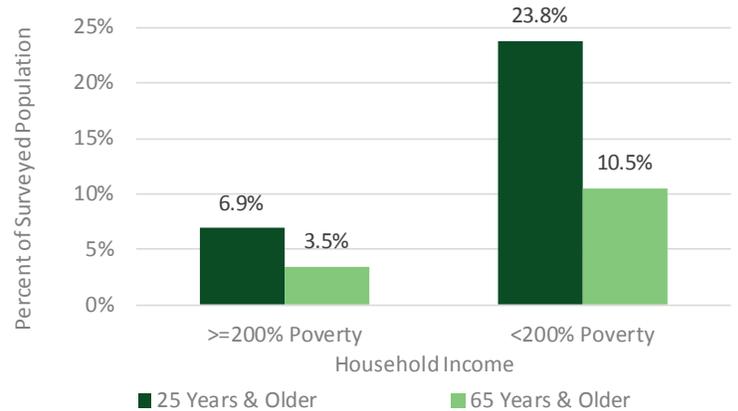
Prescription medication can be a very expensive component to health care. To increase options to access affordable prescription medication, Ramsey County makes low-cost prescription program enrollment information available at various Ramsey County sites and provides information to clients receiving services.

Delay of Medicine Use Due to Affordability by Age Group, Six County Metro, 2014



Source: Metro Public Health Analyst Network, Metro SHAPE Six County Data.<sup>7</sup>

Delay of Medicine Use Due to Affordability by Income, Six County Metro, 2014



Source: Metro Public Health Analyst Network. Metro SHAPE Six County Data Book.<sup>8</sup>

<sup>6</sup> World Health Organization. Overview of Medication Adherence. Where Are We Today? [http://adultmedication.com/OverviewofMedicationAdherence\\_4.html](http://adultmedication.com/OverviewofMedicationAdherence_4.html). Accessed July 2018.

<sup>7</sup> 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 August 15, 2017.

<sup>8</sup> 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 July 2018.

# Medical Cannabis

## DESCRIPTION

Marijuana prohibition began 80 years ago when the federal government put a ban on the sale, cultivation, and use of the cannabis plant and remains illegal on the federal level. Americans continue to warm to legalizing marijuana, with 64 percent now saying its use should be legal. This is the highest level of public support the Gallup organization has found in nearly a half-century of measurement.<sup>1</sup> As of April 2018, 10 states and Washington, D.C., have legalized the recreational use of marijuana. An additional 20 states, along with U.S. territories Puerto Rico and Guam, allow the use of cannabis for medical purposes.<sup>2</sup> Minnesota's medical cannabis program began distributing medical cannabis to patients in July 2015 after registering two manufacturers: Minnesota Medical Solutions, LLC (operating in Minneapolis, Rochester, Moorhead, Bloomington) and LeafLine Labs, LLC (operating in Eagan, St. Cloud, Hibbing, St. Paul).<sup>3</sup> Health care practitioners must be enrolled in the medical cannabis registry before certifying a patient's qualifying medical condition. Qualifying patients must also be enrolled in the medical cannabis registry to be eligible to legally purchase and possess medical cannabis.

## HOW WE ARE DOING

The number of health practitioners registering with the Minnesota's medical cannabis program continues to increase. As of March 31, 2018, the registry system had 1,169 approved practitioners. At the same time, there were 9,435 patients actively enrolled in the patient registry, an increase of 19 percent from March 2017. Of all the Minnesotans in the medical cannabis patient registry, 72 percent of patients live in St. Paul or Minneapolis, 86.6 percent are white, 5.2 percent are black and 2.6 percent are American Indian. Intractable pain is the number one reason for participation in the program (experienced by 67 percent of patients).<sup>3</sup>

A recent study conducted by the Minnesota Department of Health published in March 2018, reported that a significant number of Minnesota medical cannabis patients with intractable pain reported pain reduction of 30 percent or more. The study also found that among patients who were using opioid medications when they started using medical cannabis, 63 percent reduced or eliminated opioid use after six months. Likewise, the results of a Health Care Practitioner Survey revealed that 38 percent of intractable pain patients reduced opioid medication (nearly 60 percent of these cut use of at least one opioid by half or more), 3 percent of patients reduced benzodiazepines and 22 percent of patients reduced other pain medications.<sup>4</sup>

## DISPARITIES

Medical cannabis can only benefit Minnesotans who can afford to pay for it themselves. Health insurance does not cover the cost of medical cannabis, the costs of the medical certification appointment or annual registration fee. The registration fee of \$200 is reduced to \$50 if individuals receive CHAMPVA, Social Security Disability (SSD) benefits, Supplemental Security Income (SSI) or participate in Medicaid or MinnesotaCare. The prescription costs are dependent on the type and amount of cannabis.

- Among patients who were using opioid medications when they started using medical cannabis, 63% reduced or eliminated opioid use after 6 months.
- There are disparities in access to medical cannabis - it can only benefit Minnesotans who can afford to pay for it themselves.

<sup>1</sup> McCarthy J. Record-high support for legalizing marijuana use. Gallup. 2017. [http://news.gallup.com/poll/221018/record-high-support-legalizing-marijuana.aspx?g\\_source=Politics&g\\_medium=newsfeed&g\\_campaign=tiles](http://news.gallup.com/poll/221018/record-high-support-legalizing-marijuana.aspx?g_source=Politics&g_medium=newsfeed&g_campaign=tiles). Accessed April 26, 2018.

<sup>2</sup> Gonzalez-Ramirez A. All the states where weed is legal. Refinery29. <https://www.refinery29.com/2018/04/196771/where-is-weed-legal-state-marijuana-laws>. Published April 20, 2018. Accessed April 27, 2018.

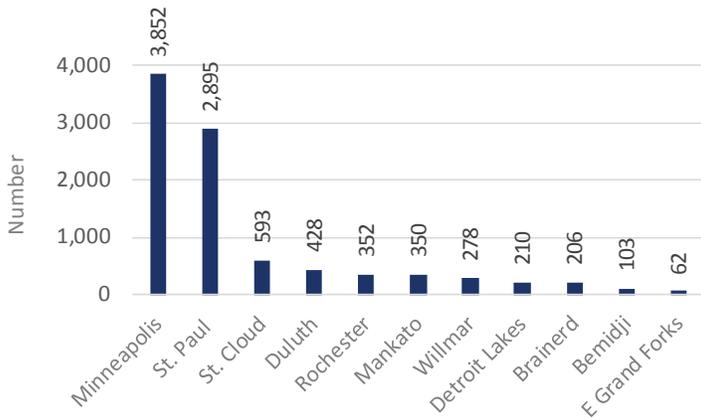
<sup>3</sup> Minnesota Department of Health. Medical cannabis program update. <http://www.health.state.mn.us/topics/cannabis/about/update0418.pdf>. Published April 2018. Accessed April 26, 2018.

<sup>4</sup> Minnesota Department of Health. Intractable pain patients in the Minnesota medical cannabis program: Experience of enrollees during the first five months. <http://www.health.state.mn.us/topics/cannabis/about/ipreport.pdf>. Published 2017. Accessed March 6, 2018.

## WHAT RAMSEY COUNTY IS DOING

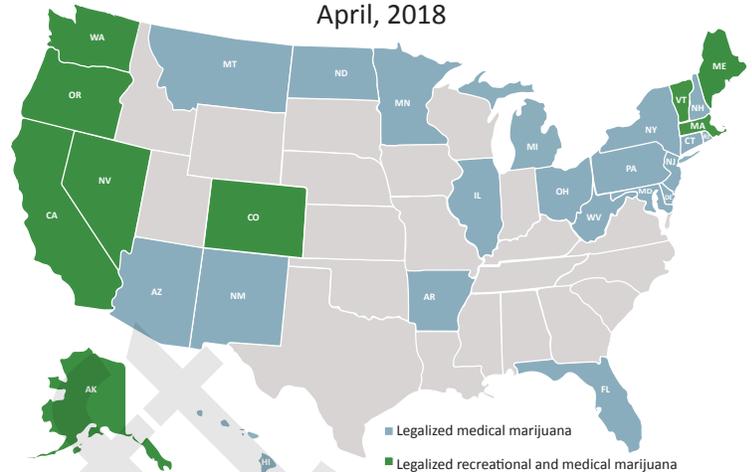
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Active Patients in the Medical Cannabis Registry, Minnesota, March 31, 2018

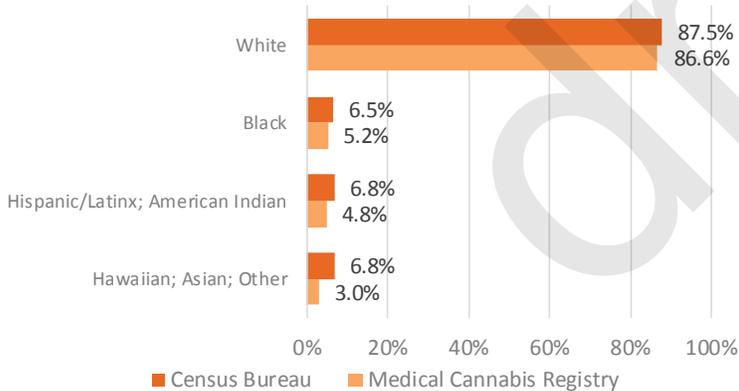


Source: Minnesota Department of Health.<sup>5</sup>

States Where Marijuana is Legal April, 2018

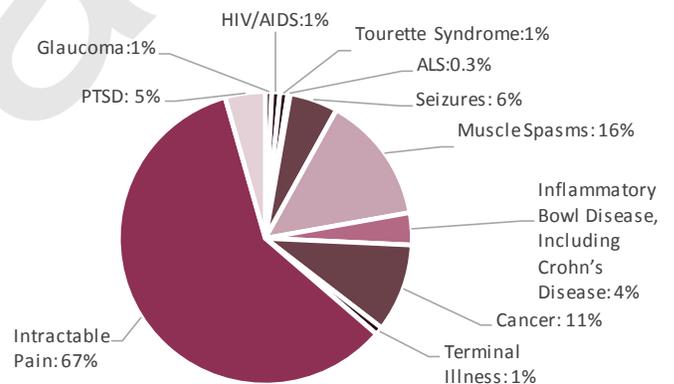


Medical Cannabis Patients by Race/Ethnicity Compared to Overall State Demographics, March 31, 2018



Source: Minnesota Department of Health.<sup>6</sup>

Medical Cannabis Patients by Condition\*



\*Patients certified total more than 100% because 11.2% of the 7022 patients are currently certified for more than one condition; in this chart each certified condition is counted.

Source: Minnesota Department of Health Website.<sup>7</sup>

<sup>5</sup> Source: Minnesota Department of Health. Medical Cannabis Program Update, April 2018. <http://www.health.state.mn.us/topics/cannabis/about/update1017.pdf>. Accessed April 2018.

<sup>6</sup> Source: Minnesota Department of Health. Medical Cannabis Program Update, April, 2018. <http://www.health.state.mn.us/topics/cannabis/about/update0418.pdf>. Accessed April 2018.

<sup>7</sup> Source: Medical Cannabis Program Update, October 2017. Minnesota Department of Health Website. <http://www.health.state.mn.us/topics/cannabis/about/update1017.pdf>. Accessed February 2018.

# Health Workforce and Primary Source of Care

## DESCRIPTION

Together, health insurance, local care options, and a usual source of care help to ensure access to health care. Having access to care allows individuals to enter the health care system, find care easily and locally, pay for care, and get their health needs met. Access to care requires not only financial coverage, but also access to providers. While high use of specialist physicians has been shown to be associated with higher (and perhaps unnecessary) utilization, sufficient availability of primary care physicians, dentists and mental health providers is essential for preventive and primary care, and, when needed, referrals to appropriate specialty care.<sup>1</sup> Having a usual source of care is associated with a higher likelihood of appropriate care, and a usual source of care is associated with better health outcomes.<sup>2</sup>

## HOW WE ARE DOING

In 2015, the Ramsey County ratio of primary care physicians to population was 942:1, and was the third lowest ratio among Twin Cities metro counties.<sup>3</sup> The ratio of dentists to population in Ramsey County was 1210:1 during 2016 and the ratio of mental health providers during 2017 in Ramsey County was 272:1, the lowest ratio among metro counties of the Twin Cities.<sup>3</sup> Based on data from the Metro SHAPE 2014 Adult Survey, 79.8 percent of Ramsey County adults aged 25 and older stated they have at least one person they think of as their personal doctor or health care provider. This does not meet the Healthy People goal. Reports of having a personal doctor or health care provider varied by household income. For metro residents with a household income below 200 percent of the federal poverty level (FPL), 25.3 percent reported they did not have someone they identified as their personal doctor, compared to 19.6 percent of individuals with a household income greater than or equal to 200 percent of the FPL. Young people are also much less likely to have a specific source of ongoing care. Among metro adults, 41.1 percent of those 25-34 years do not have a personal doctor, compared to only 3.4 percent of those 75 years or older.<sup>4</sup>

## BENCHMARK INDICATOR

Healthy People 2020<sup>5</sup>: Increase the proportion of adults aged 18 to 64 years who have a specific source of ongoing care.

U.S. Target: 89.4 percent.

## DISPARITIES

Access to care often varies based on race, ethnicity, socioeconomic status, age, sex, disability status, sexual orientation, gender identity, and residential location.<sup>5</sup> People with low incomes are less likely than those with higher incomes, and the uninsured were twice as likely as the insured to lack a usual care source.<sup>2</sup>

## RISK FACTORS

Barriers to health services include the high cost of care, inadequate or no insurance coverage, lack of availability of services, and lack of culturally competent care.<sup>5</sup>

- Ramsey County's ratio of mental health providers to population is the lowest among counties in the metro area.
- About 20% of adults aged 25 and older in Ramsey County do not have at least one person they think of as their personal doctor or health care provider.

<sup>1</sup> Steinbrook R. Easing the shortage in adult primary care-- Is it all about money? N Engl J Med. 2009;360:2696-2699.

<sup>2</sup> Clancy C, Munier W, Brady J, et al. 2012 National healthcare quality report. Rockville, MD: Agency for Healthcare Research and Quality (AHRQ); 2013.

<sup>3</sup> Area Health Resource File/American Medical Association, Area Health Resource File/National Provider Identification file, and Centers for Medicare and Medicaid Services (CMS). National Provider Identification file. <http://www.countyhealthrankings.org/app/minnesota/2018/downloads>. Accessed July 2018.

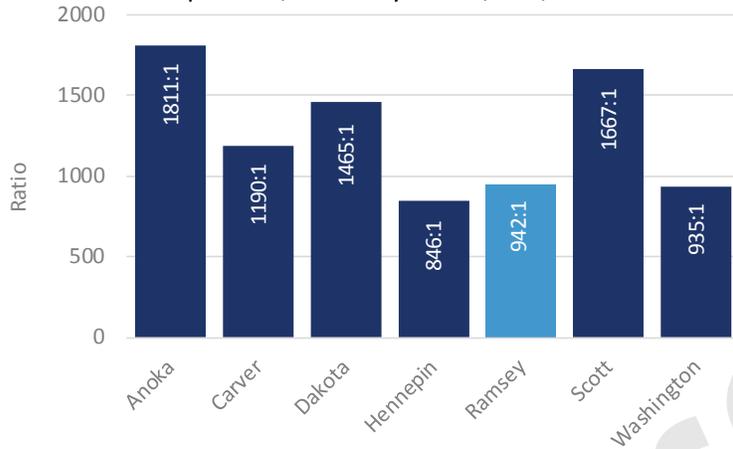
<sup>4</sup> Metro Public Health Analyst Network. Metro SHAPE Six County Data Book. 2014; Saint Paul – Ramsey County Public Health data set.

<sup>5</sup> Access to Health Services. Healthy People 2020. <https://www.healthypeople.gov/2020/topics-objectives/topic/Access-to-Health-Services/objectives>. Accessed July 2018.

## WHAT RAMSEY COUNTY IS DOING

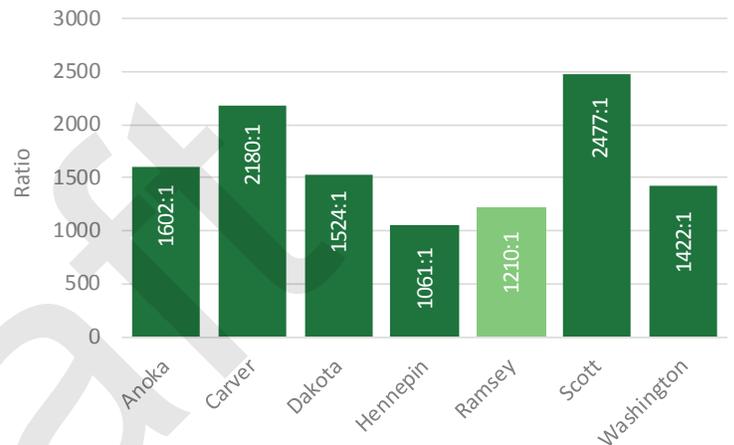
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Proportion of Primary Care Physicians to Population, 7-County Metro, MN, 2015



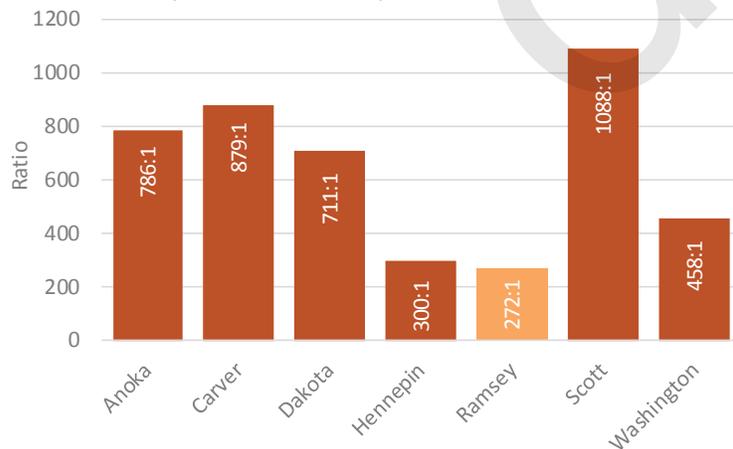
Source: Area Health Resource File/American Medical Association.<sup>6</sup>

Proportion of Dentists to Population, 7-County Metro, MN, 2016



Source: Area Health Resource File/National Provider Identification file.<sup>7</sup>

Proportion of Mental Health Providers to Population, 7-County Metro, MN, 2017



Source: CMS/National Provider Identification file.<sup>8</sup>

<sup>6</sup> Area Health Resource File/American Medical Association. <http://www.countyhealthrankings.org/app/minnesota/2018/downloads>. Accessed July 2018.

<sup>7</sup> Area Health Resource File/National Provider Identification file. <http://www.countyhealthrankings.org/app/minnesota/2018/downloads>. Accessed July 2018.

<sup>8</sup> CMS/National Provider Identification file. <http://www.countyhealthrankings.org/app/minnesota/2018/downloads>. Accessed July 2018.

# Emergency Department Visits

## DESCRIPTION

Rates of Emergency Department (ED) use for treatment of conditions that are potentially preventable have been widely used as an indicator of limited access to primary care, with variations in these rates across groups reflecting disparities in access.<sup>1,2,3</sup> Differences in potentially preventable ED use by ZIP code or other socio-economic factors can inform us about barriers to primary care that may exist for certain populations of the county and provide insight into the relative depth and success of interventions.

## HOW WE ARE DOING

Among ED visits during 2010-2014 made by Ramsey County residents, 77.2 percent were potentially preventable. The rate of potentially preventable ED visits is 687 per 1,000 residents.

## DISPARITIES

Children under 5 had the highest rates of potentially preventable ED visits followed by visits among 20 to 24-year-olds. Over half of potentially preventable visits were made by residents who live in high poverty ZIP codes.

## RISK FACTORS

Residents receiving publicly funded insurance i.e., Medical Assistance, may be more likely to visit an emergency department. Medicaid patients use the emergency room at twice the rate of those with private insurance, according to the Centers for Medicare & Medicaid Services.<sup>4</sup>

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

Thousands of Ramsey County residents used emergency departments under circumstances and with conditions that may be more appropriately managed in other care settings during 2010-2014. To successfully reduce potentially preventable ED use, we need to understand the multifaceted reasons patients visit the ED. Hearing directly from patients will help identify those reasons. To better understand causal pathways and to build a model of patient-centered care for Ramsey County residents, we must include the patient perspective. Saint Paul – Ramsey County Public Health and local hospitals are continuing to explore ED utilization by designing a study that will help us learn directly from patients themselves why they chose to visit the ED.

(continued on back)

## Information to note

- **Potentially Preventable Definition:** The nature of the condition was potentially preventable if timely and effective ambulatory care had been received during the episode of illness.
- **77.2% of ED visits made by Ramsey County residents were potentially preventable.**

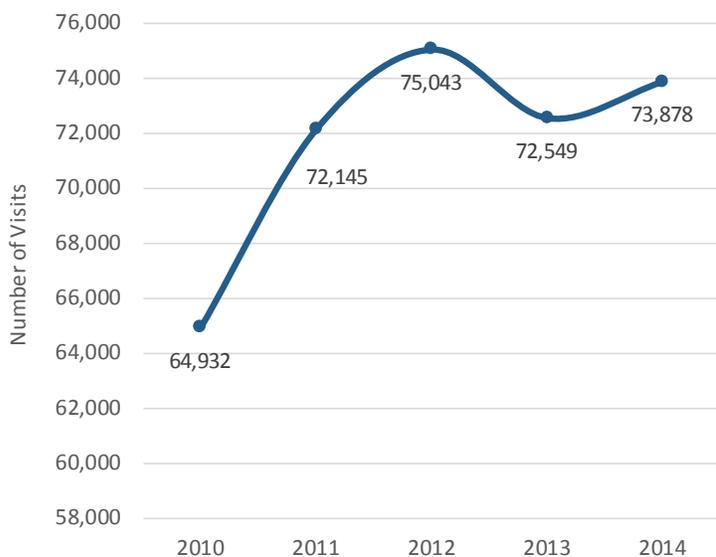
<sup>1</sup> Falik M, Needleman J, Wells B, Korb J. Ambulatory care sensitive hospitalizations and emergency visits: experiences of Medicaid patients using federally qualified health centers. National Center for Biotechnology Information. 2001; 39(6):551-561. <https://www.ncbi.nlm.nih.gov/pubmed/11404640>. Accessed August 2018.

<sup>2</sup> Epstein A. The role of public clinics in preventable hospitalizations among vulnerable populations. National Center for Biotechnology Information. 2001; 36(2):405-420. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1089231/>. Accessed August 2018.

<sup>3</sup> Hossain M, Laditka J. Using hospitalization for ambulatory care sensitive conditions to measure access to primary health care: an application of spatial structural equation modeling. Int J Health Geogr. 2009; 8:51. <https://doi.org/10.1186/1476-072X-8-51>.

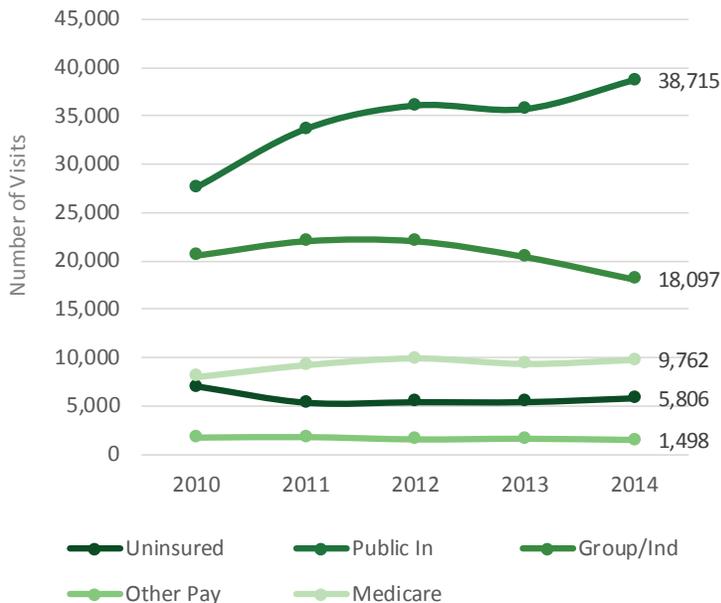
<sup>4</sup> Mann C. Reducing nonurgent use of emergency departments and improving appropriate care in appropriate settings. U.S. Department of Health and Human Services. 2014. <https://www.medicaid.gov/federal-policy-guidance/downloads/cib-01-16-14.pdf>. Accessed August 2018.

### Potentially Preventable ED Visits, Ramsey County Residents



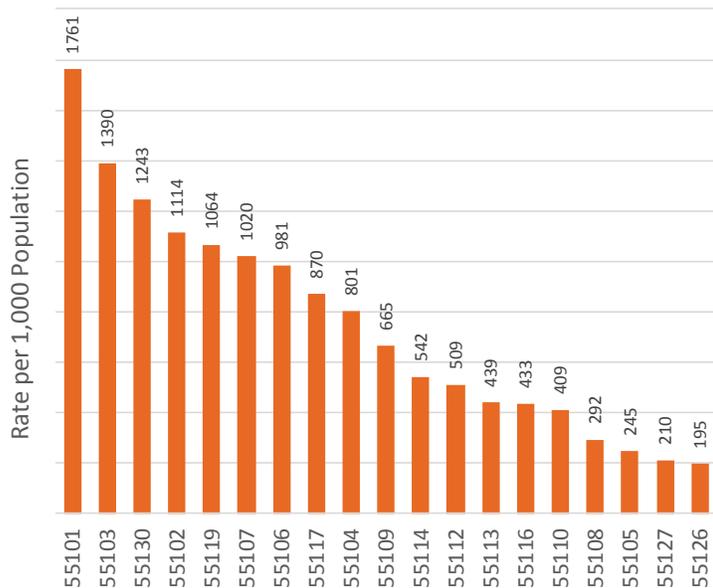
Source: Saint Paul - Ramsey County Public Health.

### Potentially Preventable ED Visits by Payer Group and Year



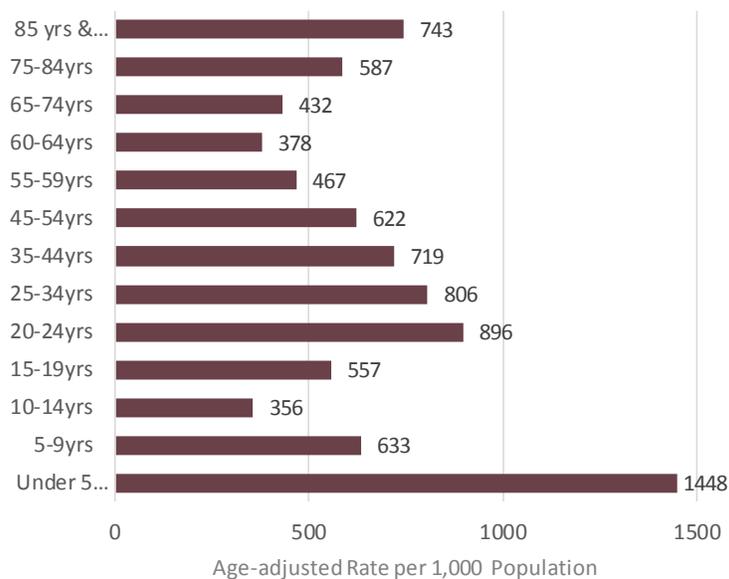
Source: Saint Paul - Ramsey County Public Health.

### Potentially Preventable ED Visits by Zipcode, Ramsey County, 2010-2014



Source: Saint Paul - Ramsey County Public Health.

### Potentially Preventable ED Visits by Age Group, Ramsey County, 2010-2014



Source: Saint Paul - Ramsey County Public Health.

## DESCRIPTION

Parks are an important component in supporting healthy communities in Ramsey County. They support good health by increasing physical activity, improving mental health, and supporting community interaction and social connectivity.<sup>1</sup> They provide a safe and accessible venue for people to play and exercise away from potentially hazardous situations, like busy streets or commercial zones. Parks also have environmental benefits, such as reducing air and water pollution and mitigating the urban heat island effect. These environmental benefits, in turn, protect the health of residents.<sup>2</sup> Access to parks is largely influenced by proximity to parks. The closer one lives to a park, the more likely the park will be used for physical activity. In addition, those who feel protected from traffic, crimes and other hazards are more likely to utilize parks.<sup>2</sup>

## HOW WE ARE DOING

In Ramsey County, 81.2 percent of the population has access to a park within 1/2 mile.<sup>3</sup>

## DISPARITIES

In Minnesota, white people use parks nearly twice as often as other populations, and rarely note any safety concerns, while populations of color are more likely to use the parks for fishing, special events and picnicking, and are more likely to note safety concerns about being in the relatively isolated spaces of regional parks. Park accessibility varies across Minnesota, and is a concern for adults and children with disabilities.<sup>4</sup>

## RISK FACTORS

Nationally, factors that limit access to parks include:<sup>1</sup>

- Long distances to parks;
- Lack of physical infrastructure (e.g., incomplete or disconnected streets, lack of pedestrian crossings, lack of adequate street lighting, etc.);
- Crime and traffic safety concerns (e.g., dangerous or busy traffic areas, physical designs in parks that influence crime); and
- Lack of collaboration between local government agencies, nonprofits and community organizations in working toward unified park accessibility goals.

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

Ramsey County is home to nine county parks, six regional parks and five regional trail corridors. Many parks include lake access and provide a variety of recreation opportunities, such as boating, picnicking, play areas and swimming. Ramsey County is addressing the potential risk factors cited above in part through its “Active Living Ramsey Communities” (ALRC) initiative. Developed in 2004, ALRC supports active living by encouraging walking, taking the stairs and using recreational facilities. Ramsey County departments (including Parks & Recreation, Saint Paul – Ramsey County Public Health, Public Works, Libraries and Regional Railroad Authority) join municipalities, schools, businesses, health care entities, nonprofits, community groups, and residents to help more people engage in physical activity. The group works to reduce physical activity health disparities and support a way of life that makes physical activity in our neighborhoods and communities safer and easier, through initiatives such as the *Go Ramsey* mapping portal and the *Be Active! Be Green!* bench initiative.

## Information to note

- Ramsey County is home to nine county parks, six regional parks and five regional trail corridors.
- In Ramsey County, 81.2% of the population has access to a park within 1/2 mile.

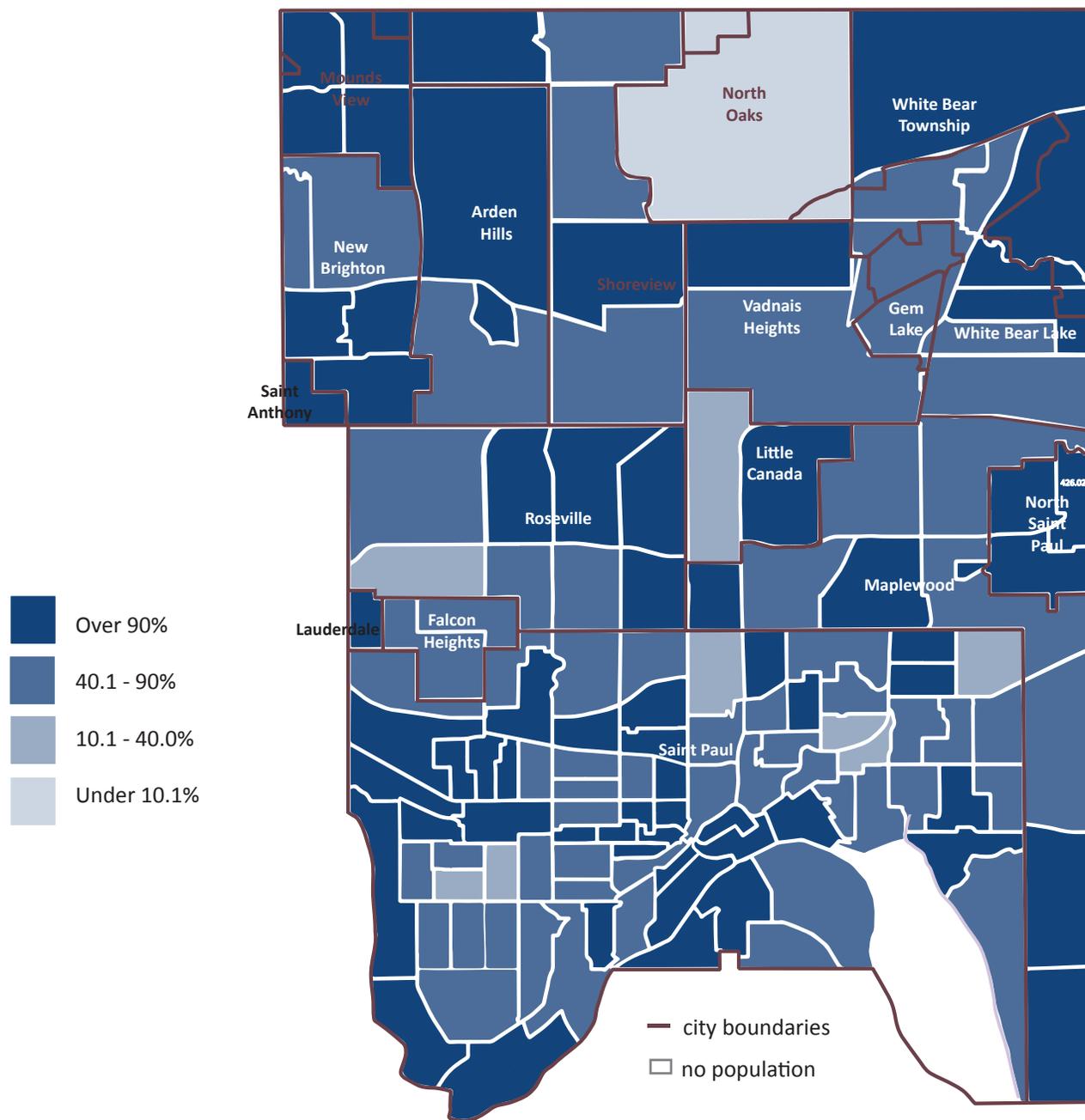
<sup>1</sup> Safe Routes to Parks: Improving Access to Parks through Walkability. National Recreation and Park Association. <http://www.nrpa.org/contentassets/f768428a39aa4035ae55b2aaff372617/park-access-report.pdf>. Accessed December 14, 2017.

<sup>2</sup> Parks, Trails and Health. Centers for Disease Control and Prevention. <https://www.cdc.gov/healthyplaces/healthtopics/parks.htm>. Accessed December 14, 2017.

<sup>3</sup> Community Health Needs Assessment. Community Commons. <https://assessment.communitycommons.org>. Accessed December 14, 2017.

<sup>4</sup> 2017 Minnesota Statewide Health Assessment. Minnesota Department of Health. <http://www.health.state.mn.us/healthymnpartnership/sha.html>. Accessed May 26, 2018.

Census Tracts with Park Access within 1/2 Mile, Ramsey County, 2013



Source: Ramsey County

## DESCRIPTION

Access to public transportation connects residents to jobs, social networks, health care and healthy food. It reduces traffic-related crashes, increases physical fitness and mental health, and reduces both gasoline consumption and the carbon footprint.<sup>1</sup> Public transportation is especially important for job accessibility in heavily urbanized areas, where traffic and parking can be barriers. Metro Transit offers an integrated network of buses, light rail and commuter trains as well as resources for those who carpool, vanpool, walk or bike in the Twin Cities metro area. Metro Mobility provides public transit services for riders unable to use regular buses due to a disability or health condition. Vanpool and Transit Link also provide services under contract with the Metropolitan Council. In 2016, there were 109 park-and-ride facilities in the metro area used by 18,000-19,000 people in the past five years.<sup>2</sup>

## HOW WE ARE DOING

Over 6 percent of Ramsey County residents utilize public transportation for their commute to work, compared to 3.5 5.1 percent of U.S. residents.<sup>3</sup> There remain several low income neighborhoods where residents have low access to vehicles in Ramsey County where there are very few public transit routes.

### BENCHMARK INDICATOR

Healthy People 2020: Increase trips to work made by mass transit  
U.S. target: 5.5 percent

## DISPARITIES

Transportation infrastructure can highlight disparities. Populations who are nonwhite or have low socioeconomic status (SES) tend to own fewer cars, drive less and take public transportation more.<sup>4</sup> Low SES populations tend to live closer to city centers to access public transportation.

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

Initiatives in Ramsey County and the greater metro area to improve access to (and experience of) public transportation include:

- A series of Arterial Bus Rapid Transit (BRT) projects initiated by Metro Transit in 2015, beginning with the A Line, which provides an important connection between the Green Line in St. Paul and the Blue Line in Minneapolis. A nine-mile line will run between Woodbury and downtown St. Paul, connecting with the Green Line at Union Depot.
- Plans to add 150 shelters and improve an additional 75 by Metro Transit. Improvements focus on areas of concentrated poverty in St. Paul.
- Evaluation of ways to improve transit routes along the Riverview Corridor by the Ramsey County Regional Railroad Authority who works on transit-oriented projects that address the region's needs for mobility, improved transportation affordability, mitigation of traffic congestion and enhanced environmental quality. It also oversees Union Depot in downtown St. Paul. Their additional projects include:  
(continued on back)

## Information to note

- Ramsey County currently meets the Healthy People 2020 target for residents commuting to work using public transportation.
- The Twin Cities metro ranks 12th among 49 other major metropolitan areas in the U.S. for using public transportation to get to work.<sup>5</sup>
- Even though Ramsey County currently meets the Healthy People 2020 target for residents commuting to work using public transportation, there are several low income neighborhoods lacking transit routes.

<sup>1</sup> Public Transportation Benefits. American Public Transportation Association. <http://www.apta.com/mediacenter/ptbenefits/Pages/default.aspx>. Accessed December 13, 2017.

<sup>2</sup> Metro Transit. <https://www.metrotransit.org/about-metro-transit> ; <https://www.metrotransit.org/metro-mobility>. Accessed December 13, 2017.

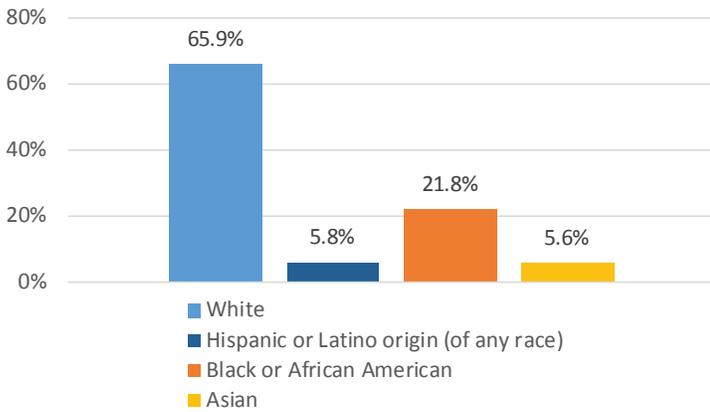
<sup>3</sup> U.S. Census American Community Survey 2012-2016. [https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS\\_16\\_5YR\\_B08101&prodType=table](https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_16_5YR_B08101&prodType=table). Accessed March 13, 2018.

<sup>4</sup> Pratt GC, Vadali ML, Kvale DL, Ellickson KM. Traffic, Air Pollution, Minority and Socio-Economic Status: Addressing Inequities in Exposure and Risk. *Int J Environ Res Public Health*. 2015 May; 12(5): 5355-5372.

<sup>5</sup> Access Across America: UMN ranks accessibility to jobs by transit. <https://twin-cities.umn.edu/news-events/access-across-america-umn-ranks-accessibility-jobs-transit>. Accessed December 13, 2017.

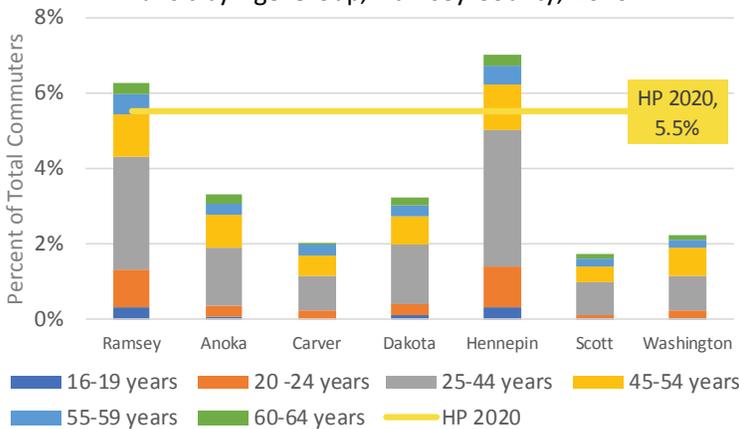
- A BRT route connecting Union Depot to downtown White Bear Lake (Rush Line);
- A BRT route connecting the southeastern suburbs to St. Paul (Red Rock Corridor); and
- A potential second daily train connecting Union Depot to Union Station in Chicago.

Use of Public Transportation to Get to Work by Race/Ethnicity, Ramsey County, 2016



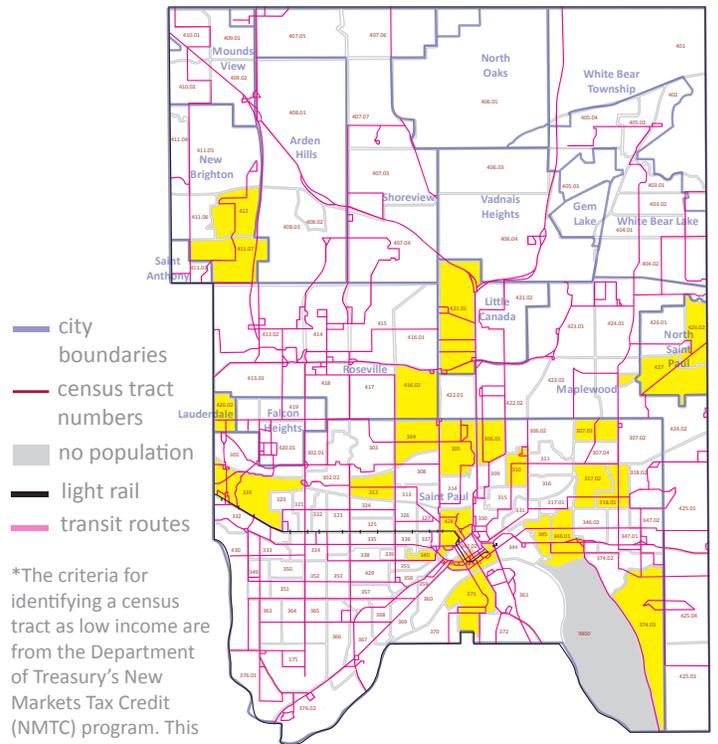
Source: U.S. Census American Community Survey 2016 1-year estimates.<sup>6</sup>

Residents Commuting to Work Using Mass Transit by Age Group, Ramsey County, 2016



Source: U.S. Census American Community Survey 2012-2016.<sup>7</sup>

Low Income\* and Low Vehicle Access by City and Census Tract, Ramsey County, 2015



\*The criteria for identifying a census tract as low income are from the Department of Treasury's New Markets Tax Credit (NMTC) program. This program defines a low-income census tract as any tract where:

- The tract's poverty rate is 20 percent or greater; or
- The tract's median family income is less than or equal to 80 percent of the State-wide median family income; or
- The tract is in a metropolitan area and has a median family income less than or equal to 80 percent of the metropolitan area's median family income.

Vehicle availability is defined in the American Community Survey as the number of passenger cars, vans, or trucks with a capacity of 1-ton or less kept at the home and available for use by household members.

Source: USDA Food Environment Atlas.<sup>8</sup>

<sup>6</sup> U.S. Census American Community Survey 2016 1-year estimates. [https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS\\_16\\_1YR\\_S0802&prodType=table](https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_16_1YR_S0802&prodType=table). Accessed March 14, 2018.

<sup>7</sup> Census American Community Survey 2012-2016. [https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS\\_16\\_5YR\\_B08101&prodType=table](https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_16_5YR_B08101&prodType=table). Accessed March 13, 2018.

<sup>8</sup> USDA Food Environment Atlas. Web site. <https://www.ers.usda.gov/data-products/food-environment-atlas>. Accessed December 28, 2017.

## DESCRIPTION

In 2015, the Surgeon General of the U.S. issued a call to action to promote walking and walkable communities where people of all ages and abilities walk because it is a convenient, fun, safe and healthy choice.<sup>1,2</sup> Elements of walkability include road conditions, affordable housing near businesses, parks and public places to gather and play, and streets that are designed for bicyclists and pedestrians as well as transit.<sup>3</sup> In addition to the many health benefits associated with physical activity, making walking easier can improve safety, increase interaction among residents, improve local economies, and reduce air pollution.<sup>4</sup> On the other hand, the lack of walkable streets can lead to poorer health including high blood pressure, weight gain, chronic illness, depression and anxiety.<sup>5</sup>

## HOW WE ARE DOING

Ramsey County measures walkability by calculating the Pedestrian Level of Service (PLOS) of county streets. PLOS is determined by three factors: the presence or absence of sidewalks, the posted speed limit of the roadway and the surrounding land use context. Streets are then assigned a PLOS rating of good, fair, poor or hostile. Streets with a good rating tend to have lower speed limits, with sidewalks on one or both sides. Currently, fewer than half the streets in Ramsey County have a good PLOS. The percentage of streets rated good in areas of concentrated poverty is higher than the countywide average, mostly due to the higher number of sidewalks in these predominantly urban areas. The percentage of streets rated hostile in areas of concentrated poverty is equal to the countywide average. However, the percentage of hostile streets in areas of extreme concentrated poverty is higher than the countywide average, reflecting the burden that major highways and arterial roadways place on many of these communities. Hostile streets typically lack sidewalks and shoulders, meaning that pedestrians must travel in traffic lanes to reach local destinations. Other hostile streets such as interstate highways prohibit pedestrians and bicycles entirely. These streets carry faster, more dangerous vehicle traffic, and expose pedestrians to high levels of noise and air pollution. They also tend to have fewer homes and other buildings that face the street, which reduces peoples' ability to observe activity on the street and correlates with higher rates of crime.<sup>6</sup>

## DISPARITIES

At the national level, research has shown that people of color and older adults are overrepresented among pedestrian deaths.<sup>7</sup> In U.S. metro areas lower median household income and higher rates of people without health insurance both correlate with a higher risk of being struck and killed by a car while walking.<sup>8</sup> Areas of extreme concentrated poverty in Ramsey County have a higher percentage of streets with a hostile PLOS than the (continued on back)

## Information to note

- Lack of walkable streets can contribute to a sedentary lifestyle and associated negative health impacts.
- In Ramsey County, fewer than half the streets are rated as having a good Pedestrian Level of Service.

<sup>1</sup> Step It Up! The Surgeon General's Call to Action to Promote Walking and Walkable Communities. U.S. Department of Health and Human Services. <https://www.surgeongeneral.gov/library/calls/walking-and-walkable-communities/index.html>. Accessed August 7, 2018.

<sup>2</sup> Ramsey County-wide Pedestrian and Bicycle Plan: Purpose, Vision and Goals. Ramsey County. <https://www.ramseycounty.us/sites/default/files/Projects%20and%20Initiatives/Section%201%20-%20Purpose%20Vision%20and%20Goals%20Web.pdf>. Accessed October 25, 2017.

<sup>3</sup> Walkable Neighborhoods. Walk Score. <https://www.walkscore.com/walkable-neighborhoods.shtml>. Accessed August 15, 2017.

<sup>4</sup> Seymour MW. Walkable Mississippi: Introduction to walking and walkability issues. Mississippi State University Extension. 2017. <http://extension.msstate.edu/sites/default/files/publications/publications/p3110.pdf>. Published July 2017. Accessed August 7, 2018.

<sup>5</sup> National Physical Activity Plan. National Coalition for Promoting Physical Activity. <http://www.ncppa.org/national-physical-activity-plan>. Accessed August 7, 2018.

<sup>6</sup> Active Design Supplement: Promoting Safety. John Hopkins Bloomberg School of Public Health. 2013. [https://www.jhsph.edu/research/centers-and-institutes/johns-hopkins-center-for-injury-research-and-policy/\\_docs/publications-resources/ActiveDesignSupplement.pdf](https://www.jhsph.edu/research/centers-and-institutes/johns-hopkins-center-for-injury-research-and-policy/_docs/publications-resources/ActiveDesignSupplement.pdf). Accessed August 7, 2018.

<sup>7</sup> The best complete streets policies of 2016. Smart Growth America. <https://smartgrowthamerica.org/resources/the-best-complete-streets-policies-of-2016/?download=yes&key=43751417>. Accessed July 19, 2017.

<sup>8</sup> Dangerous by Design 2016. Smart Growth America. 2017. <https://smartgrowthamerica.org/dangerous-by-design/>. Accessed August 24, 2018.

county average. Areas of concentrated poverty in Ramsey County have a higher percentage of streets with a good PLOS than the county average.

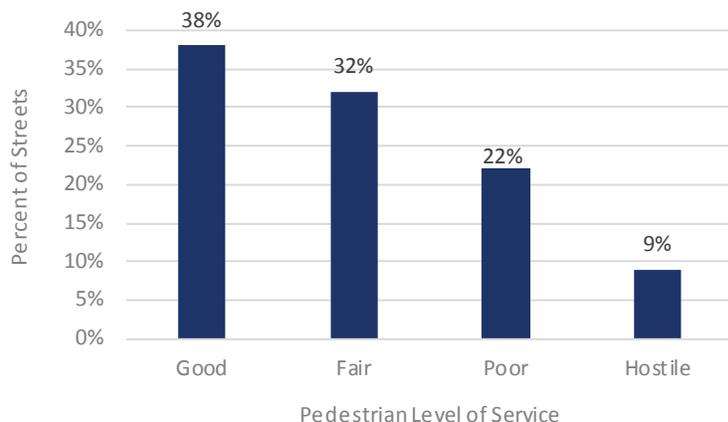
## RISK FACTORS

People in low-income households are nearly twice as likely to walk as people in other income groups, in part because they are less likely to own a car.<sup>9</sup> Some research has shown that socially vulnerable groups such as the elderly, people of color, people living in poverty, and people with lower educational attainment tend to live in neighborhoods with lower walkability.<sup>10</sup>

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

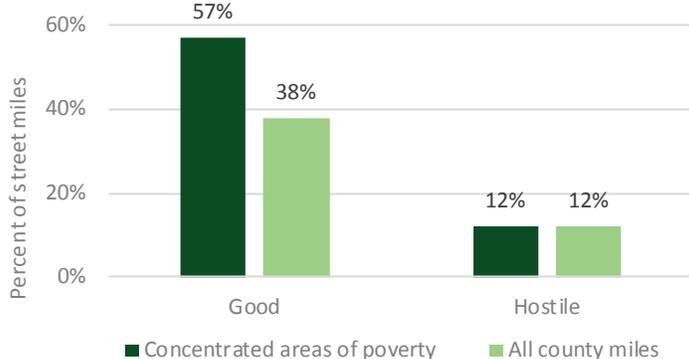
Ramsey County has implemented an All Abilities Transportation Network Policy, which prioritizes transportation system users to ensure the most vulnerable users (pedestrians) are always considered first during transportation planning and implementation. This creates a fundamental system change to encourage more walkable communities and neighborhoods through ongoing and future transportation projects. Additionally, Active Living Ramsey Communities is facilitating implementation of the Ramsey County-wide Pedestrian and Bicycle Plan by coordinating with other governmental units to create quality pedestrian infrastructure such as sidewalks, trails and other pedestrian-friendly facilities. Finally, Saint Paul – Ramsey County Public Health’s Statewide Health Improvement Partnership (SHIP) encourages implementation of Safe Routes to School: a comprehensive framework that uses infrastructure to build safer, walkable areas around schools; and uses education, enforcement, and encouragement to build a culture and environment of safe walking for all.

**Pedestrian Level of Service on Ramsey County Streets, 2016**



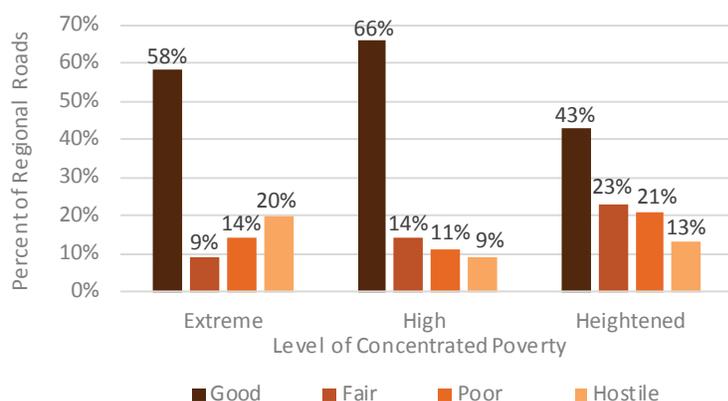
Source: Ramsey County Parks and Recreation Department. 2017.

**Pedestrian Level of Service in Concentrated Areas of Poverty, Ramsey County, 2016**



Source: Ramsey County Parks and Recreation Department.

**Pedestrian Level of Service by Level of Poverty, Ramsey County, 2016**



Source: Ramsey County Parks and Recreation Department.

<sup>9</sup>Murakami E, Young J. Daily Travel by persons with low income. Paper presented at: African American Mobility Symposium; April 3-May 2, 1997; Tampa, FL. <https://nhits.ornl.gov/1995/Doc/LowInc.pdf>. Accessed August 8, 2018.

<sup>10</sup>Bereitschaft B. Equity in neighbourhood walkability? A comparative analysis of three large U.S. cities. The International Journal of Justice and Sustainability. 2017. <http://dx.doi.org/10.1080/13549839.2017.1297390>. Published March 3, 2017. Accessed August 8, 2018.

## DESCRIPTION

Crime and high rates of incarceration impose tremendous costs on society, with lasting negative effects on individuals, families and communities.<sup>1</sup> Rates of crime in the U.S. have been falling steadily, but still constitute a serious economic and social challenge. At the same time, the incarceration rate in the U.S. is so high that policymakers question whether, for nonviolent criminals, the social costs of incarceration exceed the social benefits.<sup>1</sup> Public spending on fighting crime—including the costs of incarceration, policing, and judicial and legal services—as well as private spending by households and businesses is substantial. There are also tremendous costs to the victims of crime, such as medical costs, lost earnings, and an overall loss in quality of life. Crime also stymies economic growth. Crime can induce citizens to migrate; economists estimate that each nonfatal violent crime reduces a city's population by approximately one person, and each homicide reduces a city's population by seventy persons.<sup>1</sup> Elevated rates of crime and incarceration directly work against long-term prosperity and economic growth, marginalizing individuals, devastating affected communities and perpetuating inequality.<sup>1</sup> Exposure to crime can cause feelings of being unsafe, mental distress and reduced quality of life, along with the possible physical effects of being a direct victim.<sup>2</sup>

## HOW WE ARE DOING

Crime rates in Ramsey County have been dropping for years and are near historic lows. In 2017, there was a serious crime rate of 3,414 offenses per 100,000 residents, while in 2000 the rate was 5,267 per 100,000 population. There were 20,790 serious crime offenses in Ramsey County during 2017.<sup>3</sup> When asked about how feelings of being safe from crime within communities, 36.1 percent of Ramsey County residents reported feeling “very safe” and 14.7 percent responded with “somewhat unsafe” or “not at all safe” in 2014.<sup>4</sup>

## DISPARITIES

Low-income individuals are more likely than higher-income individuals to be victims of crime. Most criminal offenders are younger than age 30. Disadvantaged youth engage in riskier criminal behavior.<sup>1</sup> In the U.S. there is nearly a 70 percent chance that an African-American man without a high school diploma will be imprisoned by his mid-30s.<sup>1</sup> In 2017, Minnesotans of color were nearly three times more likely to be charged with a serious crime than their white peers.<sup>3</sup>

## RISK FACTORS

Criminal behavior starts mainly during early adolescence and is overwhelmingly an adolescent/early adult phenomenon.<sup>5</sup> Traditional criminological theories are concerned with biological factors, developmental experiences and/or social forces that create the criminal offender.<sup>6</sup> The occurrence of crime is understood largely as an expression of the offender's acquired deviance, which may be a function of events that occurred many years beforehand.<sup>6</sup> A more recent view is that crime is concentrated around “crime opportunities” and other environmental features that facilitate criminal activity and that given the right circumstances, most people are capable of illegal conduct. Crime occurs when residents feel isolated and anonymous and believe that they have no stake in their neighborhood.<sup>6</sup>

## Information to note

- Serious crime includes homicide, rape, robbery, aggravated assault, burglary, larceny, motor vehicle theft, arson and human trafficking.
- There were 20,790 instances of serious crime in 2017 in Ramsey County, most occurring in Roseville, followed by Maplewood and St. Paul.
- Ramsey County has the highest serious crime rate in Minnesota.

<sup>1</sup>Kearney S, Harris B, Jácome E, Parker L. Ten economic facts about crime and incarceration in the United States. Brookings Institute. 2014. <https://www.brookings.edu/research/ten-economic-facts-about-crime-and-incarceration-in-the-united-states/>. Published May 1, 2014. Accessed July 2018.

<sup>2</sup>Crime and Violence. Healthy People 2020. <https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-health/interventions-resources/crime-and-violence>. Accessed July 2018.

<sup>3</sup>Criminal Justice Data Reporting. Minnesota Department of Public Safety. <https://dps.mn.gov/divisions/bca/bca-divisions/mnjis/Pages/uniform-crime-reports.aspx>. Accessed July 2018.

<sup>4</sup>Metro SHAPE Adult Health Survey 2014. Ramsey County Data Book. [https://www.ramseycounty.us/sites/default/files/Open%20Government/Public%20Health%20Data/ramsey\\_county\\_metro\\_SHAPE\\_2014\\_survey.pdf](https://www.ramseycounty.us/sites/default/files/Open%20Government/Public%20Health%20Data/ramsey_county_metro_SHAPE_2014_survey.pdf). Accessed July 2018.

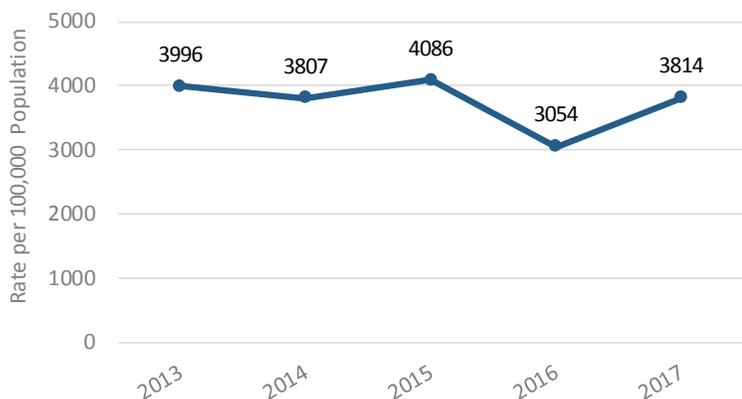
<sup>5</sup>Thornbury P. ed. *Advances in Criminological Theory: Developmental Theories of Crime and Delinquency*. New Brunswick, NJ: Transaction Publishers; 2017.

<sup>6</sup>Wortley R, Townsley M. eds. *Environmental Criminology and Crime Analysis*. 2nd ed. New York, NY: Routledge; 2017.

### WHAT RAMSEY COUNTY GOVERNMENT IS DOING

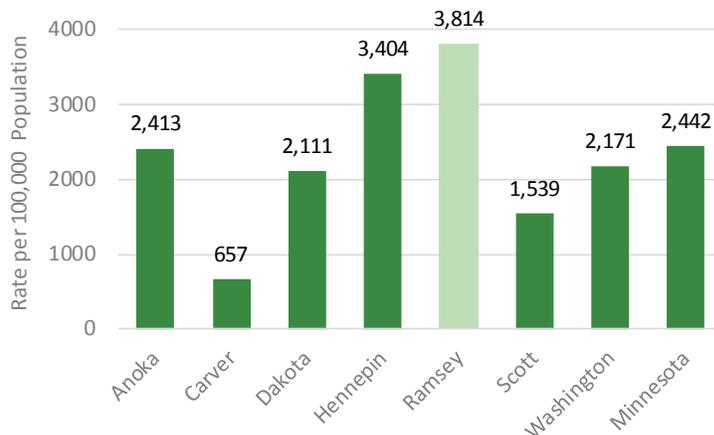
The Ramsey County Attorney’s Office partners with law enforcement, neighborhood non-profits and community leaders, and youth to improve justice in our community. Some of the initiatives that have undertaken to improve public safety and quality of life for our residents are: combatting sex trafficking; participation in the East Metro Crime Prevention Coalition, free gun lock distribution, a GPS Technology Initiative for domestic violence victims, a Safe Summer Initiative in neighborhoods, assistance to veterans in the criminal justice system, participation in the Community Task Force on Safe Schools, and improving prevention and responses to sexual violence victims through the Start by Believing campaign.

Serious Crime\* Rate Over Time, Ramsey County



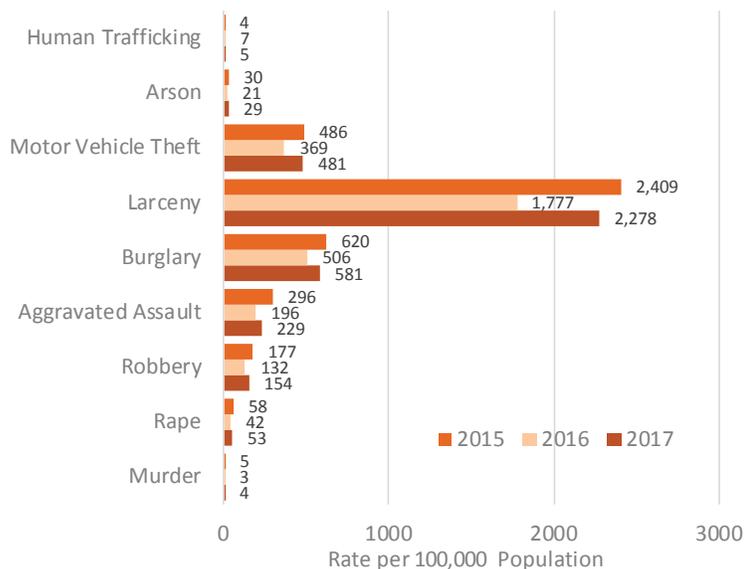
Source: Minnesota Department of Public Safety.<sup>7</sup>

Serious Crime\* Rate by Metro County, 2017



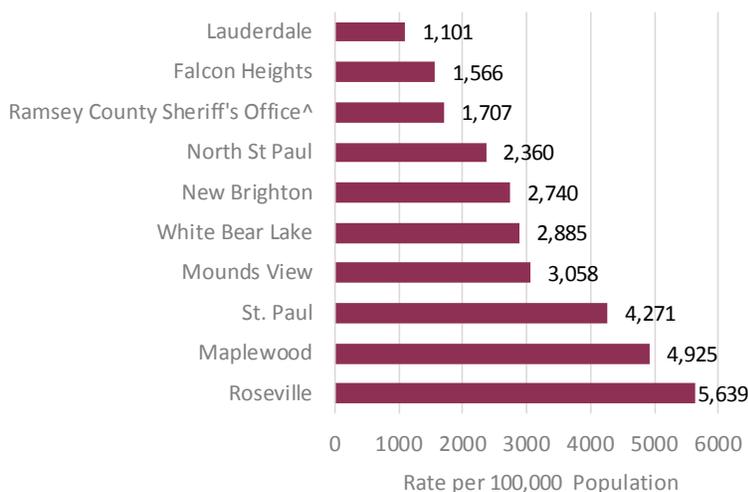
Source: Minnesota Department of Public Safety.<sup>7</sup>

Serious Crime Rate by Type, Ramsey County



Source: Minnesota Department of Public Safety.<sup>7</sup>

Serious Crime\* Rate by City, Ramsey County, 2017



^ The Sheriff's Office provides law enforcement services to Arden Hills, Little Canada, North Oaks, Shoreview, Vadnais Heights and White Bear Township.  
Source: Minnesota Department of Public Safety.<sup>7</sup>

\*Serious crime includes murder, rape, robbery, aggravated assault, burglary, larceny, motor vehicle theft, arson, human trafficking.

<sup>7</sup> Minnesota Department of Public Safety. Bureau of Criminal Apprehension. Criminal Justice Data Reporting. <https://dps.mn.gov/divisions/bca/bca-divisions/mnjis/Pages/uniform-crime-reports.aspx>. Accessed July 2018.

# Crime - Unlawful Conduct Among Youth

## DESCRIPTION

Although the U.S. still leads the industrialized world in the rate at which it locks up young people, the youth confinement rate in the U.S. is rapidly declining. The juvenile justice system is based on the premise that adolescents and adults have different needs and capacities. Adolescents are still developing mentally, physically and emotionally, as they are forming their identities. As a result, juveniles who break the law should be treated differently than adults who do. Most juveniles in U.S. residential placement are there because of delinquency. The other 5 percent have committed status offenses (behaviors that are illegal for underage persons but not for adults, such as running away and truancy) as their most serious offense. For youth under court supervision, reoffending rates remain unacceptably high.<sup>1</sup> Rearrest rates for youth on probation are 50 percent or greater in many states, while two-thirds of incarcerated youth are rearrested within two years of release. Resources invested in community supervision and services have not consistently produced the desired measurable improvements in youth outcomes, particularly for youth of color who continue to experience persistent disparities and worse outcomes compared to their white peers.<sup>2</sup>

In Minnesota juvenile courts have jurisdiction over youth under age 18 who engage in unlawful conduct, with certain exceptions. In contrast to the adult courts, juvenile proceedings are not criminal proceedings designed to determine criminal responsibility and punishment, but rather they are civil proceedings designed to protect the child from the consequences of his or her own conduct, develop individual responsibility for unlawful behavior, rehabilitate him or her, and at the same time promote public safety.<sup>3</sup>

## HOW WE ARE DOING

Between 2013-2017, there was a 16 percent decrease in admissions to Ramsey County's Juvenile Detention Center (JDC), and a 20 percent decrease in the number of individual youth admitted. Most admissions (75 percent) each year were males. Over the past five years, the average time spent at the JDC has been 9-11 days. In 2017, Ramsey County's Boys Totem Town (BTT) facility served 60 boys. Since 2013 there has been a 65 percent decrease in admissions to BTT. In 2017, 841 Ramsey County youth were served by county probation staff, and 55 percent were black. Over the past five years approximately 50 percent of youth in the system were on probation for six months or less.<sup>4</sup>

## DISPARITIES

An assumption made, often erroneously, is that racial disparities exist because youth of color commit more crime than white youth.<sup>5</sup> While data suggest white youth and youth of color may have different rates of offending for some crimes, the levels of disparity observed are too great to be explained by differences in youth offending patterns alone.<sup>6</sup> Furthermore, once youth of color are in the system, research reveals they receive harsher consequences than white youth with similar offenses and criminal histories.<sup>7</sup> Black youth,

## Information to note

- Black youth, ages 10-17, make up 19% of Ramsey County's youth population but accounted for 65% of detention admissions in 2017.
- Since 2013, the number of Ramsey County youth on probation has decreased by 26%.

<sup>1</sup>Sickmund M, Sladky TJ, Kang W, Puzanchera C. Easy Access to the Census of Juveniles in Residential Placement. EZACJRP. <https://www.ojjdp.gov/ojstatbb/ezacjrp/>. Updated June 1, 2017. Accessed July 2018.

<sup>2</sup>Weber J, Umpierre M, Bilchik S. Transforming juvenile justice systems to improve public safety and youth outcomes. Center for Juvenile Justice Reform. 2018. <http://cjjr.georgetown.edu/wp-content/uploads/2018/05/Transforming-Juvenile-Justice-Systems-to-Improve-Public-Safety-and-Youth-Outcomes.pdf>. Published May 2018. Accessed July 2018.

<sup>3</sup>Minn. Stat. § 260B.001, subd. 2. <http://www.house.leg.state.mn.us/hrd/issinfo/cr-juvst.aspx?src=33>. Accessed July 2018.

<sup>4</sup>Ramsey County Community Corrections 2016 Fact Sheets. Ramsey County. <https://www.ramseycounty.us/sites/default/files/Departments/2016%20Community%20Corrections%20Fact%20Sheets.pdf>. Published April 2017. Accessed July 2018.

<sup>5</sup>Center for Juvenile Justice Reform. Racial and ethnic disparity and disproportionality in child welfare and juvenile justice: A compendium. Center for Juvenile Justice Reform. 2009. [http://cjjr.georgetown.edu/wp-content/uploads/2015/03/RacialandEthnicDisparity\\_January2009.pdf](http://cjjr.georgetown.edu/wp-content/uploads/2015/03/RacialandEthnicDisparity_January2009.pdf). Published January 2009. Accessed July 2018.

<sup>6</sup>Huizinga D, Thornberry T, Knight K, Lovegrove P. Disproportionate minority contact in the juvenile justice system: A study of differential minority arrests/referral to court in three cities. 2007. <https://www.ncjrs.gov/pdffiles1/ojjdp/grants/219743.pdf>. Accessed July 2018.

<sup>7</sup>And justice for some: Differential treatment of youth of color in the justice system. National Council on Crime and Delinquency. 2007. <https://www.nccdglobal.org/publications/and-justice-for-some-differential-treatment-of-youth-of-color-in-the-justice-system>. Published January 2007. Accessed July 2018.

# Crime - Unlawful Conduct Among Youth

ages 10-17, make up 19 percent of Ramsey County's youth population but accounted for 65 percent of detention admissions in 2017.<sup>8</sup> Racial disparities continue to exist and while the number of youth of color admitted to detention has declined, the percentage of youth of color continues to represent a significant majority of detention admissions.

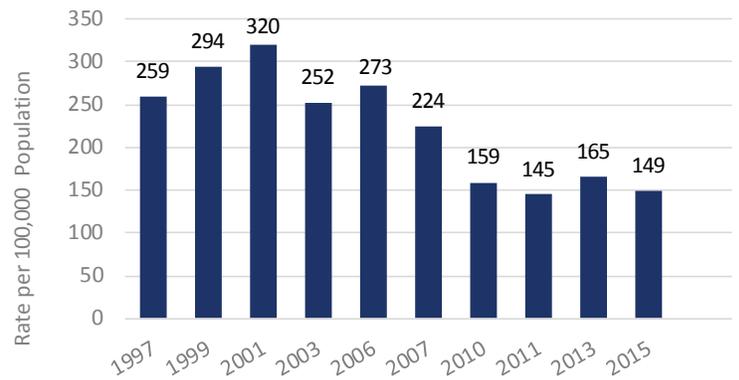
## RISK FACTORS

Youths' likelihood of engaging in delinquency and other problem behaviors are typically organized into the following domains: Individual (e.g., biological and psychological dispositions, attitudes, values, knowledge, skills, problem behaviors); Peer (e.g., norms, activities, attachment); Family (e.g., function, management, bonding, abuse/violence); School (e.g., bonding, climate, policy, performance); and Community (e.g., bonding, norms, resources, poverty level, crime).<sup>9</sup>

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

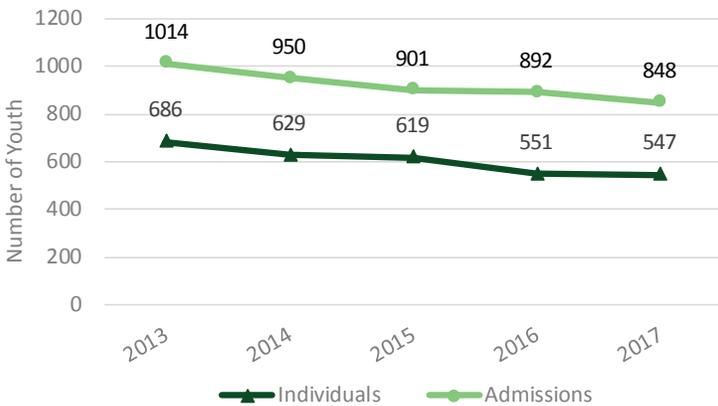
In 2014, Ramsey County began reform work with the Annie E. Casey Foundation called the Juvenile Detention Alternatives Initiative (JDAI), to reduce reliance on out-of-home placement for court-involved youth. Out-of-home placements have a deeply troubling track record including high rates of recidivism, exorbitant costs, reduction in health and safety, and poor outcomes in youth development. By intentionally applying JDAI's approach through data-driven decision making, stakeholder collaboration, increasing community-based alternatives to placement and a laser focus on reducing racial and ethnic disparities in our juvenile justice system, Ramsey County can substantially reduce reliance on incarceration and out-of-home placement without sacrificing public safety.

Youth Residing in Juvenile Detention, Correctional, and/or Residential Facilities, Minnesota



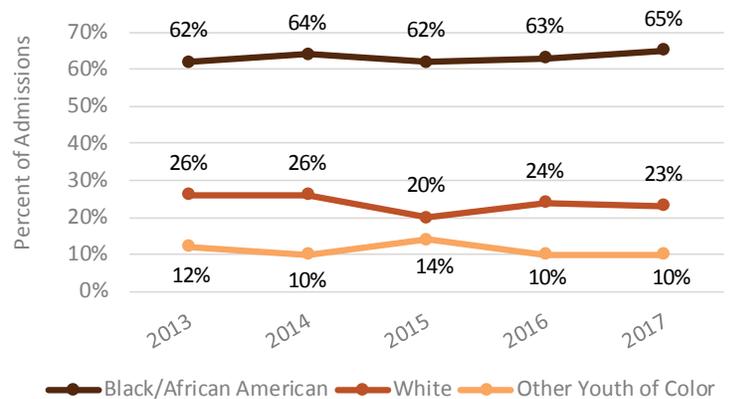
Source: Office of Juvenile Justice and Delinquency Prevention.<sup>10</sup>

Admissions to the Ramsey County Juvenile Detention Center



Source: Ramsey County Community Corrections.

Admissions to the Juvenile Detention Center, Ramsey County



Source: Ramsey County Community Corrections.

<sup>8</sup> Ramsey County Community Corrections 2016 Fact Sheets. Ramsey County. <https://www.ramseycounty.us/sites/default/files/Departments/2016%20Community%20Corrections%20Fact%20Sheets.pdf>. Published April 2017. Accessed July 2018.

<sup>9</sup> Risk Factors for Delinquency. Office of Juvenile Justice and Delinquency Prevention. 2015. <https://www.ojjdp.gov/mpg/litreviews/Risk%20Factors.pdf>. Updated December 2015. Accessed July 2018.

<sup>10</sup> Source: Sickmund M, Sladky TJ, Kang W, Puzanchera C. (2017) "Easy Access to the Census of Juveniles in Residential Placement." <https://www.ojjdp.gov/ojstatbb/ezacjrp/>. Accessed July 2018.

## DESCRIPTION

Domestic violence (also called intimate partner violence, domestic abuse or relationship abuse) is a pattern of behaviors used by one partner to maintain power and control over another partner in an intimate relationship.<sup>1</sup> Domestic violence includes behaviors that physically harm, arouse fear, prevent a partner from doing what they wish or force them to behave in ways they do not want. It includes the use of physical and sexual violence, threats and intimidation, emotional abuse and economic deprivation. Many of these different forms of domestic violence/abuse can be occurring at any one time within the same intimate relationship. Domestic violence does not look the same in every relationship because every relationship is different. But one thing most abusive relationships have in common is that the abusive partner does many different things to have more power and control over their partner. In Minnesota in 2017, there were 19 women killed by a former or current intimate partner, with five additional lives taken due to being either a bystander or family member that was killed alongside the victim.<sup>2</sup> Convicting someone of domestic violence can be the difference between them getting treatment or not and whether or not they can get a gun.

## HOW WE ARE DOING

Annually, over 5,700 battered women and their children receive direct services from Saint Paul and Ramsey County Intervention, a community organization founded in 1985 to assist victims of domestic violence. Additionally, 9,000 more call for support, information and referrals on the 24-hour crisis line.<sup>3</sup> In 2017, there were 740 cases for orders for protection for domestic abuse in the Ramsey County court system and an additional 408 for harassment. In 2016, 64 percent of domestic abuse cases presented by law enforcement were charged in court<sup>4</sup>, and of those 87 percent of the offenders were found guilty.<sup>5</sup> In 2016, a rate of 60.8 visits per 100,000 Ramsey County residents were treated at an emergency department or hospital for battering and child maltreatment.<sup>6</sup> Among Ramsey County 8th, 9th and 11th grade students, 7.4 percent reported violent behavior between parents or other adults within their home.<sup>7</sup>

## DISPARITIES

Ramsey County American Indian students and students of multiple races reported the highest percentage of violence between parents or adults at home in 2016.<sup>5</sup>

## RISK FACTORS

Domestic violence does not discriminate. Anyone of any race, age, sexual orientation, religion or gender can be a victim – or perpetrator – of domestic violence. It can happen to people who are married, living together or who are dating. It affects people of all socioeconomic backgrounds and education levels.<sup>1</sup>

The most common indicators of potential perpetrators are low socio-economic status, underemployment, prior criminal history, abused or witness of abuse as a child, substance abuse, mental disorders and/or an attitude that violence is acceptable.<sup>7</sup> Warning signs of (continued on back)

## Information to note

- In 2017, there were 740 cases for orders for protection for domestic abuse brought to court in Ramsey County and an additional 408 for harassment.
- There were 14 women killed by a former or current intimate partner in the metro area in 2017.

<sup>1</sup> What is Domestic Violence? The National Domestic Violence Hotline. <http://www.thehotline.org/is-this-abuse/abuse-defined/>. Accessed August 2018.

<sup>2</sup> 2017 Femicide Report. Minnesota Coalition for Battered Women. [http://docs.wixstatic.com/ugd/f4bdb8\\_c42fbb6692914f35a647c28344278da1.pdf](http://docs.wixstatic.com/ugd/f4bdb8_c42fbb6692914f35a647c28344278da1.pdf). Accessed August 2018.

<sup>3</sup> The St. Paul & Ramsey County Domestic Abuse Intervention Project. <http://stpaulintervention.org/mission.html#q>. Accessed August 2018.

<sup>4</sup> Domestic Abuse Charging Rate- Performance Measurement. Ramsey County Attorney's Office. <https://openperformance.ramseycounty.us/stories/s/mcvv-b78z>. Accessed August 2018.

<sup>5</sup> Domestic Abuse Conviction Rate. Ramsey County Attorney's Office. <https://openperformance.ramseycounty.us/stat/goals/yd5x-b3bg/p2gb-equf/4j88-d4hg>. Accessed August 2018.

<sup>6</sup> Hospital Treated Injury. Minnesota Department of Health. MIDAS. <http://www.health.state.mn.us/injury/midas/injury/index.cfm>. Accessed August 2018.

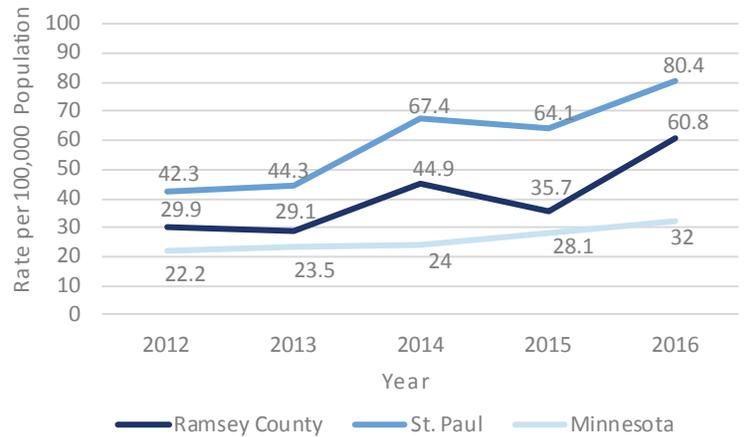
<sup>7</sup> Minnesota Student Survey. Minnesota Department of Education. <http://w20.education.state.mn.us/MDEAnalytics/DataTopic.jsp?TOPICID=242>. Accessed August 2018.

abuse becoming lethal may include; the victim trying to leave the abuser, presence of threats to kill the victim, abuser has access to firearms, and the abuser has a history of violence.<sup>8</sup>

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

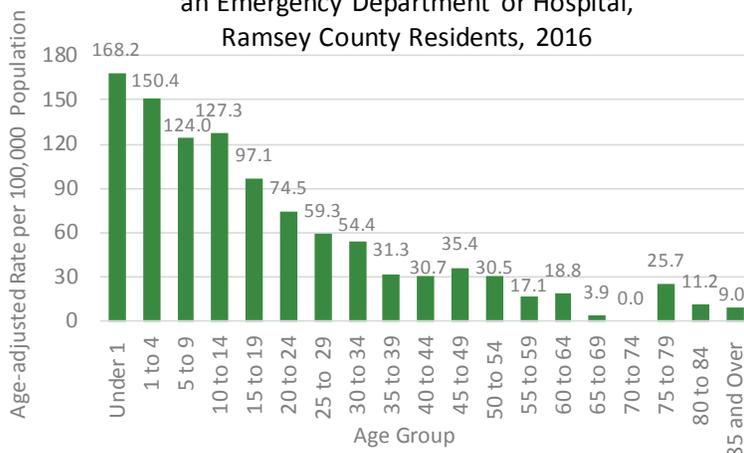
Ramsey County takes domestic violence seriously and aggressively prosecutes domestic assaults to hold the offender accountable and protect victims from future violence, and to send a message to our community that domestic abuse is a crime and will not be tolerated. Minnesota law allows for qualified domestic violence-related offense charges to be enhanced if the offender has past conviction(s) within 10 years of the new offense. The Ramsey County Attorney's Office measures the outcomes of domestic abuse related cases to see if there are more convictions and fewer dismissals or lesser charges to see if offenders are being held accountable for their actions. Ramsey County is proud to be a member of the Partnership for Domestic Abuse Service (PDAS), a collaborative of 18 county government and nonprofit partners whose mission is to "identify, create, and sustain innovative responses that assure a future free of domestic violence." PDAS operates Bridges to Safety, the domestic abuse service center that serves victims at the Ramsey County Courthouse/Saint Paul City Hall in downtown Saint Paul.

**Battering/Maltreatment Injury Visits Treated in an Emergency Department or Hospital**



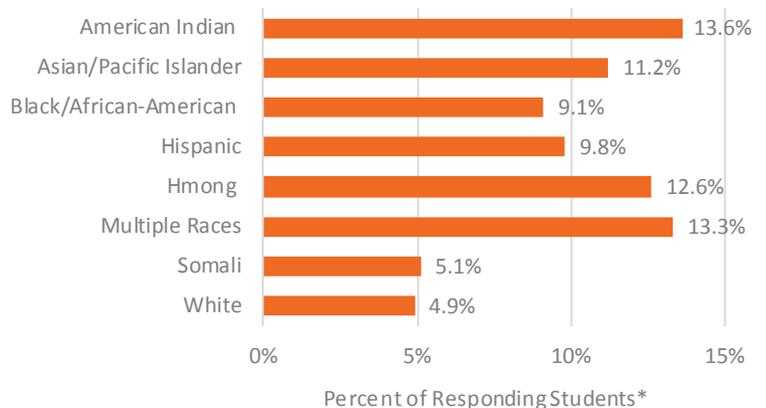
Source: Minnesota Department of Health. MIDAS.<sup>9</sup>

**Battering/Maltreatment Injury Visits Treated in an Emergency Department or Hospital, Ramsey County Residents, 2016**



Source: Minnesota Department of Health. MIDAS.<sup>9</sup>

**Students Reporting Violence Between Parents or Other Adults at Home, Ramsey County, 2016**



\* Students could identify as more than one race/ethnicity  
Source: Minnesota Department of Education. Minnesota Student Survey.<sup>10</sup>

<sup>8</sup> Predictive Indicators of Domestic Violence. Domestic Shelters. <https://www.domesticshelters.org/domestic-violence-articles-information/predictive-indicators-of-domestic-violence#WuoYRpch02w>. Published April 14, 2015. Accessed August 2018.

<sup>9</sup> Source: Minnesota Department of Health. MIDAS. <http://www.health.state.mn.us/injury/midas/injury/index.cfm>. Accessed August 2018.

<sup>10</sup> Source: Minnesota Student Survey. Minnesota Department of Education. <http://w20.education.state.mn.us/MDEAnalytics/DataTopic.jsp?TOPICID=242>. Accessed August 2018.

## DESCRIPTION

Human trafficking believed to be the third-largest criminal activity in the world, is a form of human slavery. It involves both U.S. citizens and foreigners alike, and has no demographic restrictions.<sup>1</sup> Here in this country, people are being bought, sold, and smuggled like modern-day slaves, often beaten, starved, and forced to work as prostitutes or to take jobs as migrant, domestic, restaurant, or factory workers with little or no pay. Over the past decade, human trafficking has been identified as a heinous crime which exploits the most vulnerable in society.<sup>1</sup> Sex trafficking is defined in federal law as a commercial sex act induced by force, fraud, or coercion, or in which the person induced to perform such an act has not attained 18 years of age.<sup>2</sup> The FBI collects trafficking offense data on both Human Trafficking-Commercial Sex Acts and Human Trafficking-Involuntary Servitude through the Uniform Crime Reporting program from local law enforcement.<sup>3</sup>

## HOW WE ARE DOING

There were 25 arrests for trafficking in Ramsey County during 2017, down from 42 arrests in 2016. The crime rate for trafficking rose steadily from 2014 (the first year of data collection) to 2016 and then dropped in 2017 to 5 per 100,000 population.

## DISPARITIES

Collecting statistics on sex trafficking is particularly difficult because of the hidden nature of trafficking activities. Although the majority of labor trafficking victims are undocumented, the majority of sex trafficking victims in the U.S. are U.S. citizens.<sup>4</sup> In a 2014 Urban Institute study that looked at the economics of sex trafficking, of the traffickers interviewed the majority overwhelmingly believed that trafficking white women would make them more money but trafficking black women would land them less jail time if caught. Most of the traffickers interviewed had trafficked women and girls of different races since having a variety of products to sell was good for business.<sup>5</sup>

## RISK FACTORS

Practitioners report that traffickers often target individuals who have previous experiences of psychological trauma, histories of family violence or child sex abuse, drug dependency, homelessness, and social isolation. Individuals with limited economic resources—minors and individuals with limited educational opportunities, work opportunities or family support—are also at a heightened risk of trafficking.<sup>6</sup>

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

Over the past several years Ramsey County has taken a leading role in Minnesota – and even nationwide – in combating a previously hidden but major problem: the sexual exploitation, including the sex trafficking, of children. County leaders helped catalyze a new state law, the Safe Harbor for Sexually Exploited Youth Act of 2011, which ensures that young people who are sexually exploited/trafficked are treated as victims, not perpetrators. Saint Paul – Ramsey County Public Health’s SOS program has taken the lead on reviewing (continued on next page)

## Information to note

- In 2017 there were 25 arrests for trafficking in Ramsey County, down from 42 arrests in 2016
- The majority of the traffickers interviewed overwhelmingly believed that trafficking white women would make them more money, but trafficking black women would land them less jail time if caught.

<sup>1</sup> What We Investigate: Human Trafficking/Involuntary Servitude. FBI. <https://www.fbi.gov/investigate/civil-rights/human-trafficking>. Accessed July 2018.

<sup>2</sup> Chapter 78-Trafficking Victims Protection. United States Code. <http://uscode.house.gov/view.xhtml?path=/prelim@title22/chapter78&edition=prelim>. Accessed July 2018.

<sup>3</sup> Human Trafficking in the Uniform Crime Reporting Program. FBI. <https://ucr.fbi.gov/human-trafficking>. Accessed July 2018.

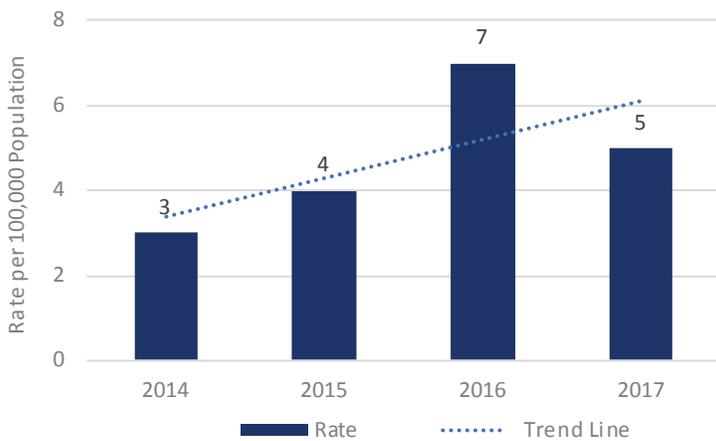
<sup>4</sup> Human Trafficking. The National Center for Victims of Crime. [http://victimsofcrime.org/docs/ncvrw2013/2013ncvrw\\_stats\\_humantrafficking.pdf?sfvrsn=0](http://victimsofcrime.org/docs/ncvrw2013/2013ncvrw_stats_humantrafficking.pdf?sfvrsn=0). Accessed July 2018.

<sup>5</sup> Dank M, Khan B, Downey PM, et al. Estimating the size and structure of the underground commercial sex economy in eight major US cities. The Urban Institute. 2014. [https://www.urban.org/research/publication/estimating-size-and-structure-underground-commercial-sex-economy-eight-major-us-cities/view/full\\_report](https://www.urban.org/research/publication/estimating-size-and-structure-underground-commercial-sex-economy-eight-major-us-cities/view/full_report). Published March 12, 2014. Accessed July 2018.

<sup>6</sup> Carpenter A, Gates J. The nature and extent of gang involvement in sex trafficking in San Diego county. U.S. Department of Justice. 2016. <https://www.ncjrs.gov/pdffiles1/nij/grants/249857.pdf>. Accessed July 2018.

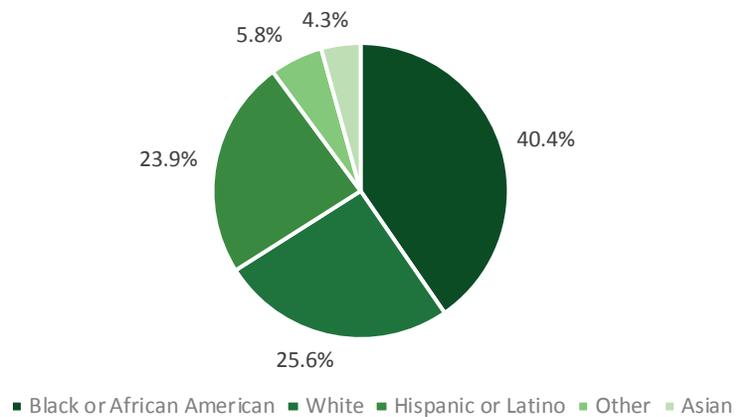
the practices of medical facilities that encounter sexually exploited/trafficked victims. The Ramsey County Sheriff's Office convened a countywide law enforcement team to collaborate on sex trafficking cases, which often cross jurisdictional lines. In 2017 a Ramsey County Sexually Exploited Youth Leadership team was formed to develop a county-wide protocol that encompasses a victim-centered, comprehensive, systemic response so the community can come together to effectively combat the sexual exploitation/trafficking of children. This group is currently working on developing a protocol by tailoring the statewide model protocol to the specific resources and needs in Ramsey County.

Trafficking Arrests, Ramsey County, 2014 - 2017



Source: Minnesota Department of Public Safety Uniform Crime Reports.<sup>7</sup>

Sex Trafficking Victims by Race/Ethnicity, United States, 2011



Source: Office to Monitor and Combat Trafficking in Persons.<sup>8</sup>

<sup>7</sup> Minnesota Department of Public Safety. Bureau of Criminal Apprehension. Uniform Crime Reports. <https://dps.mn.gov/divisions/bca/bca-divisions/mnjis/Pages/uniform-crime-reports.aspx>. Accessed July 2018.

<sup>8</sup> Office to Monitor and Combat Trafficking in Persons, Trafficking in Persons Report 2012, (Washington, DC: U.S. Department of State, 2012), 361, accessed October 15, 2012, <http://www.state.gov/documents/organization/192598.pdf>.

## DESCRIPTION

The American criminal justice system holds almost 2.3 million people in 1,719 state prisons, 102 federal prisons, 1,852 juvenile correctional facilities, 3,163 local jails, and 80 Indian Country jails as well as in military prisons, immigration detention facilities, civil commitment centers, state psychiatric hospitals, and prisons in the U.S. territories.<sup>1</sup> Since about the year 2000 the total prison population increased by 14% in the U.S. A majority (56%) of people under the control of the American criminal justice system are on probation. Despite receiving little public attention, probation is a significant component of each state's criminal justice system.<sup>2</sup> People who are in jail end up facing consequences beyond incarceration itself, including lost wages, worsened physical and mental health, and possible loss of custody of children, a job, or a place to live.<sup>3</sup>

## HOW WE ARE DOING

In 2017, the Ramsey County Correctional Facility (a 556-bed facility, housing both males and females who have received a sentence from the court for up to one year) served 4,188 inmates. In addition to housing Ramsey County offenders, Dakota County contracts with Ramsey County to board its female offenders. Since 2013, the number of admissions to RCCF has decreased by 8 percent. Most admissions in 2017 (42 percent) were people age 25-34. Black men made up 45 percent of the 2,018 male admissions and black females made up 29 percent of the 405 Ramsey County female admissions. Over the past five years, the percentage of female admissions has increased (39 percent in 2013 versus 48 percent in 2017). There were 11,677 adults on active supervision (probation or supervised release) served by Ramsey County Community Corrections, a decrease of 21 percent since 2013. Over the past five years, adults have been on probation for a longer duration. In 2013, 33 percent of adults removed from probation were open more than two years. In 2017, 43 percent were open for more than two years.

## DISPARITIES

Race is a defining characteristic of the criminal justice system. People of color are dramatically overrepresented in prisons and jails. These racial disparities are particularly stark for blacks, who make up 40% of the incarcerated population in the U.S. despite representing only 13% of U.S. residents.<sup>4</sup> Recent research suggests that much of the black-white disparity in the imposition of prison sentences is attributable to the manner in which dark-skinned blacks are treated. The study found that dark-skinned blacks were especially likely to receive unconditional prison sentences even when legal factors were controlled. "The most novel finding [was that] overall, whites with features that are more typically associated with blacks – darker skin tone and more Afrocentric facial features – are treated more punitively."<sup>4</sup>

## RISK FACTORS

Poverty, in particular, perpetuates the cycle of incarceration, while incarceration itself leads to greater poverty.<sup>5</sup> Estimates report that nearly 40% of all crimes are directly attributable to poverty and the vast majority (80%) of incarcerated individuals are low-income.

## Information to note

- During 2017, 45% of male admissions to the Ramsey County Correctional Facility were African-American men.
- Since 2013, the number of adults on probation or supervised release has decreased by 21%.

<sup>1</sup>Wagner P, Sawyer W. Mass incarceration: the whole pie 2018. Prison Policy Initiative. 2018. <https://www.prisonpolicy.org/reports/pie2018.html>. Published March 14, 2018. Accessed July 2018.

<sup>2</sup>Rabury B, Wagner P. Correctional control: incarceration and supervision by state. Prison Policy Initiative. 2016. <https://www.prisonpolicy.org/reports/50statepie.html>. Published June 1, 2016. Accessed July 2018.

<sup>3</sup>Subramanian R, Delaney R, Roberts S, Fishman N, McGarry P. Incarceration's front door: The misuse of jails in America. Vera Institute. 2015. <https://www.vera.org/publications/incarcerations-front-door-the-misuse-of-jails-in-america>. Published February 2015. Updated July 29, 2015. Accessed July 2018.

<sup>4</sup>King R, Johnson B. A punishing look: skin tone and afrocentric features in the halls of justice. *American Journal of Sociology*. 2016;122(1):90-124. doi:10.1086/686941.

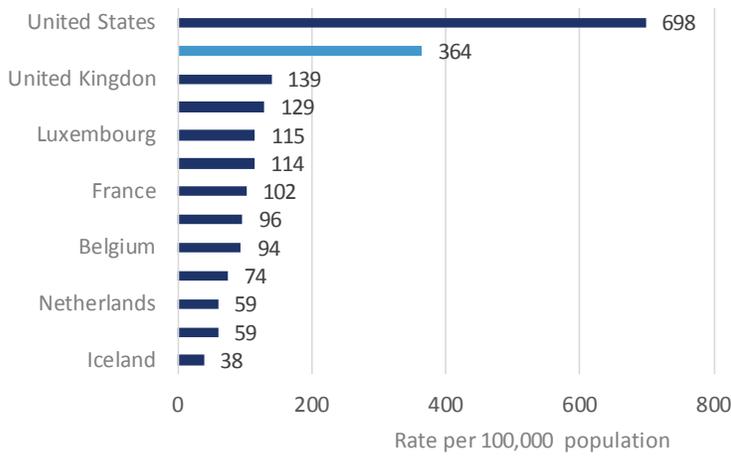
<sup>5</sup>deVuono-powell S, Schweidler C, Walters A, Zohrabi A. Who pays? The true cost of incarceration on families. Ella Baker Center, Forward Together, Research Action Design. 2015. <http://whopaysreport.org/executive-summary/>. Published September 2015. Accessed July 2018.

# Crime - Incarceration and Legal Supervision of Adults

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

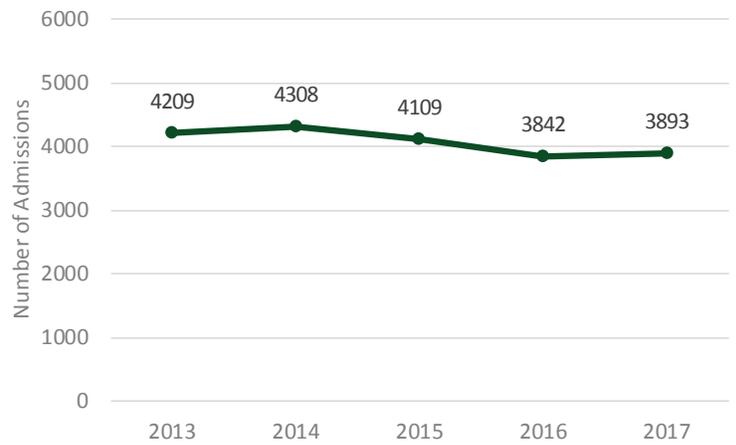
Ramsey County Community Corrections is exploring ways to increase the success of probationers in the community and reduce the use of confinement which disproportionately impacts communities of color in Ramsey County. Community Corrections has partnered with the Robina Institute at the University of Minnesota Law School and the Second Judicial District to review and reform probation revocation rates and processes in order to increase rates of successful completion of probation and reduce probation revocations. In addition, recognizing the intersection of race, poverty and criminal justice, Ramsey County Community Corrections has reduced the probation supervision fee from \$300 to \$150 for clients monitored at lower intensity at the Probation Reporting Center.

### Incarceration Rates Comparing Minnesota and Founding NATO Countries



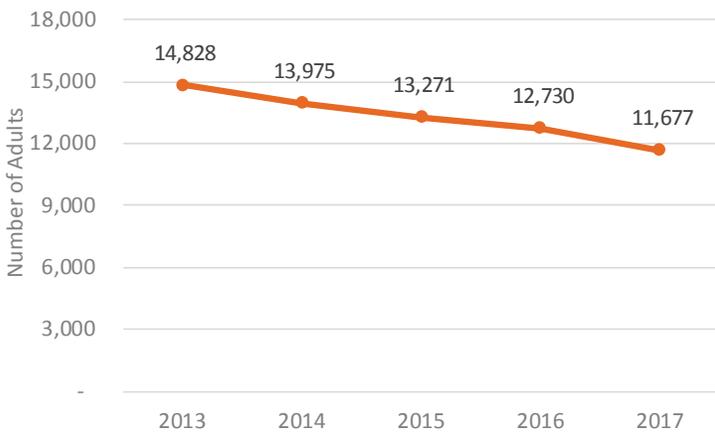
Source: Prison Policy Initiative.<sup>6</sup>

### Admissions to the Ramsey County Correctional Facility Over Time



Source: Ramsey County Community Corrections.

### Adults on Probation or Supervised Release Over Time, Ramsey County



Source: Ramsey County Community Corrections

<sup>6</sup> Wagner P, Sawyer W. States of Incarceration: The Global Context 2018. Prison Policy Initiative. <https://www.prisonpolicy.org/global/2018.html>. Accessed July 2018.

## DESCRIPTION

Poor air quality can affect lung and heart health. Scientific studies have shown that exposure to poor air quality can lead to a sore throat, persistent cough, burning eyes, wheezing, shortness of breath or chest pain. Elevated pollution levels can also trigger asthma attacks, hospital admissions and emergency room visits, heart attacks, and premature death.<sup>1</sup>

The Air Quality Index, or AQI, was developed by the U.S. Environmental Protection Agency (EPA) to provide a simple, uniform way to report daily air quality conditions. Minnesota AQI numbers are determined by hourly measurements of five pollutants: fine particles (PM2.5), ground-level ozone (O3), sulfur dioxide (SO2), nitrogen dioxide (NO2), and carbon monoxide (CO). The pollutant with the highest AQI value determines the overall AQI for that hour; fine particles and ozone are the primary pollutants causing air alerts.<sup>2</sup>

The Minnesota Pollution Control Agency (MPCA) uses hourly air pollution monitoring results and daily air quality forecasts to determine whether air pollution concentrations have reached air quality alert levels. An air quality alert is issued when measured or forecasted air quality conditions are expected to result in an AQI of 101 or higher, meaning that adverse health effects can be expected for populations that are sensitive to air pollution.<sup>3</sup>

## HOW WE ARE DOING

The number of good AQI days has been increasing over time while the number of moderate and higher days has been decreasing. The number of “unhealthy for sensitive groups” and “unhealthy” days is more variable, as it is driven by differences in weather conditions that affect air quality. Ramsey County in 2016 had two total “unhealthy” days. In the Twin Cities for 2015, there were seven alert days for AQI.

The number of AQI days in each category varies by region of the state. Typically, areas in the northern half of the state have the highest number of good days. The Twin Cities routinely has the fewest number of good days, due in part to the density of air pollution sources such as cars, trucks, homes, and industry in the metropolitan area.<sup>4</sup>

The number of air alert days per year across Minnesota has generally been declining over time (the slight increase noted for 2015 was primarily due to increased wildfire activity). On most days, air quality across Minnesota is healthy to breathe, but on some days each year the air can reach unhealthy levels.<sup>5</sup>

## BENCHMARK INDICATOR

Healthy People 2020: Reduce the number of days the Air Quality Index (AQI) exceeds 100.

U.S. Target: 10% improvement.

## DISPARITIES

Air pollution disproportionately impacts the health of some communities. Areas with higher concentrations of people living in poverty and people of color tend to experience higher levels of air pollution than those in predominantly white and higher-income areas, and are

## Information to note

- Overall, the number of good air quality days in Ramsey County is increasing.
- The Twin Cities routinely has the fewest number of good air quality days, compared to other regions of the state.
- An air quality alert is issued when the AQI exceeds 100.

<sup>1</sup>About air quality data. Health effects associated with poor air quality. Minnesota Pollution Control Agency. <https://www.pca.state.mn.us/air/about-air-quality-data>. Accessed January 16, 2018.

<sup>2</sup>About air quality data. AQI monitor locations. Minnesota Pollution Control Agency. <https://www.pca.state.mn.us/air/current-condition-details>. Accessed January 16, 2018.

<sup>3</sup>About air quality data. Issuing Air Quality Alerts. Minnesota Pollution Control Agency. <https://www.pca.state.mn.us/air/about-air-quality-data>. Accessed January 16, 2018.

<sup>4</sup>Annual AQI summary reports. Minnesota Pollution Control Agency. <https://www.pca.state.mn.us/air/annual-aqi-summary-reports>. Accessed January 16, 2018.

<sup>5</sup>Air Quality Index: facts and figures. Minnesota Department of Health. [https://apps.health.state.mn.us/mndata/air\\_aqi](https://apps.health.state.mn.us/mndata/air_aqi). Accessed January 16, 2018.

more vulnerable to air pollution-related health impacts, largely due to underlying health inequities. In addition, there have historically been more pollution sources, including busy roadways, located in lower-income neighborhoods and communities of color.<sup>6</sup>

## RISK FACTORS

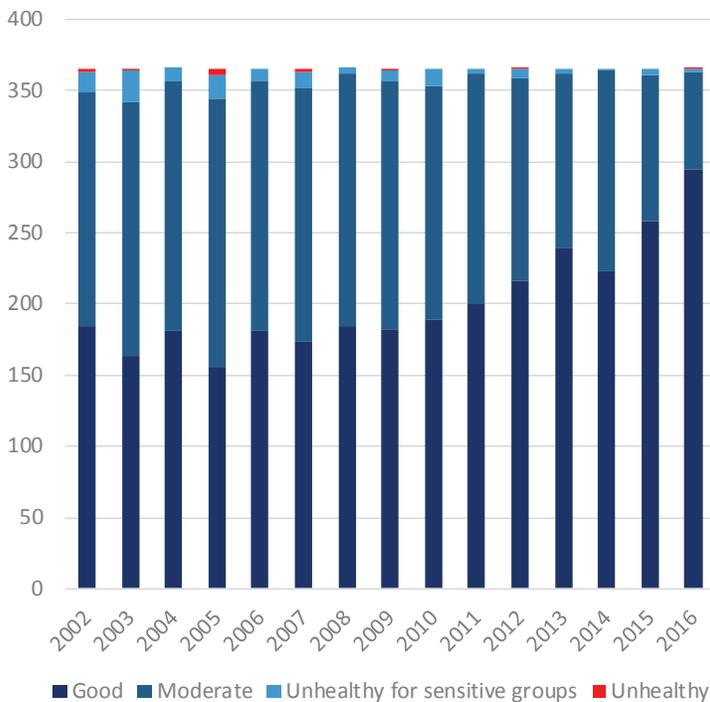
Those especially sensitive to air pollution include: individuals with preexisting lung or heart disease, the elderly, children, and participants in activities that require heavy or extended exertion outdoors.

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

Ramsey County shares air quality alerts with the public through social media, including guidance on actions individuals can take to reduce exposure to unhealthy air. Through its website, Ramsey County promotes the resources produced by “Be Air Aware,” a joint project of the Minnesota Department of Health and the Minnesota Pollution Control Agency that provides information about the connection between air pollution and associated health effects. More work needs to be done to understand the interaction between air pollution and health inequities, and to address the disparities they produce.

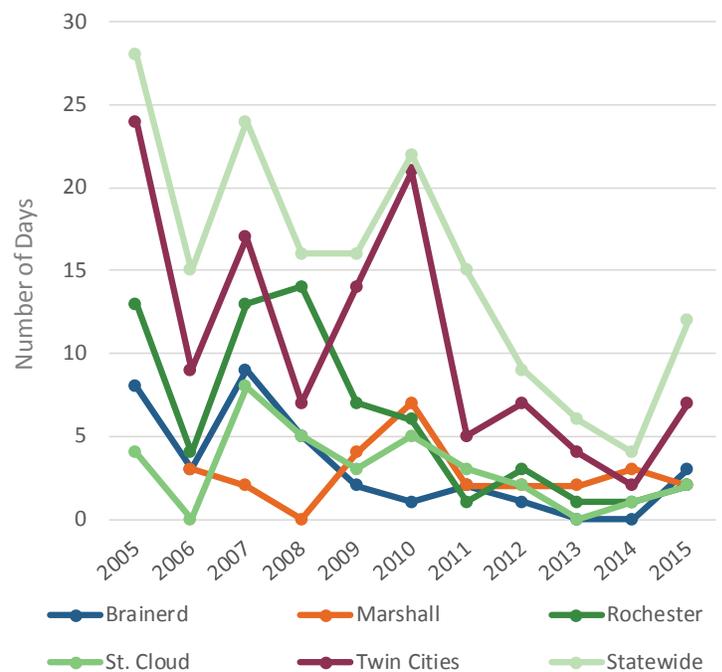
Saint Paul - Ramsey County Public Health engages in this work in partnership with the Minnesota Pollution Control Agency, the Minnesota Department of Health, and others.

Annual Air Quality Index (AQI) Days, Twin Cities



Source: Minnesota Pollution Control Agency.<sup>7</sup>

Air Alert Days by Select Regions Over Time, Minnesota



Source: Minnesota Pollution Control Agency.<sup>8</sup>

<sup>6</sup> The air we breathe: The state of Minnesota’s air quality 2017. Minnesota Pollution Control Agency. <https://www.pca.state.mn.us/sites/default/files/Iraq-1sy17.pdf>. Accessed January 16, 2018.

<sup>7</sup> Minnesota Pollution Control Agency. <https://www.pca.state.mn.us/air/annual-aqi-summary-reports>. Accessed January 16, 2018.

<sup>8</sup> Minnesota Pollution Control Agency. [https://apps.health.state.mn.us/mndata/air\\_aqi](https://apps.health.state.mn.us/mndata/air_aqi). Accessed January 16, 2018.

# Small Particulate Matter

## DESCRIPTION

Small particles in outdoor air (also known as PM<sub>2.5</sub>) and ozone are the primary causes of poor air quality in Minnesota. PM<sub>2.5</sub>, a mixture of small particles and liquid droplets smaller than 2.5 microns in diameter (less than 1/30 the width of a human hair), is released when coal, gasoline, diesel fuels, wood and other fuels are burned. It is also created by chemical reactions between other pollutants in the air.<sup>1</sup> Being exposed to any kind of particulate matter may cause heart problems and decreased lung function, worsened asthma symptoms, adverse birth outcomes, breathing problems, decreased lung growth in children, lung cancer and early death.<sup>2</sup>

## HOW WE ARE DOING

Overall, the number of “good” air quality days in Ramsey County has increased, while the number of “moderate” and unhealthy days has decreased. Ramsey County has not seen an “unhealthy” day (55.5-150.4µg/m<sup>3</sup>) since 2005. The number of unhealthy days is somewhat variable, as it is driven by year-to-year differences in weather conditions that increase air pollution, such as temperature, humidity and wind. Further, increases in fine particle pollution can be caused by unhealthy air being blown into Minnesota from other states.<sup>3</sup>

Between 2006 and 2016, the federal standard for PM<sub>2.5</sub> has been exceeded once. Based on particulate matter, the air quality in Ramsey County has improved in recent years. In Saint Paul, fewer than 1 percent of all days, on average, are unhealthy for fine particle pollution.

## BENCHMARK INDICATOR

U.S. Environmental Protection Agency:<sup>3</sup>

1) Reduce 24-hour small particles (PM<sub>2.5</sub>) in outdoor air.

U.S. Target: 35 µg/m<sup>3</sup>

2) Reduce annual small particles (PM<sub>2.5</sub>) in outdoor air.

U.S. Target: 12 µg/m<sup>3</sup>

## DISPARITIES

Some communities may be more at risk for heart and lung problems related to air pollution. Examples include: high rates of poverty, high numbers of people without health insurance, high obesity and diabetes prevalence, high rates of smoking, higher amounts of car and truck exhaust due to greater population density, and proximity to factory emissions and other sources of exposure.<sup>2</sup>

## RISK FACTORS

Those especially sensitive to air pollution include: individuals with pre-existing lung or heart disease, the elderly, children, and participants in activities that require heavy or extended exertion. These risk factors are associated with more heart and lung problems, hospital visits, and deaths in areas with high amounts of air pollution.<sup>4</sup>

## WHAT RAMSEY COUNTY IS DOING

Through its website, Ramsey County shares alerts with the public when fine particles are expected to reach unhealthy levels. In partnership with “Be Air Aware,” it also shares advice for staying healthy during periods of poor air quality, such as avoiding prolonged outdoor physical activity.

## Information to note

- The burning of coal, gasoline, diesel fuels, wood and other fuels creates pollution particles small enough to get deep into the lungs and the bloodstream.
- The air quality in Ramsey County has been improving in recent years.

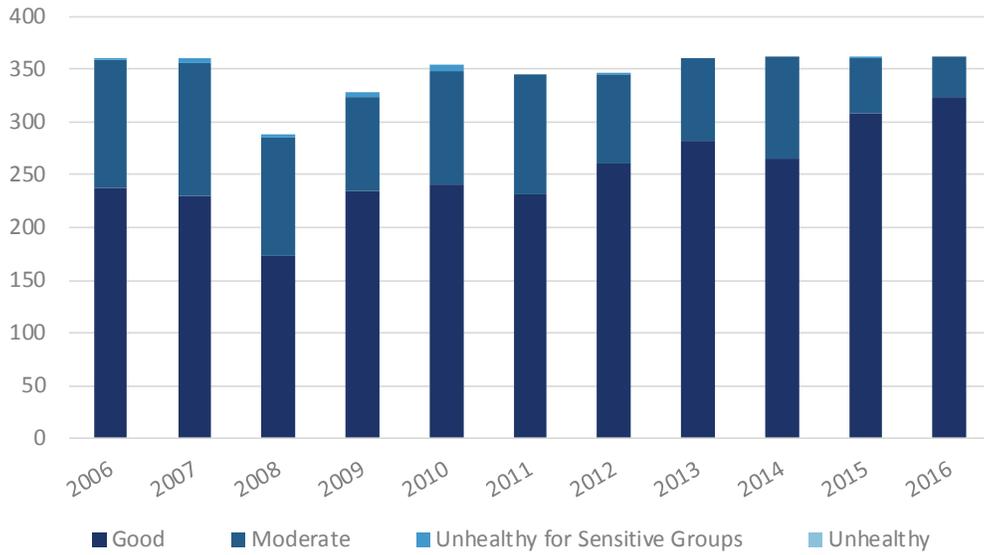
<sup>1</sup>Air Quality Index: facts and figures. Minnesota Department of Health. <https://apps.health.state.mn.us/mndata/air>. Accessed November 29, 2017.

<sup>2</sup>Health Impacts of Fine Particles in Air. Centers for Disease Control and Prevention. <https://ephtracking.cdc.gov/showAirHIA.action>. Accessed November 29, 2017.

<sup>3</sup>Fine particle pollution. Minnesota Pollution Control Agency. <https://www.pca.state.mn.us/sites/default/files/aq8-25.pdf>. Published June 2013. Accessed November 29, 2017.

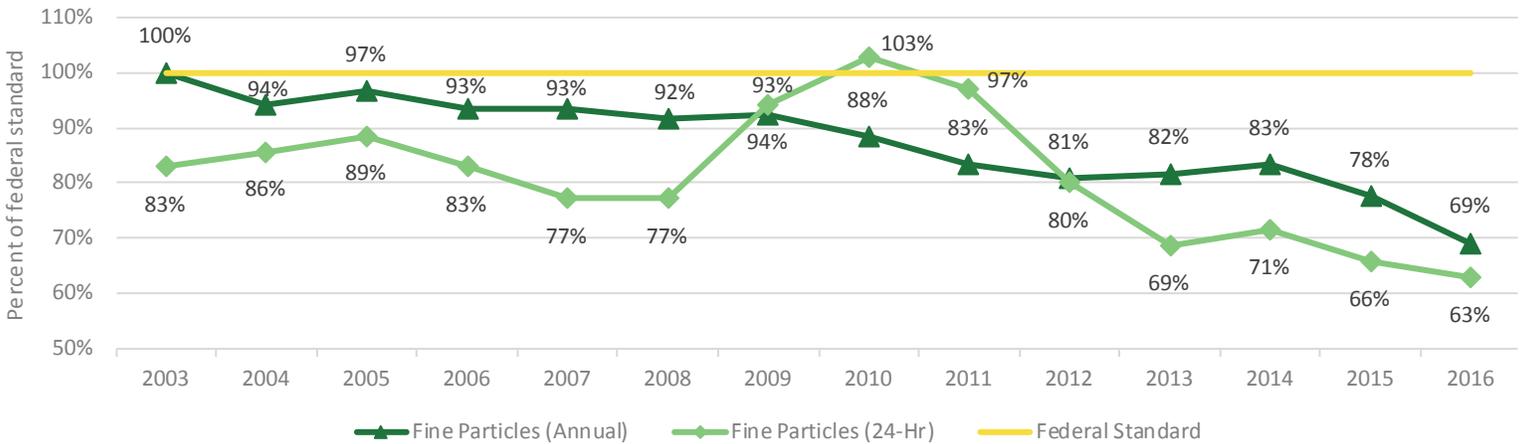
<sup>4</sup>About the Air Quality data: Health effects associated with poor air. Minnesota Pollution Control Agency. <https://www.pca.state.mn.us/air/about-air-quality-data>. Accessed January 16, 2018.

## Fine Particle Matter, Ramsey County



Source: Minnesota Pollution Control Agency

## Fine Particulate Matter Percent of the National Ambient Air Quality Standard, Ramsey County



Source: Minnesota Pollution Control Agency

# Ground - level Ozone

## DESCRIPTION

Ozone and small particles in outdoor air (also known as PM<sub>2.5</sub>) are primary causes of poor air quality in Minnesota. Ozone, unlike the other pollutants, is not emitted directly into the air by any one source. Ground-level ozone is a secondary pollutant, exists in the atmosphere close to earth. It is not the same as the “ozone layer” in the earth’s outer atmosphere (the stratosphere), where ozone helps to absorb ultraviolet radiation that would otherwise be harmful to organisms on the earth’s surface.<sup>1</sup>

Sources of pollutants that form ozone include gasoline and diesel vehicles, construction equipment, lawn and garden equipment, paints and solvents, refueling stations, factories, electric utilities and other activities that result in the burning of fossil fuels.<sup>2</sup> Ozone can irritate the eyes, nose and throat; aggravate asthma, bronchitis and allergies; decrease lung function; and possibly lead to death.<sup>3</sup> The Minnesota Pollution Control Agency (MPCA) monitors ozone pollution at locations across Minnesota from March through October each year.

## HOW WE ARE DOING

The number of “good” days for ozone concentration in the Twin Cities area has increased over the past five years, while the number of “moderate” and unhealthy days has decreased. Because of the role of heat and sunlight play in the formation of ground-level ozone, it is generally not a concern in Minnesota during the winter months. On hot, sunny summer days, however, ozone concentrations can rise to unhealthy levels. In the past 10 years, about 1 percent of all days were unhealthy for ozone in the metro area.

While Ramsey County and Minnesota are currently in compliance with the federal standard (70 ppb), ozone is a pollutant of concern because levels have been relatively close to the national standard for the past six years. Due to the significant role that weather conditions play in daily ozone concentrations, predicting future levels and trends is difficult.

## BENCHMARK INDICATOR

U.S. Environmental Protection Agency: Reduce ground-level ozone.

U.S. Target: 70 parts per billion (ppb).

## DISPARITIES

Greater air pollution impacts from all sources, and especially transportation sources, have been found in nonwhite and low socio-economic status populations than in white and higher socio-economic status populations.<sup>4</sup>

## RISK FACTORS

While ozone can affect anyone, people most likely to experience negative health effects include: people with asthma or other lung diseases, older adults, people of all ages who exercise or work hard outside, babies and children.<sup>5</sup> Exposure to high levels of ground-level ozone can increase the risk of premature death in individuals already suffering from heart or lung disease.

(continue on next page)

## Information to note

- The number of “good” days for ozone concentration in the Twin Cities has increased in the past five years.
- On hot, sunny summer days, ozone concentrations can rise to unhealthy levels.
- Emissions from vehicles, factories, electric utilities and other activities that burn fossil fuels are top contributors to ground-level ozone.

<sup>1</sup> Ozone. Minnesota Pollution Control Agency. <https://www.pca.state.mn.us/air/ozone>. Accessed January 23, 2018.

<sup>2</sup> Ozone pollution. United States. Environmental Protection Agency. [https://19january2017snapshot.epa.gov/ozone-pollution\\_.html](https://19january2017snapshot.epa.gov/ozone-pollution_.html). Accessed January 23, 2018.

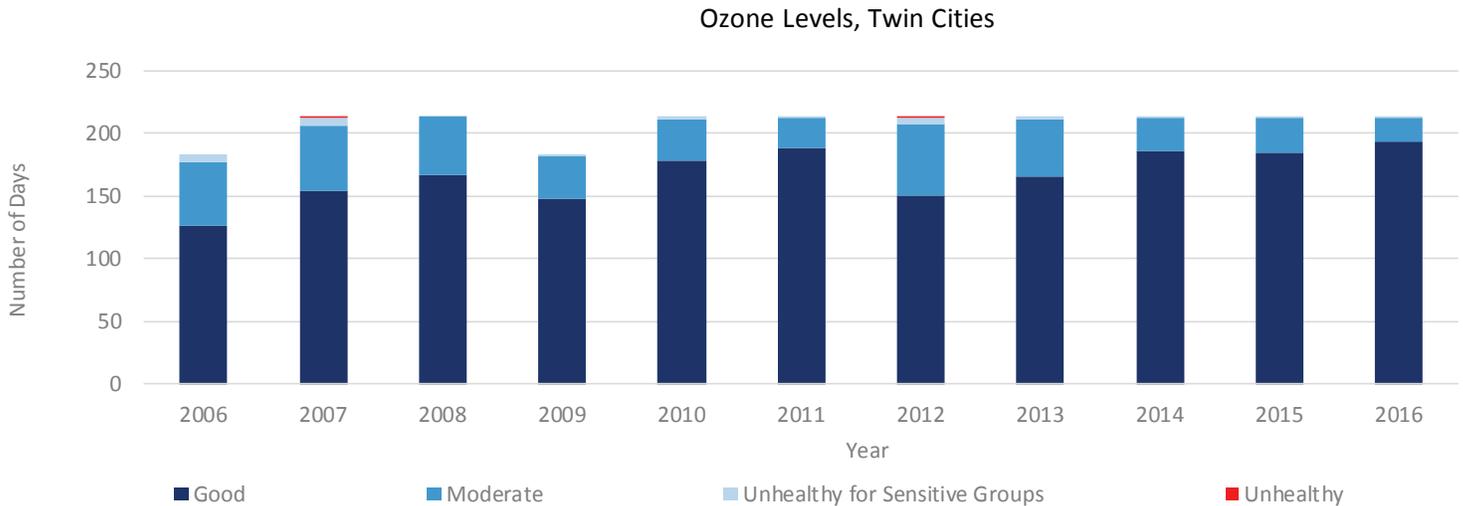
<sup>3</sup> Air Quality. Ground-level ozone. Minnesota Department of Health. <http://www.health.state.mn.us/divs/climatechange/air.html>. Accessed January 23, 2018.

<sup>4</sup> Pratt GC, Vadali ML, Kvale DK, Ellickson KM. Traffic, air pollution, minority and socio-economic status: addressing inequities in exposure and risk. *Int. J. Environ. Res. Public Health*. 2015;12(5):5355-5372. <http://www.mdpi.com/1660-4601/12/5/5355/htm>. Published May 19, 2015. Accessed January 28, 2018.

<sup>5</sup> Ozone and your health. Centers for Disease Control and Prevention. <https://www.cdc.gov/air/ozone.html>. Accessed January 23, 2018.

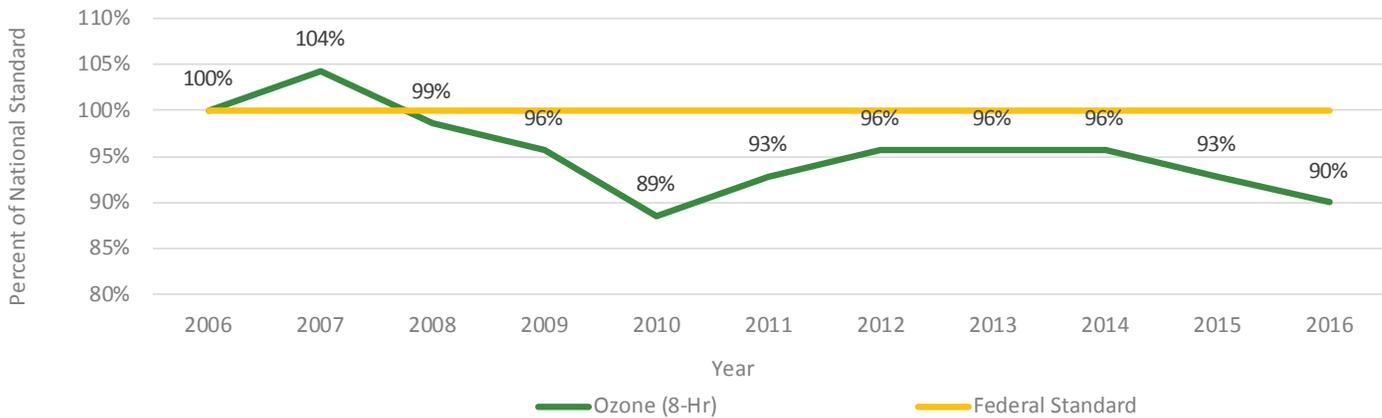
## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

Ramsey County alerts the public through its website when ground-level ozone levels are expected to reach unhealthy levels. The website also includes advice for staying healthy during periods of poor air quality by partnering with “Be Air Aware.” Saint Paul – Ramsey County Public Health’s “Solid Waste Management Master Plan” and “Energy Management and Stewardship Plan” describe the commitment to reducing greenhouse gas emissions (including ozone) and encouraging the use of renewable energy.



Source: Minnesota Pollution Control Agency.<sup>6</sup>

### Ramsey County Air Quality as a Percent of the National Ambient Air Quality Standard



Source: Minnesota Pollution Control Agency.<sup>6</sup>

<sup>6</sup>Source: Cassie McMahon (Environmental Research Scientist), Air Assessment Section of the Environmental Analysis and Outcomes Division, Minnesota Pollution Control Agency.

# Greenhouse Gas

## DESCRIPTION

Greenhouse gases (GHGs) are gases that warm the atmosphere and surface of the planet, leading to changes in the Earth's climate. The conventional GHGs are carbon dioxide (CO<sub>2</sub>), nitrous oxide (N<sub>2</sub>O), methane (CH<sub>4</sub>), sulfur hexafluoride (SF<sub>6</sub>), and two classes of compounds known as hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs). Most GHG emissions are CO<sub>2</sub>, but the other GHGs have very strong warming effects. The primary source of greenhouse gases is the burning of fossil fuels used to produce energy and power motor vehicles. Animal and crop agriculture, landfills and the use of air conditioning also contribute to GHG emissions.<sup>1</sup>

Greenhouse gases play an important role in the earth's climate by trapping heat in the atmosphere. They are necessary to a degree, but excessive amounts of these gases can cause changes in temperature, precipitation, and wind patterns that are disruptive to our ecosystems. These climate changes threaten the survival of some plant and animal species and can also have negative impacts on human health through increased pollution, increased prevalence of disease, and the occurrence of significant weather events such as drought, extreme temperatures, flooding, high winds, global warming and severe storms.<sup>2</sup>

## HOW WE ARE DOING

In 2007, the Minnesota Legislature passed the Next Generation Energy Act, which set goals for renewable energy use, energy conservation and greenhouse gas emissions. These include: 15 percent reduction in GHG emissions by 2015, 30 percent reduction by 2025, and 80 percent reduction by 2050, compared to 2005 emissions. It is unlikely that these future goals will be achieved.

While greenhouse gas emissions from activities throughout the state from 2005 to 2014 decreased slightly (about 4 percent overall), and significant emissions reductions have been seen in some specific areas (especially in electricity generation where emissions decreased 17 percent from 2005 to 2014, due to reduced coal use), emissions have increased in other areas.<sup>3</sup> Transportation GHG emissions are 25 percent of the state's total GHG emissions; while newer vehicles are more efficient and more biofuels are available and replacing fossil fuels, consumers have been choosing to replace smaller cars with larger vehicles. The resulting emissions increase from these vehicles offsets other reductions. GHG emissions from the industrial sector increased since 2005, mostly due to the increasing use of low-cost natural gas.<sup>3</sup>

Mitigation efforts have prevented the increase in emissions that would have otherwise occurred without these efforts. However, without significant additional changes, Minnesota will not achieve the second Next Generation Energy Act goal — a 30 percent reduction in GHG emissions by 2025.

## BENCHMARK INDICATOR

State Statute sets goals for reducing GHG emissions in Minnesota:

- 15% below the 2005 level by 2015
- 30% below the 2005 level by 2025
- 80% below the 2005 level by 2050

## Information to note

- The primary source of greenhouse gases is the burning of fossil fuels used to produce energy and power motor vehicles.
- The Minnesota Legislature set goals for reducing GHG emissions 15% below 2005 levels by 2015, 30% by 2025 and 80% by 2050.
- Since 2008, Ramsey County has reduced energy use in its facilities by 20%.

<sup>1</sup> Climate Change Science: Causes of Climate Change. United States Environmental Protection Agency.

[https://19january2017snapshot.epa.gov/climate-change-science/causes-climate-change\\_.html](https://19january2017snapshot.epa.gov/climate-change-science/causes-climate-change_.html) Accessed December 16, 2017.

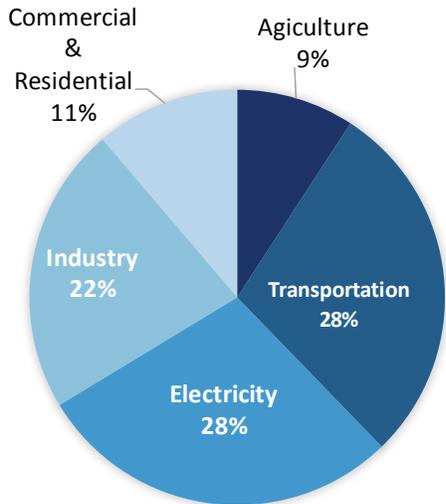
<sup>2</sup> Greenhouse gas emissions. Minnesota Compass. <http://www.mncompass.org/environment/greenhouse-gas-emissions#1-418-g>. Accessed December 16, 2017.

<sup>3</sup> Greenhouse gas emissions in Minnesota. Minnesota Pollution Control Agency. <https://www.pca.state.mn.us/air/greenhouse-gas-emissions-minnesota-0>. Accessed December 16, 2017.

WHAT RAMSEY COUNTY GOVERNMENT IS DOING

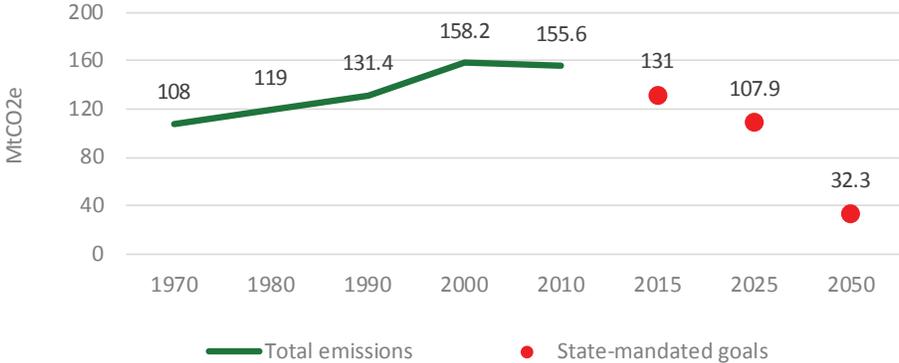
Ramsey County adopted goals for energy use reduction that more closely align with Minnesota’s GHG emission reduction goals (i.e., reduce carbon emissions across county operations 30 percent by 2025 and 80 percent by 2050, compared to 2008 data). Since 2008, the county has reduced energy use in its facilities by 20 percent. Due to data gaps, it cannot be determined if the county’s fleet has reduced emissions over this time. Other areas of county programs and operations contribute to GHG emissions but have not been tracked. It is anticipated that this data will be collected as it becomes available (for example, fleet operations were centralized in 2016 and a new data tracking system for liquid fuels has been implemented).

Total U.S. Greenhouse Gas Emissions by Economic Sector, 2016



Source: U.S. Environmental Protection Agency.<sup>4</sup>

Total Greenhouse Gas Emissions, Minnesota, 1970-2025



Source: Minnesota Compass.<sup>5</sup>

<sup>4</sup> Source: U.S. Environmental Protection Agency <https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions>

<sup>5</sup> Source: Minnesota Compass <http://www.mncompass.org>

# Carbon Monoxide Poisoning

## DESCRIPTION

Carbon monoxide (CO) is a colorless, odorless gas produced from gas furnaces, stoves, water heaters, portable generators and other gasoline or diesel engines. Inhaling large quantities of CO can cause carbon monoxide poisoning resulting in illness (including headache, dizziness, upset stomach, vomiting, chest pain and confusion) and death. Carbon monoxide poisoning is entirely preventable by installing and maintaining carbon monoxide detectors in residential housing and properly venting and maintaining appliances and motor vehicles.<sup>1</sup> As of May 1, 2017, a Minnesota law states that all motorboats with an enclosed accommodation area must be equipped with a marine CO detector. Gas powered boats with enclosed occupancy areas must display three CO warning stickers.<sup>2</sup> State law also requires CO alarms in all single and multi-family Minnesota residences, within ten feet of each room used for sleeping.

## HOW WE ARE DOING

Between 2011 and 2015, there were 94 visits to emergency departments and 8 deaths due to CO poisoning among Ramsey County residents (down from 185 visits to emergency departments and 10 deaths in the previous 5-year span). The number and rate of CO deaths are likely related to the severity of winter. During cold winters heating devices are used more often, increasing the risk of CO poisoning. Overall, Ramsey County had a lower rate of carbon monoxide poisonings in the years 2011-2015 than did the state of Minnesota. The rate of CO poisoning ED visits is lowest among females aged 65+ and highest among adults between age 15 and age 34, and males overall.<sup>3</sup>

## DISPARITIES

Limited research suggests that Hispanic and black populations may be at greater risk for CO poisoning than white populations.<sup>4</sup>

## RISK FACTORS

Everyone is potentially at risk for CO poisoning. Infants, the elderly, people with chronic heart disease, anemia, or breathing problems (such as asthma or emphysema) are more likely to get sick from exposure to CO.<sup>5</sup> Those living in homes with an older or malfunctioning heating system are at increased risk for carbon monoxide poisoning. Homes with fuel-burning appliances or attached garages are more likely to have CO problems.<sup>6</sup>

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

Saint Paul- Ramsey County Public Health partners with the MN Department of Health and the MN Department of Public Safety to provide the public with winter safety information, including how to protect one's self and family from carbon monoxide poisoning. Through its internal policy on motorized equipment idling policy, Ramsey County instructs its employees to reduce idle time and ensure adequate ventilation of fuel exhaust from all vehicles and mobile motorized equipment used for county operations.

## Information to note

- Between 2011 and 2015, the number of emergency department visits went down approximately 50% compared to the previous 5-year span, and the number of deaths was reduced by 20%.
- Carbon monoxide poisoning is entirely preventable.

<sup>1</sup> Carbon monoxide poisoning. Centers for Disease Control and Prevention. <https://www.cdc.gov/co/>. Accessed November 8, 2017.

<sup>2</sup> Sophia's law – carbon monoxide law for boaters. Minnesota Department of Natural Resources. <http://www.dnr.state.mn.us/safety/boatwater/sophias-law.html>. Accessed November 8, 2017.

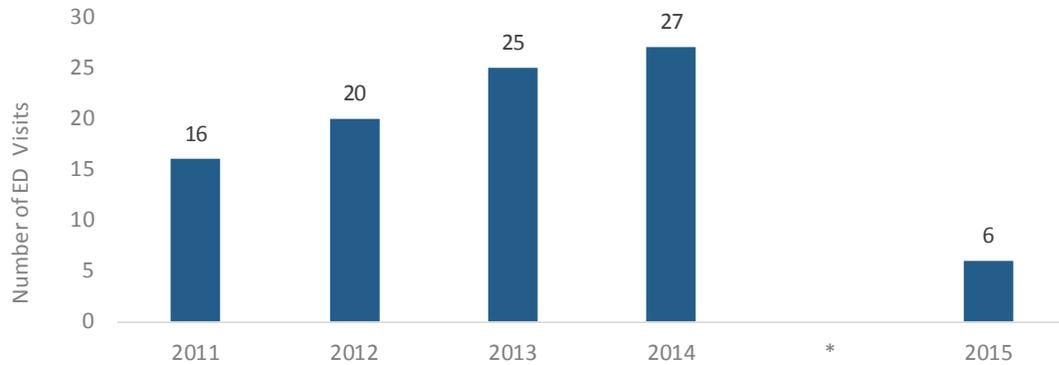
<sup>3</sup> CO poisoning ED visits: facts and figures. Minnesota Department of Health. [https://apps.health.state.mn.us/mndata/carbon\\_monoxide\\_ed](https://apps.health.state.mn.us/mndata/carbon_monoxide_ed). Accessed November 8, 2017.

<sup>4</sup> California Environmental Tracking System. [http://cehtp.org/faq/co/carbon\\_monoxide\\_poisoning\\_who\\_is\\_at\\_risk#\\_faq\\_4](http://cehtp.org/faq/co/carbon_monoxide_poisoning_who_is_at_risk#_faq_4). Accessed June 29, 2018.

<sup>5</sup> What is carbon monoxide? Centers for Disease Control and Prevention. <https://www.cdc.gov/co/faqs.htm>. Accessed November 8, 2017.

<sup>6</sup> Carbon monoxide sources in the home. Minnesota Department of Health. <http://www.health.state.mn.us/divs/eh/indoorair/co/index.html>. Accessed November 8, 2017.

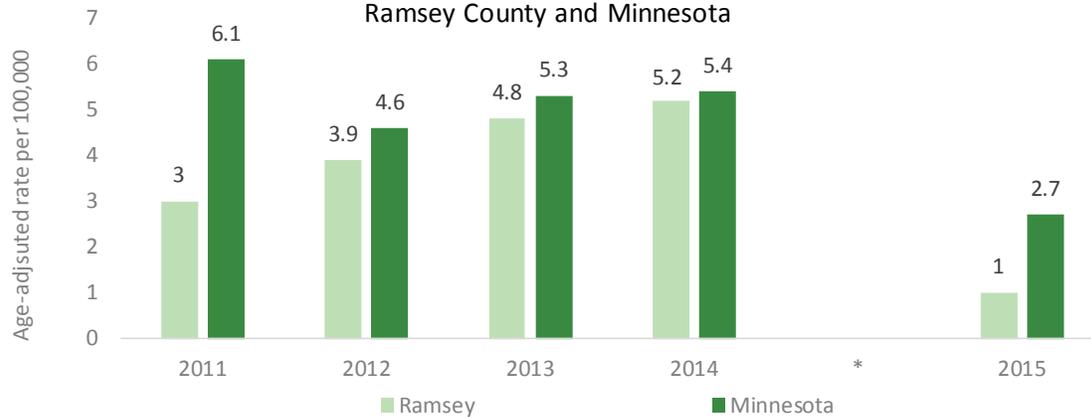
CO Poisoning Emergency Department Visits, Ramsey County



\* Indicates a change in International Classification of Disease coding from ICD9 to ICD10. Rates from 2000-2014 should not be compared to rates from 2015 and later.

Source: Minnesota Department of Health.<sup>7</sup>

Rate of CO Poisoning Emergency Department Visits, Ramsey County and Minnesota



\* Indicates a change in International Classification of Disease coding from ICD9 to ICD10. Rates from 2000-2014 should not be compared to rates from 2015 and later.

Source: Minnesota Department of Health.<sup>7</sup>

<sup>7</sup> MN Tracking Program, MDH. CO poisonings are unintentional, non-fire-related. <https://data.web.health.state.mn.us/co>. Accessed June 20, 2018.

# Childhood Lead Exposure

## DESCRIPTION

Lead poisoning causes many serious health problems for both children (including learning difficulties and behavioral issues) and adults (such as damage to kidneys and reproductive organs, and high blood pressure). Younger children are especially at risk because their bodies absorb more lead as their brains are still developing.<sup>1</sup> The most common source of lead exposure in a home is deteriorated lead-based paint and household dust containing lead. Less common sources include contaminated drinking water and soil, keys, imported toys, spices, cosmetics, pottery and ceramics, and other consumer products.<sup>1</sup> Lead testing is not universal in Minnesota. Children with risk factors for lead exposure (such as older housing or poverty status) are targeted for testing. This includes all children who live in Minneapolis or Saint Paul and all children on public insurance, as well as any child who lives in or regularly visits a home, child care, or other building built before 1978.<sup>2</sup> Recent studies indicate there is no safe level of exposure to lead.<sup>3</sup>

## HOW WE ARE DOING

The Minnesota Department of Health Childhood Blood Lead Screening Guidelines direct physicians to order blood lead tests for children at high risk for exposure.<sup>2</sup> The percentage of Ramsey County children under 6 who get tested for lead has been declining since 2011 even though the child population continues to steadily increase. The Centers for Disease Control and Prevention (CDC) lowered the level of concern for children's blood lead levels in 2012 from 10 to 5 micrograms per deciliter ( $\mu\text{g}/\text{dL}$ ).<sup>3</sup> This has resulted in an increase in the number of Ramsey County children requiring intervention, but that number has been decreasing over time. Ramsey County has one of the largest numbers of children with elevated blood lead levels in Minnesota.<sup>4</sup>

## BENCHMARK INDICATOR

Healthy People 2020<sup>5</sup>:

- 1) Reduce blood lead levels in children aged 1-5 years.  
U.S. Target: 5.2  $\mu\text{g}/\text{dL}$  of lead
- 2) Reduce the mean blood lead levels in children aged 1-5 years.  
U.S. Target: 1.6  $\mu\text{g}/\text{dL}$  average blood lead level

## DISPARITIES

According to the CDC, young children living in poverty are exposed to more sources of lead than children who are not in poverty.<sup>6</sup> Nationally, African-American children have the highest concentrations of blood lead compared to other children.<sup>7</sup>

## RISK FACTORS

Children who are younger than 6 and live in homes built before 1950 are most at risk for lead exposure, because the paint in these homes may contain higher concentrations of lead (continued on back)

## Information to note

- Lead poisoning is considered to be 100% avoidable.
- The number of Ramsey County children receiving lead tests has declined since 2011 even though the eligible child population continues to steadily increase.

## Identified by the community

*"Most of my Karen people live in old apartment complexes, I think this can also be unhealthy for them."*

509 people (24%) mentioned physical environment as a factor that helps them or keeps them from being healthy.

Within these 509 responses, there were 124 responses about clean living spaces and housing.

<sup>1</sup> What Do Parents Need to Know to Protect Their Children? Centers for Disease Control and Prevention. [https://www.cdc.gov/nceh/lead/acclpp/blood\\_lead\\_levels.htm](https://www.cdc.gov/nceh/lead/acclpp/blood_lead_levels.htm). Accessed May 10, 2018.

<sup>2</sup> Minnesota Department of Health. Childhood Blood Lead Screening Guidelines for Minnesota. <http://www.health.state.mn.us/divs/eh/lead/reports/screening/blsg4mn.pdf>. Accessed July 2, 2018.

<sup>3</sup> Minnesota Department of Health. Lead poisoning prevention programs biennial report 2017. <https://www.leg.state.mn.us/docs/2017/mandated/170690.pdf>. Accessed May 11, 2018.

<sup>4</sup> Minnesota Department of Health. Annual elevated blood lead levels: facts and figures. [https://data.web.health.state.mn.us/web/mndata/lead\\_annual\\_level](https://data.web.health.state.mn.us/web/mndata/lead_annual_level). Accessed May 10, 2018.

<sup>5</sup> Healthy People 2020. <https://www.healthypeople.gov/2020/topics-objectives/topic/environmental-health/objectives>. Accessed July 3, 2018.

<sup>6</sup> Minnesota Department of Health. Risk factors for childhood lead exposure: facts & figures. [https://data.web.health.state.mn.us/lead\\_risk](https://data.web.health.state.mn.us/lead_risk). Accessed May 10, 2018.

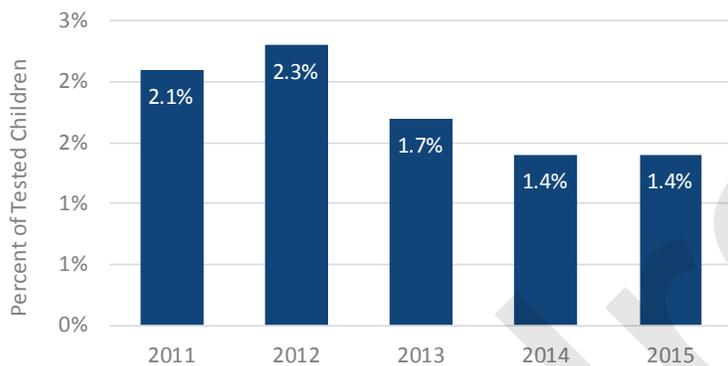
<sup>7</sup> Disparities Overview by Race and Ethnicity. Healthypeople.gov. <https://www.healthypeople.gov/2020/data/disparities/summary/Chart/4356/3>. Accessed May 10, 2018.

(lead-based paint was phased out of residential use in 1950 and eventually banned in 1978 in the U.S.).<sup>8</sup> In Ramsey County 33.2 percent of homes were built before 1950, and 73.6 percent were built prior to 1980.

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

Saint Paul – Ramsey County Public Health coordinates follow-up and confirmation testing if a child’s blood lead level is 5 µg/dL or greater. Information is provided to caregivers on how to reduce and/or avoid exposure to lead. Referrals for educational interventions are also offered. Minnesota law requires environmental interventions for children at 15 µg/dL or greater and pregnant woman who test positive for blood lead levels at 10 µg/dL or greater.<sup>9</sup> Interventions include a housing risk assessment, visits from a public health nurse, enforcement orders, lead-hazard reduction or remediation, and clearance testing. Saint Paul – Ramsey County Public Health staff work closely with homeowners, property managers, the Minnesota Department of Health, the City of Saint Paul and several neighborhood organizations to ensure that all lead-based paint hazards are corrected. Public health nurses monitor the child’s development and nutrition until the lead level drops below 5 µg/dL.

Children Under Age 6 with Elevated Lead Levels  
(above 5 µg/dL), Ramsey County



Source: Minnesota Department of Health.<sup>10</sup>

<sup>8</sup> Minnesota Department of Health. Risk factors for childhood lead exposure: facts & figures. [https://data.web.health.state.mn.us/lead\\_risk](https://data.web.health.state.mn.us/lead_risk). Accessed May 10, 2018.

<sup>9</sup> 2017 Minnesota Statutes Section 144.9504. <https://www.revisor.mn.gov/statutes/cite/144.9504>. Accessed July 2, 2018.

<sup>10</sup> Minnesota Department of Health, Minnesota Public Health Data Access Portal. [http://data.web.health.state.mn.us/lead\\_query](http://data.web.health.state.mn.us/lead_query). Accessed July 2018.

## DESCRIPTION

Radon is a colorless, odorless gas produced from the natural decay of uranium in the soil. Long-term exposure to radon can damage lung cells. Radon is the nation's second leading cause of lung cancer, causing 21,000 lung cancer deaths in the U.S. each year.<sup>1</sup> Radon may enter a home anywhere there is an opening to soil, including cracks in the foundation, floor drains and sump pumps. The levels of radon that can build up indoors vary by the amount of radon in the source material and its rate of entry into the building.

## HOW WE ARE DOING

Two in five Minnesota homes have high radon levels. The Minnesota Department of Health recommends every home be tested for radon.<sup>1</sup> An average of 1,342 homes are tested every year in Ramsey County. Of those tested between 2010-2016, 66.9 percent were at or above the level which mitigation actions were recommended by the Environmental Protection Agency, 32.4 percent were at the level which mitigation actions were highly encouraged.

At 3.3 pCi/L, the average radon level in Ramsey County is more than two times higher than the average U.S. radon level (1.3 pCi/L), while in Minnesota overall it is more than three times higher (4.5 pCi/L).<sup>2</sup> Since 2009, all new home construction in Minnesota must be "mitigation ready," meaning that all the equipment necessary for a radon reduction system is built into the home.<sup>3</sup>

## BENCHMARK INDICATOR

Healthy People 2020:<sup>4</sup>

1) Increase the proportion of new single-family homes constructed with radon-reducing features, especially in high-radon-potential area.

U.S. Target: 100 percent.

2) Increase the proportion of homes with an operating radon mitigation system for persons living in homes at risk for radon exposure.

U.S. Target: 30 percent.

## DISPARITIES

Radon is present everywhere, and all Minnesota homes are at risk to some degree, based on air pressure between the home's interior and the exterior soil and the existence of entrance pathways. Because testing for and removing radon can cost several thousand dollars, those with limited financial resources are less able to avoid radon exposure in their homes.

## RISK FACTORS

Radon can enter a building in a variety of ways regardless of whether it has a basement, is old or new, or is drafty or well insulated. Radon levels are usually highest at entry points and in the lower levels (like a basement), and during the colder months (when buildings are less likely to be open to the outdoors).

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

Saint Paul- Ramsey County Public health sells inexpensive radon test kits to provide a "snapshot" of a resident's home radon level. Public health also educates residents on radon exposure, the importance of home testing and mitigation options for homes with elevated levels.

## Information to note

- 2 out of every 5 homes in Minnesota have high radon levels.
- Of the homes tested for radon every year in Ramsey County, about 32% have levels at or above 4 picocuries per liter (pCi/L).
- Average radon levels in Ramsey County are more than three times higher than the average Minnesota level.

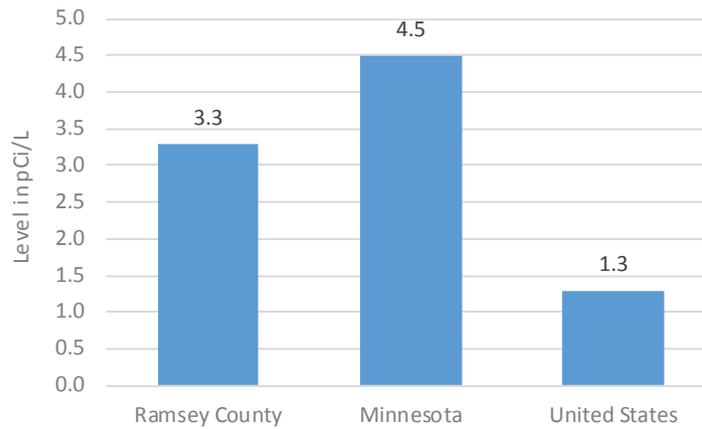
<sup>1</sup> Radon in Minnesota homes. Minnesota Department of Health. <http://www.health.state.mn.us/divs/eh/indoorair/radon/index.html>. Accessed December 6, 2017.

<sup>2</sup> Comparing Minnesota and U.S. average radon levels. Minnesota Department of Health. [https://apps.health.state.mn.us/mndata/radon\\_facts](https://apps.health.state.mn.us/mndata/radon_facts). Accessed December 12, 2017.

<sup>3</sup> Radon resistant new construction. Minnesota Department of Health. <http://www.health.state.mn.us/divs/eh/indoorair/radon/radonresistant.html>. Accessed January 25, 2018.

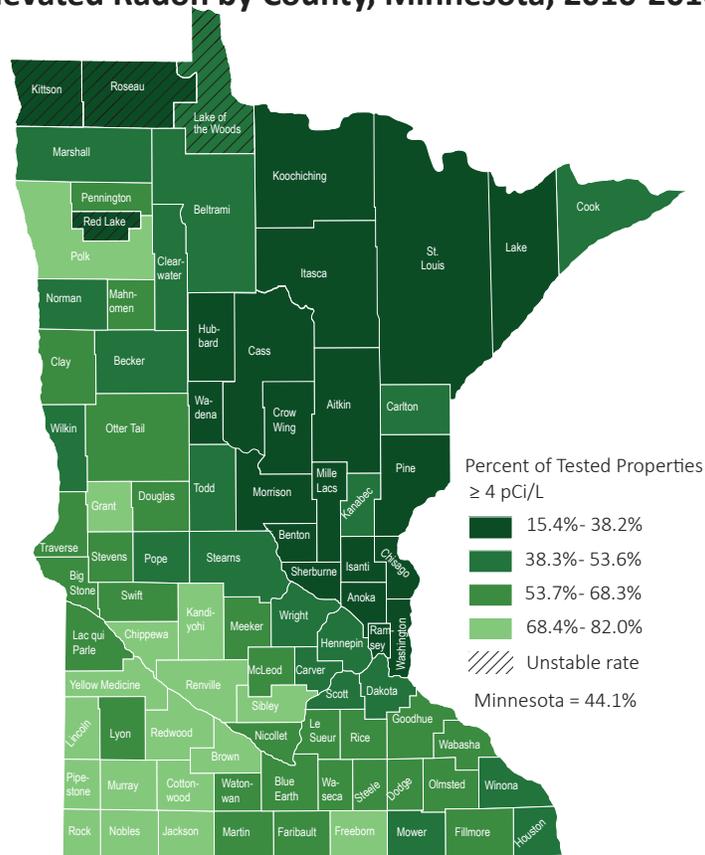
<sup>4</sup> Healthy People 2020. <https://www.healthypeople.gov/2020/topics-objectives/topic/environmental-health/objectives>. Accessed July 2, 2018.

Average Radon Level, 2010-2016



Source: Minnesota Department of Health.<sup>5</sup>

Elevated Radon by County, Minnesota, 2010-2016



Source: Minnesota Department of Health Indoor Air Unit

<sup>5</sup> Minnesota Department of Health. [https://apps.health.state.mn.us/mndata/radon\\_facts#mnavg](https://apps.health.state.mn.us/mndata/radon_facts#mnavg) <https://cfpub.epa.gov/roe/indicator.cfm?i=27#1>. Accessed July 2018.

# Secondhand Smoke

## DESCRIPTION

Smoke from a cigarette, pipe, cigar, or exhaled by smokers creates secondhand smoke. Even brief exposure to secondhand smoke puts children and adults at risk because of the thousands of chemicals released into the air, including 70 that cause cancer.<sup>1</sup> It increases the risk for heart attacks, heart disease, stroke, lung cancer, and can aggravate asthma and other breathing problems including pneumonia and bronchitis. There is no safe level of secondhand smoke exposure.<sup>2</sup> Electronic cigarettes, or e-cigarettes, are considered a tobacco product. While e-cigarettes do not contain smoke, they do expose others to secondhand emissions (including carcinogens and other toxins), resulting in the American Lung Association and the U.S. Surgeon General expressing concern about their impact on health.<sup>3</sup>

## HOW WE ARE DOING

Reported exposure to secondhand smoke among Minnesota adults has declined since 2003. In 2014, exposure varied greatly by setting, with adults reporting more exposure to secondhand smoke in the community at large (31.7 percent) than in a car (6.9 percent) or at home (3.2 percent). The most commonly reported location for community exposure is a building entrance (20percent) followed by “somewhere outdoors” (16.5 percent) and the outdoor patio of a restaurant or bar (12.7 percent). There was a significant decline in “past seven-day” exposure to secondhand smoke in vehicles, as well as a slight decline in home settings.<sup>4</sup>

While smoke-free laws in workplaces and public buildings have greatly reduced exposure to secondhand smoke, nearly half of nonsmoking students in MN are exposed to secondhand smoke (47 percent in 2013 and 46 percent in 2016), with repeated exposure (defined as 3 or more days out of the last 7) being most likely in the home.<sup>2</sup>

In Ramsey County, the percent of 5th graders reporting being in the same room or in the car with someone smoking cigarettes has remained about the same between 2013 and 2016. During that time, however, the exposure for white students has decreased while the exposure for students of color has increased.<sup>5</sup>

## BENCHMARK INDICATOR

Healthy People 2020<sup>6</sup>:

1) Reduce the proportion of adults (18+ years) exposed to secondhand smoke.

U.S. Target: 33.8 percent.

2) Reduce the proportion of children (ages 3 to 11 years) exposed to secondhand smoke.

U.S. Target: 47 percent.

3) Reduce the proportion of children (ages 12 to 17 years) exposed to secondhand smoke.

U.S. Target: 41 percent.

## Information to note

- Nonsmoking Minnesota adults are significantly more likely to be exposed to secondhand smoke in the community at large than in a car or at home.
- Ramsey County 5th grade students of color are more likely to be exposed to secondhand smoke than white students.

<sup>1</sup> Secondhand Smoke Facts. Centers for Disease Control and Prevention. [https://www.cdc.gov/tobacco/basic\\_information/secondhand\\_smoke/index.htm](https://www.cdc.gov/tobacco/basic_information/secondhand_smoke/index.htm). Accessed July 2, 2018.

<sup>2</sup> Tobacco Data. Minnesota Department of Health. [http://www.health.state.mn.us/divs/hpcd/tpc/docs/tobacco\\_data.pdf](http://www.health.state.mn.us/divs/hpcd/tpc/docs/tobacco_data.pdf). Accessed May 16, 2018.

<sup>3</sup> E-cigarettes and Lung Health. American Lung Association. <http://www.lung.org/stop-smoking/smoking-facts/e-cigarettes-and-lung-health.html>. Accessed June 24, 2018.

<sup>4</sup> Tobacco Use in Minnesota: 2014 Update. Minneapolis, MN: ClearWay Minnesota. 2014. [http://clearwaymn.dreamhosters.com/wp-content/uploads/2015/01/MATS\\_2014\\_Technical\\_Report.pdf](http://clearwaymn.dreamhosters.com/wp-content/uploads/2015/01/MATS_2014_Technical_Report.pdf). Published January 2015. Accessed May 18, 2018.

<sup>5</sup> Minnesota Student Survey, Saint Paul- Ramsey County Public Health data set.

<sup>6</sup> Tobacco Use. Healthy People 2020. <https://www.healthypeople.gov/2020/topics-objectives/topic/tobacco-use/objectives>. Accessed June 29, 2018.

## DISPARITIES

Duration of exposure to secondhand smoke varies by age, gender, education and income.<sup>7</sup> Adults aged 45 – 64 and males reported shorter exposure than all other age groups and females. People with college degrees reported significantly shorter exposure times than other education levels. Adults making \$75,000 or more per year also reported significantly less secondhand smoke exposure than those making less than \$50,000.

## RISK FACTORS

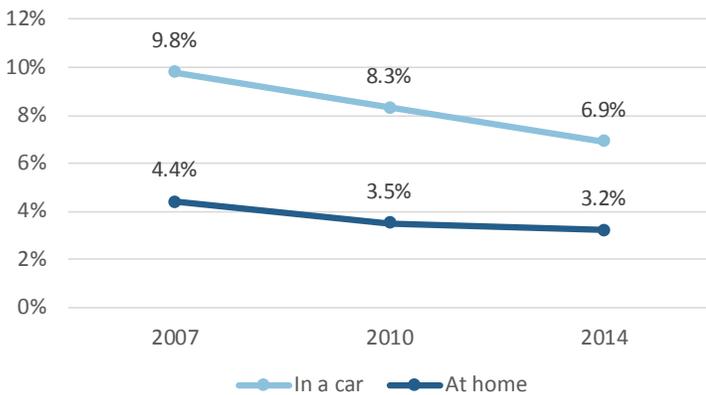
Children are particularly vulnerable to the risks of secondhand smoke because they are still developing and are less able to control their surroundings. They may be at increased risk for secondhand smoke-related disease and illness, and infants are at a greater risk for sudden infant death syndrome (SIDS).<sup>8</sup>

## WHAT RAMSEY COUNTY IS DOING

To help prevent adverse health effects of cigarettes and e-cigarettes in public spaces, the Ramsey County Clean Indoor Air Ordinance was passed in November 2015. It prohibits the use of electronic cigarettes (or e-cigarettes) in public spaces where cigarette smoking is currently prohibited under the Minnesota Clean Indoor Act, as well as prohibiting vaping or smoking within 25 feet of public building entrances.

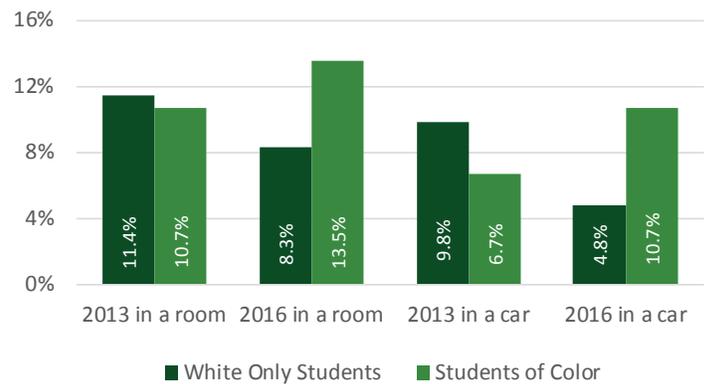
Saint Paul – Ramsey County Public Health responds to violations of the Minnesota Clean Indoor Air Act in licensed establishments in the county. In addition, public health’s Tobacco-Free Living Initiative partners with the American Lung Association to educate managers and owners of multi-unit housing on the dangers of smoking and secondhand smoke, and how to create smoke-free environments in their buildings.

Non-smoking Adults Exposed to Secondhand Smoke, Minnesota



Source: ClearWay Minnesota & Minnesota Department of Health.<sup>9</sup>

5th Graders Exposed to Secondhand Smoke, Ramsey County



Source: Minnesota Student Survey. Ramsey County data set.

<sup>7</sup> Tobacco Use in Minnesota: 2014 Update. Minneapolis, MN: ClearWay Minnesota and Minnesota Department of Health; January 2015. [http://www.mntobacco.nonprofitoffice.com/vertical/Sites/%7B988CF811-1678-459A-A9CE-34BD4COD8B40%7D/uploads/MATS\\_2014\\_Technical\\_Report\\_Final\\_2015-01-21.pdf](http://www.mntobacco.nonprofitoffice.com/vertical/Sites/%7B988CF811-1678-459A-A9CE-34BD4COD8B40%7D/uploads/MATS_2014_Technical_Report_Final_2015-01-21.pdf). Accessed May 18, 2018.

<sup>8</sup> Tobacco Data. Minnesota Department of Health. [http://www.health.state.mn.us/divs/hpcd/tpc/docs/tobacco\\_data.pdf](http://www.health.state.mn.us/divs/hpcd/tpc/docs/tobacco_data.pdf). Accessed May 16, 2018.

<sup>9</sup> The Minnesota Adult Tobacco Survey [https://mntobacco.nonprofitoffice.com/index.asp?Type=B\\_BASIC&SEC={ECE0A1FF-DC5A-4C9C-AA08-8E9A97B14D07}](https://mntobacco.nonprofitoffice.com/index.asp?Type=B_BASIC&SEC={ECE0A1FF-DC5A-4C9C-AA08-8E9A97B14D07}). Accessed May 18, 2018.

## DESCRIPTION

Though often used interchangeably, “weather” and “climate” have different meanings. Weather reflects short-term conditions of the atmosphere; climate is the average daily weather for an extended period (usually 30 years or more) at a certain location.

Climate change is occurring in Minnesota and its impacts are affecting our state’s environment, economy and communities. Government agencies across the state are concerned about the impacts of a changing climate on our natural resources, economy, health and quality of life, and are taking actions to address these emerging challenges.<sup>1</sup> Work on climate change can be categorized into two areas: mitigation and adaptation. The goal of mitigation is to limit the magnitude or progression of climate change by addressing the causes (such as greenhouse gas emissions), while adaptive approaches are actions taken to prepare for and respond to the effects of climate change on humans and natural systems. Without effective mitigation, humans and natural systems will find it increasingly difficult, if not impossible, to adapt.<sup>2</sup>

## HOW WE ARE DOING

There are three pronounced trends in Minnesota and Ramsey County when it comes to climate change: it’s becoming warmer and wetter; wintertime, nights and cold extremes are warming the fastest; and heavy and extreme rainfall is increasing and becoming more frequent.<sup>3</sup>

Since 2001, Minnesota has experienced 10 of its top 20 warmest years on record dating to 1895. Two of the state’s top five warmest years have happened in the last five years: 2012 was the second-warmest year, and 2016 ranked as the fifth-warmest year. Since the start of the 20th century, the annual average temperature statewide has risen more than 2 degrees Fahrenheit, with most of the warming occurring in winter. In December-February, temperatures have risen about 4 degrees Fahrenheit (1896-2017). Minnesota’s average temperature could rise 4 to 5 degrees Fahrenheit by the middle of the century (2041-2070) as compared to 1971-2000<sup>4</sup>. Both the long-term and recent rates of warming in Minnesota are faster than national and global trends.<sup>5</sup>

Annual average precipitation – rain and melted snow combined – is expected to increase, particularly in spring and winter. Decades of records show that the number of 3-inch rainfalls is steadily increasing. Simultaneously, droughts could become more intense due to warmer temperatures increasing the soil moisture loss in times of dry weather. Ice cover on Minnesota’s lakes is building later than usual and melting sooner in spring. Poor air quality days could also become more numerous due to hotter temperatures, leading to the formation of ground-level ozone.<sup>3</sup>

Over the last several decades, the state has experienced substantial warming during winter and at night, with increased precipitation throughout the year, often from larger and more frequent heavy rainfall events. The heaviest snowstorms have also become larger, even as winter has warmed. These changes alone have damaged buildings and infrastructure,

## Information to note

- Our weather is becoming warmer and wetter.
- Climate-related events affect individuals differently based on socioeconomic status, age and other factors.

<sup>1</sup>Adapting to Climate Change in Minnesota: 2017 Report of the Interagency Climate Adaptation Team. Minnesota Department of Health. <https://www.pca.state.mn.us/sites/default/files/p-gen4-07c.pdf>. Published May 2017. Accessed December 15, 2017.

<sup>2</sup>Responding to Climate Change. National Aeronautics and Space Administration. Global Climate Change: Vital Signs of the Planet. <https://climate.nasa.gov/solutions/adaptation-mitigation/>. Accessed April 30, 2018.

<sup>3</sup>Dolce C. Minnesota: Real Impacts in an Unexpected Place. The Weather Company. <http://features.weather.com/us-climate-change/minnesota/>. Published May 18, 2017. Accessed December 15, 2017.

<sup>4</sup>Pryor, S. C., D. Scavia, C. Downer, M. Gaden, L. Iverson, R. Nordstrom, J. Patz, and G. P. Robertson, 2014: Ch. 18: Midwest. Climate Change Impacts in the United States: The Third National Climate Assessment, J. M. Melillo, Terese (T.C.) Richmond, and G. W. Yohe, Eds., U.S. Global Change Research Program, 418-440. doi:10.7930/JOJ1012N. <https://nca2014.globalchange.gov/report/regions/midwest>. Accessed June 20, 2018.

<sup>5</sup>National Oceanic and Atmospheric Administration. Climate at a Glance. NOAA climate.gov. <https://www.climate.gov/maps-data>. Accessed December 15, 2017.

limited recreational opportunities, altered our growing seasons, impacted natural resources, and affected the conditions of lakes, rivers, wetlands, and our groundwater aquifers that provide water for drinking and irrigation. The years and decades ahead are predicted to continue this trend and additional climatic changes.<sup>6</sup>

## DISPARITIES

As climate change impacts factors like heat stress, air pollution, and affordable fresh food, reliance on strategies such as health care and air conditioning are likely to widen the mortality gap between the rich and poor, who do not have equal access to health care, clean air, or weatherized homes.<sup>7</sup>

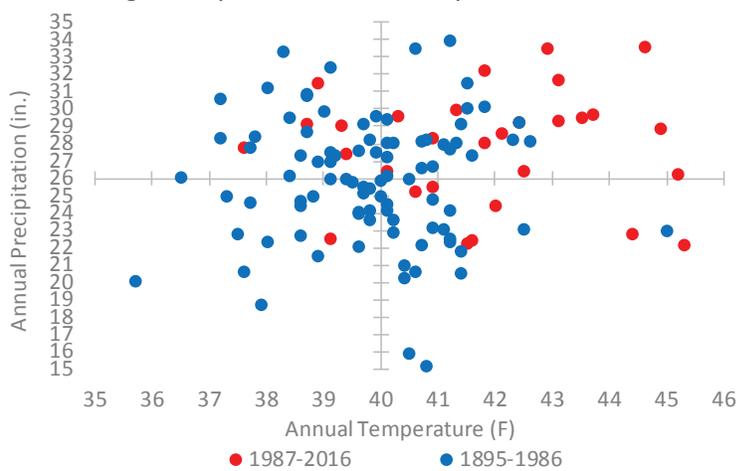
## RISK FACTORS

Socio-economic status, education level, age, communication barriers, housing conditions and type of employment influence vulnerability. For example, those over 85 or under 5 years old, living in poverty, lacking access to air conditioning, and/or working outdoors are especially vulnerable to the effects of an extreme-heat event.

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

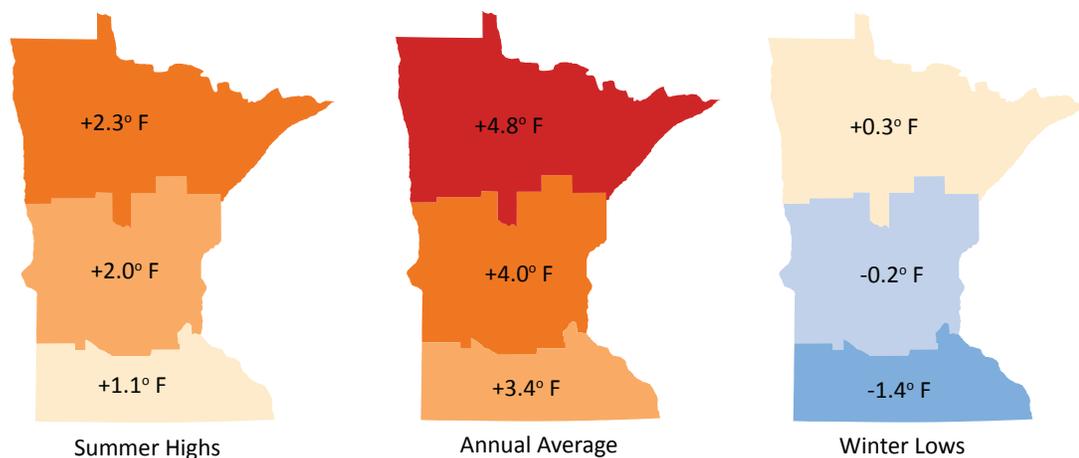
A climate change health vulnerability assessment was completed by Saint Paul – Ramsey County Public Health that describes: climate change trends, how these trends directly and indirectly affect human health, characteristics that increase individual vulnerability to the effects of climate change, and geographic regions of vulnerability in the county. Ramsey County will be working to develop community-based actions that can be implemented to address areas of vulnerability and increase resilience in the face of a changing climate.

Average Temperature and Precipitation, Minnesota



Source: Minnesota State Climatology Office.

Total Temperature Change, Minnesota, 1895 - 2015



Source: Minnesota State Climatology Office.

<sup>6</sup> Adapting to Climate Change in Minnesota: 2017 Report of the Interagency Climate Adaptation Team. Minnesota Department of Health. <https://www.pca.state.mn.us/sites/default/files/p-gen4-07c.pdf>. Published May 2017. Accessed December 15, 2017.

<sup>7</sup> Schwartz RM, Gillezeau CN, Liu B, Lieberman-Cribbin W, Taioli E. Longitudinal impact of hurricane Sandy exposure on mental health symptoms. *Int. J. Environ. Res. Public Health*. 2017; (9): pii: E957. doi: 10.3390/ijerph14090957. <https://www.ncbi.nlm.nih.gov/pubmed/28837111>. Accessed April 30, 2018.

## DESCRIPTION

Every community must prepare for and respond to hazardous events, whether a natural disaster like a tornado, a disease outbreak, or a human-made event like a harmful chemical spill. Many factors, including poverty, lack of access to transportation, and crowded housing may weaken a community's ability to prevent human suffering and financial loss in the event of disaster. These factors are known as social vulnerability. Social vulnerability may impact the resilience of communities when confronted by external stresses, such as natural or human-caused disasters. Reducing social vulnerability can decrease both human suffering and economic loss.<sup>1</sup>

The Agency for Toxic Substances & Disease Registry (ATSDR) at the Centers for Disease Control and Prevention developed a national social vulnerability index (SVI) to identify areas most likely to need support to prepare for, respond to, and recover from a hazardous event. The SVI ranks each census tract on several factors. Areas with higher percentages of minorities, people who have limited English proficiency, persons below poverty, unemployed, and without a high school diploma as well as lower per capita income will have a higher vulnerability score. Areas with higher percentages of persons age 65+, age 17 and younger, residents with a disability and single parent households with young children, multi-unit housing, mobile homes, crowded homes, no vehicle access, and institutionalized group quarters will also have a higher vulnerability score.<sup>1</sup>

## HOW WE ARE DOING

Areas of moderate to high vulnerability for socio-economic status located areas along and north of I-94, St. Paul's East Side and West Side and parts of Mounds View.

Areas of moderate to high vulnerability for household composition and disability are along and north of I-94, St. Paul's East Side and West Side and parts of Mounds View, New Brighton, Maplewood, White Bear Lake, Roseville and Little Canada.

Areas along and north of I-94, St. Paul's East Side and West Side and in parts of Mounds View, St. Anthony, Maplewood, Lauderdale, Falcon Heights and Little Canada have the most residents with limited English language proficiency.

Areas of high vulnerability in Ramsey County are predominantly in St. Paul along and north of I-94, St. Paul's East Side and West Side, and in parts of Mounds View, New Brighton and Roseville.

## DISPARITIES AND RISK FACTORS

The social and economic marginalization of certain racial and ethnic groups, including ongoing real estate discrimination, have rendered these populations more vulnerable at all stages of disaster or event. Multi-unit housing in densely populated areas also poses a heightened risk for tenants.<sup>1</sup>

Children under 17 years of age are more vulnerable due to the developing state of their immune systems and their dependence on adult supervision. In addition, their bodies are not able to regulate temperature as well. Older adults tend to be more vulnerable to the negative impacts of climate change especially extreme weather events, such as periods of intense heat and humidity. Vulnerability is due to a variety of factors, such as limited mobility, existing chronic conditions or multiple illnesses, and dependence on others for basic care needs. People with disabilities may have additional special needs that often require support from others.<sup>1</sup>

## Information to note

- Areas of high vulnerability in Ramsey County are along and north of I-94, St. Paul's East Side and West Side and in some areas of Mounds View, New Brighton, & Roseville.

<sup>1</sup>Centers for Disease Control and Prevention. The Agency for Toxic Substances & Disease Registry. The social vulnerability index. <https://svi.cdc.gov/>. Accessed July 2018.

Housing quality is an important factor in evaluating disaster vulnerability. It is closely tied to personal wealth; that is, poor people often live in more poorly constructed houses or mobile homes that are especially vulnerable to strong storms.<sup>1</sup>

Mobile homes may not be designed to withstand severe weather or flooding and typically do not have basements. They may not be readily accessible by interstate highways or public transportation. Also, because mobile homes are often clustered in communities, the overall vulnerability of their inhabitants is increased.<sup>1</sup>

People living in high-rise apartments are vulnerable to overcrowding when funneled into a limited number of exit stairwells. Furthermore, large numbers of people exiting in the street can make safe and orderly evacuation of everyone difficult and dangerous. Crowding within existing housing units may exacerbate these difficulties.<sup>1</sup>

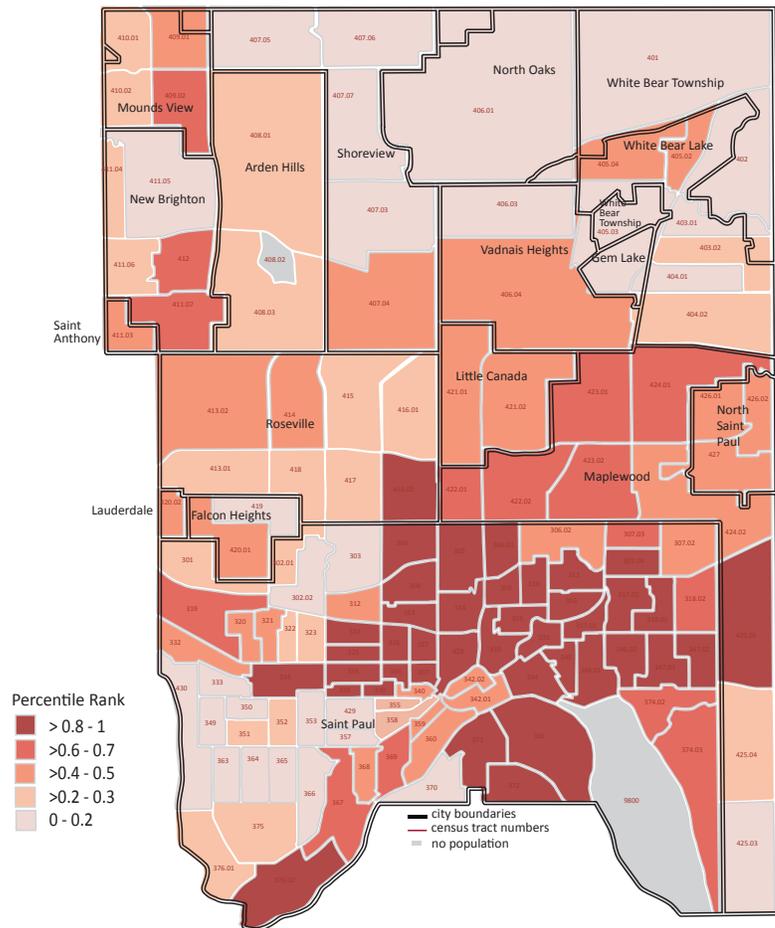
Rates of automobile ownership are generally lower in urban areas. Transportation out of an evacuation zone is problematic for people who do not have access to a vehicle. For some people, fuel costs may prevent vehicle use.<sup>1</sup>

Populations residing in group quarters such as college dormitories, psychiatric institutions, and prisons also present special concerns during evacuation. Residents of nursing homes and long-term care facilities are especially vulnerable because of their special and timely needs. Known issues around understaffing in emergencies may exacerbate underlying health issues in the populations. Moreover, many institutions are unprepared to quickly remove their entire staff and residents under conditions that require specialized vehicles.<sup>1</sup>

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

Ramsey County uses social vulnerability index data to identify communities that will need extra support during emergencies. This includes estimating the amount of needed supplies like food, water, medicine and bedding, and the number of emergency personnel required to assist people living in more vulnerable communities.

### Social Vulnerability by Census Tract, Ramsey County, 2016



Source: Centers for Disease Control and Prevention.<sup>2</sup>

<sup>2</sup> Source: Centers for Disease Control and Prevention. The Agency for Toxic Substances & Disease Registry. The social vulnerability index. <https://svi.cdc.gov/>. Accessed July 2018.

## DESCRIPTION

Through its 2011 Ramsey County Energy Management and Stewardship Plan, a framework for energy efficiency and conservation in the county is in place, with a commitment to maximizing energy-related investment dollars, reducing energy use, demonstrating environmental steward and managing public funds responsibly.<sup>1</sup> One purpose of the plan is to reduce public health risks. Most of Ramsey County's energy supply has historically come from fossil fuels, the burning of which contributes to air and water pollution.

## HOW WE ARE DOING

Energy use is trending down in Ramsey County buildings. In 2008, total energy consumed to heat, cool, operate and provide for energy needs in buildings under county ownership was 317,616 MBTU. By 2015, this annual number had fallen to just over 256,535 MBTU, a 20 percent reduction.<sup>2</sup>

While energy use is one data point to measure, reporting on that alone doesn't accurately reflect progress towards overall energy management goals. For example, as a single category, energy use includes energy obtained from a variety of sources, while the burning of fossil fuels specifically has a more direct and negative impact on health than does the use of renewable sources of energy. Tracking greenhouse gas emissions is another important measure of sustainability and environmental stewardship. Engagement in the activities outlined in the county's energy plan will enable a more robust analysis of progress toward energy efficiency and carbon reduction goals in the coming years.

## BENCHMARK INDICATOR

Minnesota Next Generation Energy Act<sup>3</sup>: Reduce energy use and greenhouse gas emissions.

Minnesota Target: 15% reduction from 2005 levels.

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

Ramsey County Property Management provides professional facility management services to 18 county buildings. These buildings represent approximately 70 percent of the 3.2 million square feet owned by the county. Property Management partners with the departments responsible for the remaining 30 percent (Community Corrections, Social Services and Financial Assistance, Parks and Recreation, Saint Paul – Ramsey County Public Health and the Medical Examiner), providing consultation when requested on building and energy related issues. The County's Energy and Sustainability Coordinator coordinates energy and sustainability functions, work teams, measurement and reporting, projects, and programs.

Since the mid 1990s, Property Management has used a variety of energy saving strategies to its physical infrastructure, including: identifying energy-efficiency opportunities, conducting energy-efficient lighting retrofits in all Ramsey County facilities over 5000 square feet, conducting a design performance calculation based on best available technology for energy-efficiency and resource-use for all new construction and remodeling projects, constructing the new Roseville Library as the first Leadership in Energy and Environmental Design (LEED) Gold certified building owned by Ramsey County and purchasing and using software to track utility use in buildings.

Ramsey County is piloting the use of renewable energy in its Parks and Recreation

## Information to note

- Ramsey County has been integrating energy-efficiency measures into county operations for more than twenty years.
- Energy use in Ramsey County facilities is decreasing.

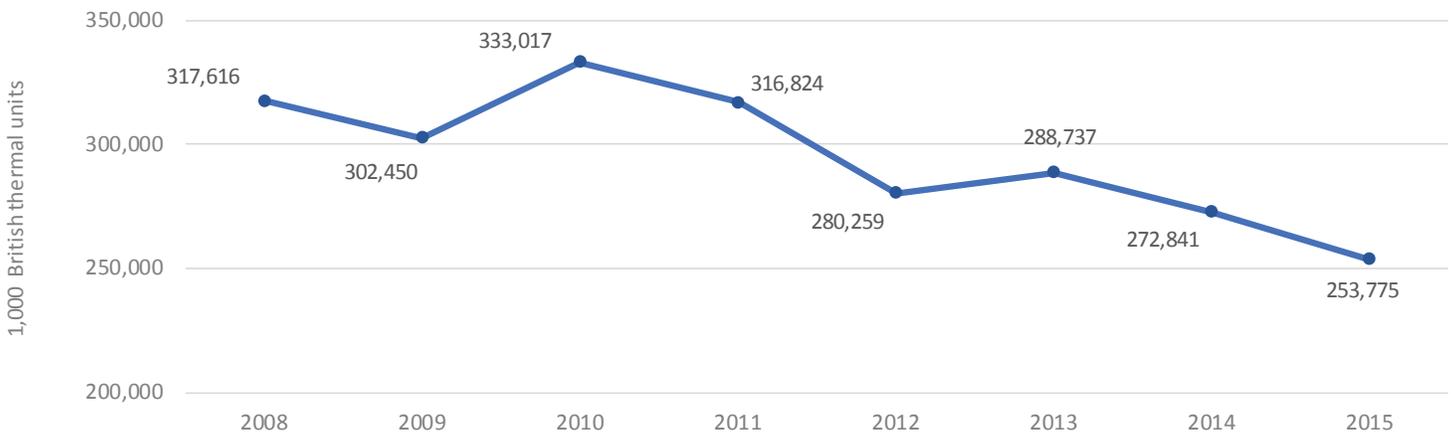
<sup>1</sup> Ramsey County Energy Management and Stewardship Plan. March 4, 2011. [http://www.mepec-mn.org/Best%20Practices/policies/ramsey\\_energy\\_management\\_plan\\_2011.pdf](http://www.mepec-mn.org/Best%20Practices/policies/ramsey_energy_management_plan_2011.pdf). Published March 4, 2011. Accessed December 29, 2017.

<sup>2</sup> Saint Paul – Ramsey County Public Health data set. February 1, 2018.

<sup>3</sup> Minnesota Center for Environmental Advocacy. Clarification of the Next Generation Energy Act. Section 216H.03. [http://www.mncenter.org/uploads/7/9/3/5/79357940/next\\_gen\\_energy\\_act\\_f.pdf](http://www.mncenter.org/uploads/7/9/3/5/79357940/next_gen_energy_act_f.pdf). Accessed July 2, 2018.

department, including a “Green Spaces, Green Places” campaign (a commitment to reducing energy use in all department facilities 35% by 2025), an “Energy Week” (to promote energy conservation, use of renewable energy and increased awareness around energy goals), and a “Green Ice” initiative (to reduce energy usage at the county’s arenas).

### Energy Use in Ramsey County Buildings



Source: Saint Paul – Ramsey County Public Health.

## DESCRIPTION

Minnesota law includes a hierarchy of methods to manage waste that includes reduction and reuse (most preferred), recycling and composting, energy recovery, and land disposal (least preferred).<sup>1</sup> Acknowledging that land disposal is the least preferred method of waste management, Ramsey County is committed to managing waste in better ways.

The Minnesota Pollution Control Agency (MPCA) is responsible for establishing solid waste policy and planning in accordance with Minnesota's Waste Management Act.<sup>2</sup> The MPCA prepares a policy plan every six years with input from state agencies, county staff, and a variety of stakeholders.<sup>3</sup> Counties are responsible for a number of activities such as developing policy and adopting ordinances; financing the waste-management system; ensuring technical, financial and other support for partners (including cities, school districts, and other private and non-profit entities); and providing collection and management of certain materials. Through the Recycling & Energy Board, Ramsey and Washington Counties work together on solid-waste management, focusing on getting the most value out of what is thrown away, increasing recycling and reducing the amount discarded.<sup>4</sup>

There are specific 5-year objectives to reduce land disposal of waste through 2036. The MPCA objectives include targets for waste reduction, recycling, organics recovery, resource recovery and landfilling. Minnesota Statute<sup>2</sup> also establishes a goal for metro counties to ensure that 75% of solid waste generated is recycled (including organics that are composted) by 2030.

## HOW WE ARE DOING

Ramsey County diverted 87% of discarded material (waste recycled, composted and resource recovery) from landfills in 2016. During 2007-2016, the percentage of discarded waste managed as recycling or organics has risen steadily, largely due to increased organics-management efforts (e.g., residential drop-offs, food-to-hogs programs, yard waste collection, etc.). From 2007-2016, an average of 36% of discarded material was used for resource recovery (defined as the recovery of energy and usable materials during the processing of mixed municipal solid waste).<sup>2</sup>

### BENCHMARK INDICATOR

Healthy People 2020: Increase the percent of municipal solid waste recycled.

U.S. Target: 36.5 percent.

MN Metro County Targets: 63% recycled by 2020; 68% recycled by 2025; 75% recycled by 2030; 2% landfilled by 2020; 1% landfilled by 2025.

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

With the purchase of the Recycling & Energy Center in Newport (R&E Center) completed January 1, 2016, Ramsey County is taking significant steps towards meeting both the metro policy plan objectives and the 2030 legislative goal of 75% recycling. Ramsey County has started directing all Ramsey and Washington County trash to the R&E Center by diverting most waste that would have been landfilled and by removing more materials for recycling. Ramsey and Washington Counties, through the Recycling & Energy Board, are also (continued on back)

## Information to note

- From 2007-2016, Ramsey County reduced the amount of waste landfilled from 22% to 13%.
- Since 2008 Ramsey County recycling rates have met or exceeded both state and national targets.

<sup>1</sup> 2015 Solid Waste Policy Report. Minnesota Pollution Control Agency. <https://www.pca.state.mn.us/sites/default/files/lrw-sw-15y15.pdf>. Published January 2016. Accessed December 18, 2017.

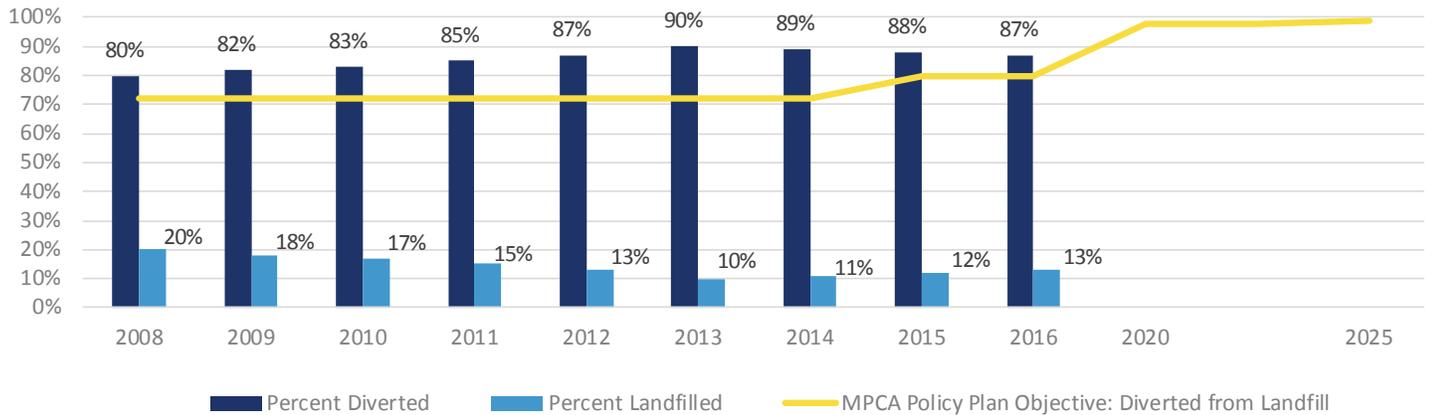
<sup>2</sup> Minnesota Statutes 2017, section 115A.551. <https://revisor.mn.gov/statutes/?id=115A&view=chapter#stat.115A.551>. Accessed June 29, 2017.

<sup>3</sup> Metropolitan Solid Waste Management Policy Plan. Minnesota Pollution Control Agency. <https://www.pca.state.mn.us/waste/metropolitan-solid-waste-management-policy-plan>. Accessed December 18, 2017.

<sup>4</sup> Connecting value to waste. Ramsey/Washington Recycling and Energy Board. <http://morevaluelesstrash.com/>. Accessed December 18, 2017.

expanding and improving programs to help businesses start, expand, improve, and manage recycling, including organics collection, through on-site consultations, technical assistance, expert advice, guidance and grant funding.<sup>5</sup>

### Solid Waste Diversion from Landfill, Ramsey County



Source: Saint Paul – Ramsey County Public Health

### Waste Managed as Recycling or Organics, Ramsey County



Source: Saint Paul – Ramsey County Public Health

<sup>5</sup> BizRecycling: Less Trash, More Savings. <http://www.bizrecycling.com/>. Accessed December 18, 2017.

# Leading Causes of Death

## DESCRIPTION

There are over 40,000 deaths in Minnesota each year. While death is inevitable, concerns arise when preventable causes of death increase or new causes of death emerge. There were 4,106 deaths in Ramsey County during 2016. More than half of these were due to the top five causes of death; cancer, heart disease, unintentional injury, chronic lower respiratory disease, and Alzheimer's disease.<sup>1</sup> The leading causes of death for young people are quite different. Birth conditions, congenital anomalies, unintentional injury, and suicide are leading causes of death for those in younger age groups.<sup>2</sup>

In 1993, researchers offered a new conceptualization of cause-of-death classification, one that acknowledged and quantified the contributions of individual behavior.<sup>3</sup> The most prominent contributor to mortality in 1990 was tobacco, followed by diet and activity patterns. A decade later, updated findings using data from 2000 showed a growing contribution of poor diet and physical inactivity.<sup>4</sup> More recently, Galea et.al. argued for a broader conceptualization of the causes of mortality and estimated the number of deaths in the U.S. attributable to low education, individual poverty, area poverty, low social support, racial segregation and income inequality. They found that deaths attributable to social factors is comparable to the number attributed to disease progression and individual behaviors.<sup>5</sup>

## HOW WE ARE DOING

In 2016 in Minnesota, the age-adjusted mortality rate was 647.7 per 100,000 residents, totaling 43,050 deaths, of which 38.4 percent were premature (under 75 years of age).<sup>1</sup> For the top three leading causes of deaths to Minnesotans between 2012 and 2016, the cancer mortality rate was 152.8 per 100,000, 116.6 for heart disease and 41.5 for unintentional injury. In Ramsey County, the mortality rate for all causes of death was 677.6 per 100,000 residents, totaling 4,106 lives lost, of which 41.2 percent were premature. For the top three leading causes of death in Ramsey County between 2012 and 2016, the cancer mortality rate was 155.0 per 100,000 population, 110.8 for heart disease, and 41.8 for unintentional injury.<sup>1</sup>

## DISPARITIES

Mortality rates and leading causes of death vary greatly by age, race/ethnicity, and geography. Race disparities are evident when comparing age-adjusted death rates in Ramsey County. Death rates in Ramsey County for cancer, heart disease and unintentional injury are much higher for African-Americans.<sup>6</sup>

## RISK FACTORS

Poor diet and physical inactivity along with tobacco use are the top individual behavior contributors to preventable deaths in the U.S.<sup>7</sup> Education less than high school, poverty, low social support, income inequality and racial segregation are the social factors associated with increase in the risk of death.<sup>5</sup>

## Information to note

- In 2016 there were 4,106 deaths in Ramsey County, a rate of 677.6 per 100,000 residents, which was higher than the State rate of 647.7.
- Death rates in Ramsey County for cancer, heart disease and unintentional injury, are much higher for African-Americans.

<sup>1</sup> 2017 County Health Tables. Minnesota Department of Health. <http://www.health.state.mn.us/divs/chs/genstats/countytables/profiles2017/index.html>. Accessed June 2018.

<sup>2</sup> Minnesota Center for Health Statistics. Minnesota Department of Health. <http://www.health.state.mn.us/divs/chs/>. Accessed June 2018.

<sup>3</sup> McGinnis J, Foege W. Actual causes of death in the United States. *JAMA*. 1993;270(18):2207-2212. <https://jamanetwork.com/journals/jama/article-abstract/409171>. Accessed June 2018.

<sup>4</sup> Mokdad A, Marks J, Stroup D, Gerberding J. Actual causes of death in the United States, 2000. *JAMA*. 2004;291(10):1238-1245.

<sup>5</sup> Galea S, Tracy M, Hoggatt K, DiMaggio C, Karpati A. Estimated deaths attributable to social factors in the United States. *Amer J Pub Health*. 2011;101(8):1456-1465. <https://ajph.aphapublications.org/doi/full/10.2105/AJPH.2010.300086>. Accessed June 2018.

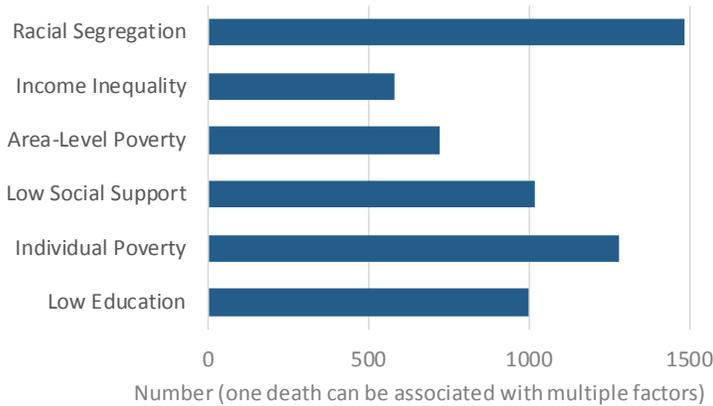
<sup>6</sup> Vital Statistics Interactive Queries. Minnesota Department of Health. <https://mhsq.web.health.state.mn.us/frontPage.jsp>. Accessed June 2018.

<sup>7</sup> Murray, C. The State of US Health, 1990-2010. Burden of Diseases, Injuries, and Risk Factors. *JAMA*. 2013. <http://jamanetwork.com/journals/jama/fullarticle/1710486#figure-table-tab>. Published August 14, 2013. Accessed July 27, 2017.

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

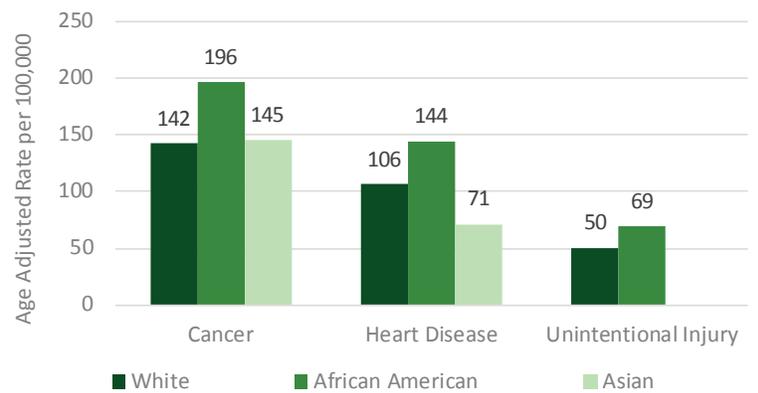
Ramsey County provides funding to five Ramsey County community clinics to help off-set the cost of services, including primary care, which are provided to uninsured and underinsured clients. These community clinics are located in the City of Saint Paul, serving a racially diverse population. Saint Paul – Ramsey County Public Health maintains a disease surveillance role, monitoring the leading causes of death in Ramsey County.

Estimate of Deaths Associated with Social Factors, Ramsey County, 2016



Source: Am J Public Health.<sup>8</sup>

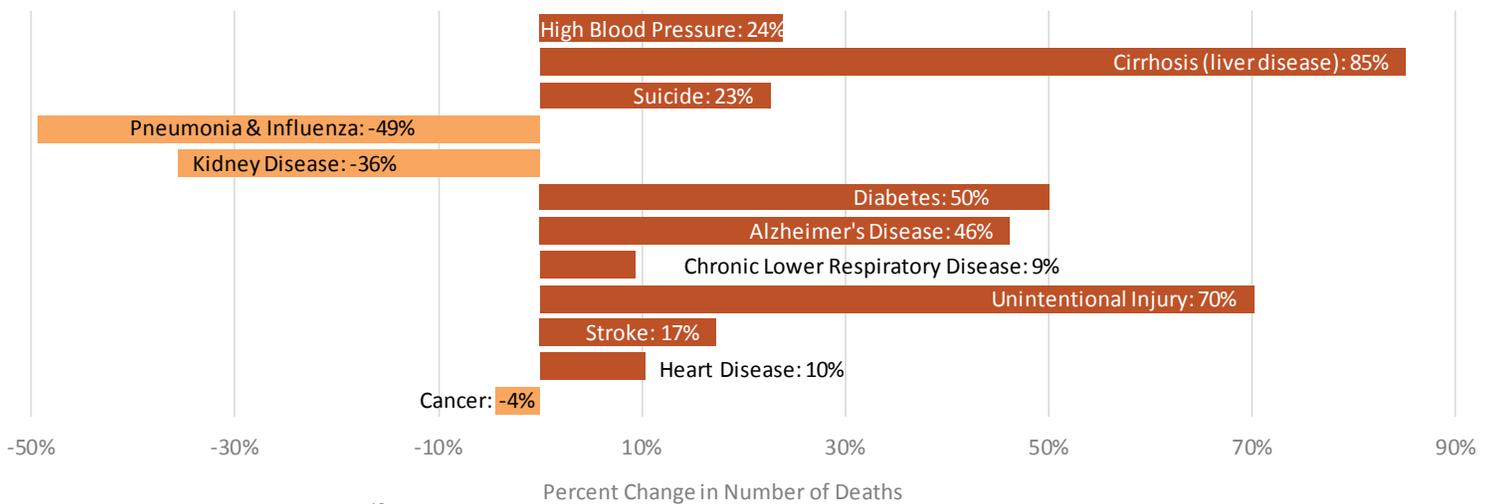
Death Rates by Cause and Race, Ramsey County, 2016



\* Not enough data to calculate rate.

Source: Minnesota Department of Health.<sup>9</sup>

Change in Top Leading Causes of Death, Ramsey County, 2010-2016



Source: Minnesota Department of Health.<sup>10</sup>

<sup>8</sup> Saint Paul-Ramsey County Public Health analysis based on Galea T, Hoggatt K, Dimaggio C, Karpati A. Estimated deaths attributable to social factors in the United States. Am J Public Health. 2011;101(8):1456-65.

<sup>9</sup> Vital Statistics Interactive Queries. Minnesota Department of Health Website. <https://mhsq.web.health.state.mn.us/frontPage.jsp>. Accessed June 2018.

<sup>10</sup> Minnesota Department of Health. Minnesota County Health Tables. <http://www.health.state.mn.us/divs/chs/countytables/index.htm>. Accessed April 27, 2018.

# Years of Potential Life Lost

## DESCRIPTION

Years of potential life lost (YPLL) is a summary measure of premature mortality (early death). It represents the total number of years not lived by people who die before reaching a given age. Deaths among younger persons contribute more to the YPLL measure than deaths among older persons. In the U.S., the age limit is often placed at age 75. The number of years that a death occurs before age 75 are counted as years of potential life lost. YPLL can be measured as death from all causes, or as deaths from specific causes. In the U.S. cancer is the second leading cause of death but accounts for the largest YPLL per 100,000.<sup>1</sup>

## HOW WE ARE DOING

For Minnesota in 2016, there were 16,555 premature deaths from all causes and an age-adjusted premature death rate of 249.4 (the number of deaths to residents under age 75 per 100,000). During that same year in Ramsey County, there were 1,694 deaths and a premature death rate of 279.2, which is much higher than the state rate. Because these 1,694 occurred before the person turned 75, it translates into 31,202 years of potential life lost. Compared to other metro counties, Ramsey County has the highest rate, with Hennepin County second highest at 239.7, which is lower than the state rate.<sup>2</sup>

## DISPARITIES

In the last 15 years, premature death rates decreased among Hispanics, African-Americans and Asian/Pacific Islanders, due to fewer deaths from cancer, heart disease and HIV. Premature death rates are increasing among whites and American Indian/Alaska Natives nationally, due to drug overdoses, suicide and liver disease.<sup>3</sup>

## RISK FACTORS

U.S. counties with lower incomes, higher prevalence of smoking, and lower education levels are associated with higher premature death rates. These relationships vary in magnitude and significance related to income groups.<sup>4</sup>

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

text

## Information to note

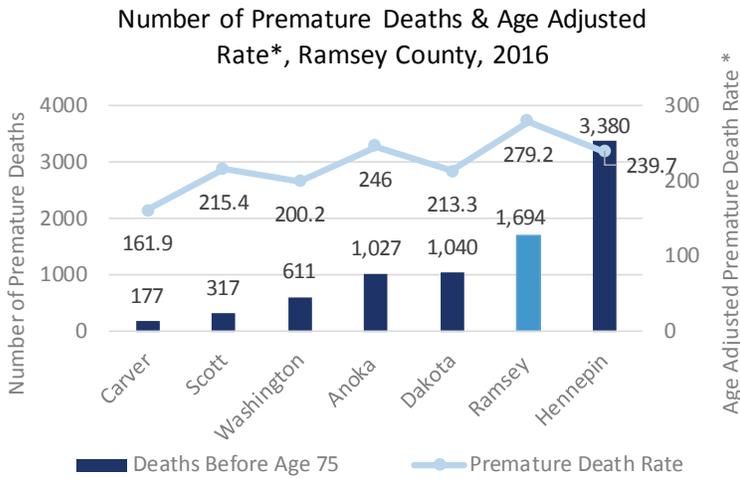
- Ramsey County has a higher premature death rate than any other metro county and Minnesota.
- Premature deaths among whites and American Indian/Alaska Natives are increasing due to causes such as drug overdoses, suicide and liver disease.

<sup>1</sup> General health status. HealthyPeople 2020. <http://healthypeople.gov/2020/about/GenHealthAbout.aspx>. Accessed August 2018.

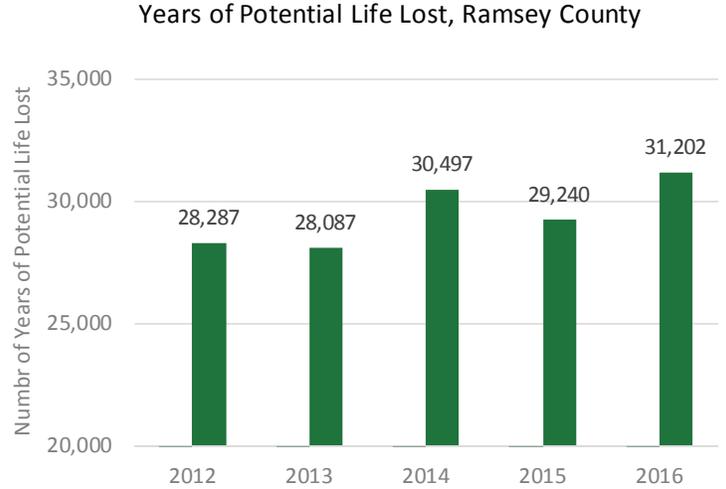
<sup>2</sup> Minnesota County Health Tables. Minnesota Department of Health. <http://www.health.state.mn.us/divs/chs/genstats/countytables/index.htm>. Accessed August 2018.

<sup>3</sup> Toich L. Racial disparities in premature death rate discovered. The American Journal of Pharmacy Benefits. 2017. <http://www.ajpb.com/news/racial-disparities-in-premature-death-rate-discovered>. Published February 17, 2017. Accessed August 2018.

<sup>4</sup> Cheng E, Kindig D. Disparities in premature mortality between high- and low-income US counties. National Center for Biotechnology Information. 2012; 9: E75. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3402341/>. Published March 22, 2012. Accessed August 2018.



\*Number of deaths to residents under age 75 per 100,000 persons  
Source: Minnesota Department of Health. County Health.<sup>5</sup>



Source: Minnesota Department of Health. Minnesota Vital.<sup>6</sup>

### All Deaths Compared to Premature Deaths (before age 75) Ranked by Numbers and Rates, Ramsey County, 2012-2016

Cause	All Deaths			Premature Deaths		
	Rank	Number	Rate per 100,000	Rank	Number	Rate per 100,000
Cancer	1	4,434	115	1	2,347	78
Heart Disease	2	3,350	111	2	1,054	36
Unintentional Injury	3	1,197	42	3	709	26
Chronic Lower Respiratory Disease	4	1,038	37	4	363	12
Suicide	5	306	11	5	289	11
Stroke	6	1,169	40	6	279	10
Diabetes	7	586	21	7	276	10
Cirrhosis	8	310	11	8	271	9
Nephritis	9	348	12	9	114	4
Pneumonia & Influenza	10	294	10	10	94	3

Source: Minnesota Department of Health. County Health Tables.<sup>5</sup>

<sup>5</sup> Minnesota Department of Health. County Health Tables. <http://www.health.state.mn.us/divs/chs/genstats/countytables/index.htm>. Accessed August 2018.

<sup>6</sup> Minnesota Department of Health. Minnesota Vital Statistics. <https://mhsq.web.health.state.mn.us/frontPage.jsp>. Accessed August 2018.

# Overall Health Status - Adult

## 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.<sup>1</sup> 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.<sup>2</sup> In 2016, 87.8 percent of Minnesota adults self-reported that their health was good or better.<sup>3</sup>

## BENCHMARK INDICATOR

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

U.S. Target: 79.8 percent.<sup>4</sup>

## 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.<sup>2</sup>

## 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 IS DOING

text

- 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.

<sup>1</sup> 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.

<sup>2</sup> 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](https://www.ramseycounty.us/sites/default/files/Open%20Government/Public%20Health%20Data/ramsey_county_metro_SHAPE_2014_survey.pdf). Accessed August 15, 2017.

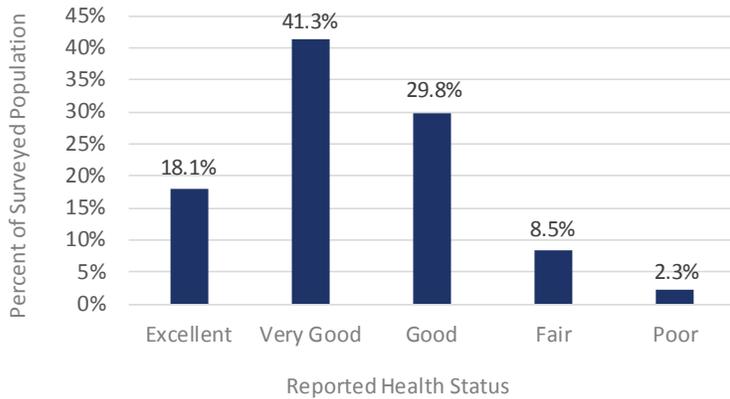
<sup>3</sup> Behavioral Risk Factor Surveillance System. Centers for Disease Control and Prevention. <https://www.cdc.gov/brfss/brfssprevalence/index.html>. Accessed March 2018.

<sup>4</sup> 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.

## WHAT RAMSEY COUNTY IS DOING

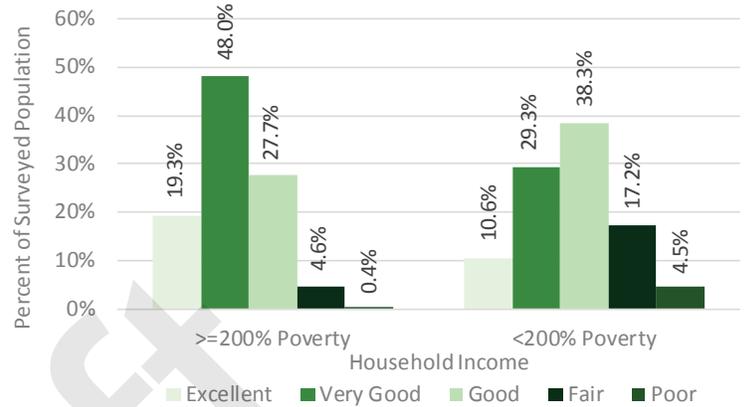
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### Health Status among Adults 25+ Years, Ramsey County 2014



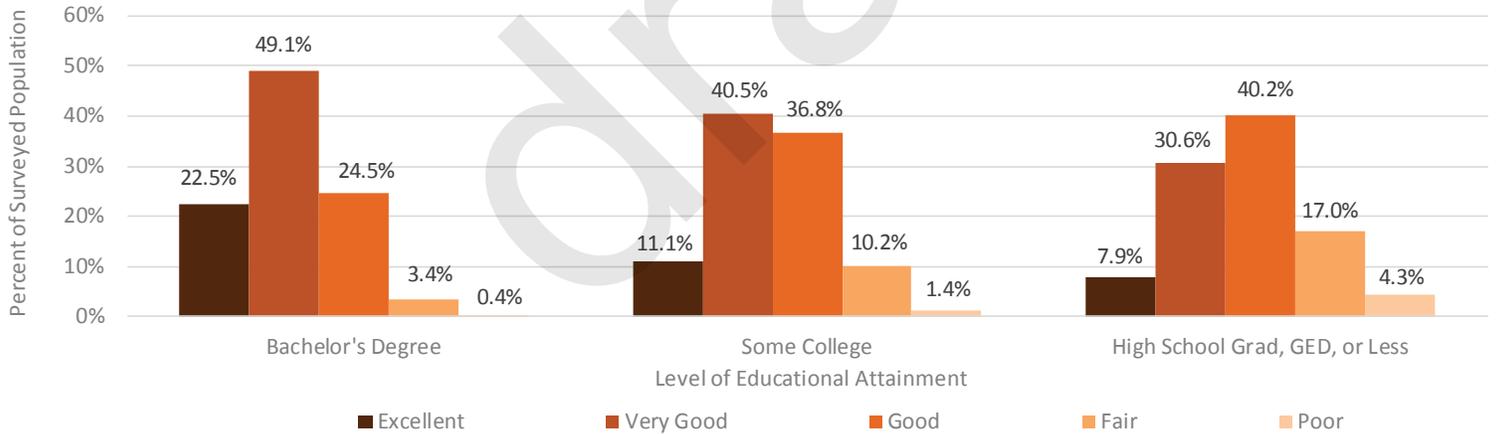
Source: Saint Paul – Ramsey County Public Health. Metro SHAPE.

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



Source: Metro Public Health Analyst Network.<sup>5</sup>

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



Source: Metro Public Health Analyst Network.<sup>5</sup>

<sup>5</sup> 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.<sup>1,2</sup> 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.<sup>3</sup> 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.<sup>4</sup>

## 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.

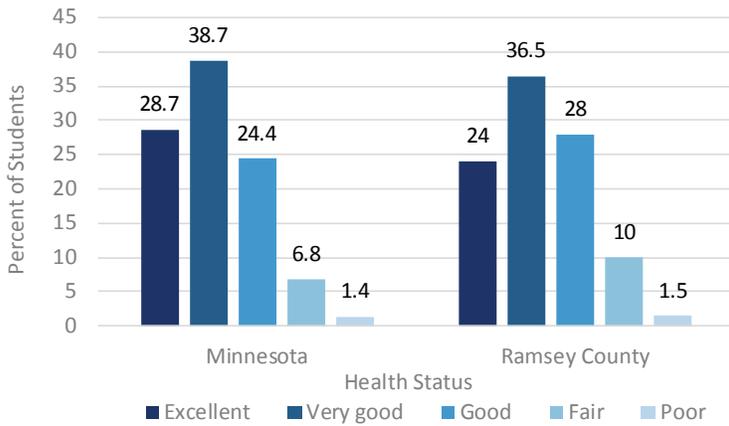
<sup>1</sup> 2016 Minnesota Student Survey Statewide Tables. Minnesota Department of Education. <http://education.state.mn.us/mdeprod/groups/communications/documents/basic/bwrl/mdu5/~edisp/mde059325.pdf>. Accessed March 2018.

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

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

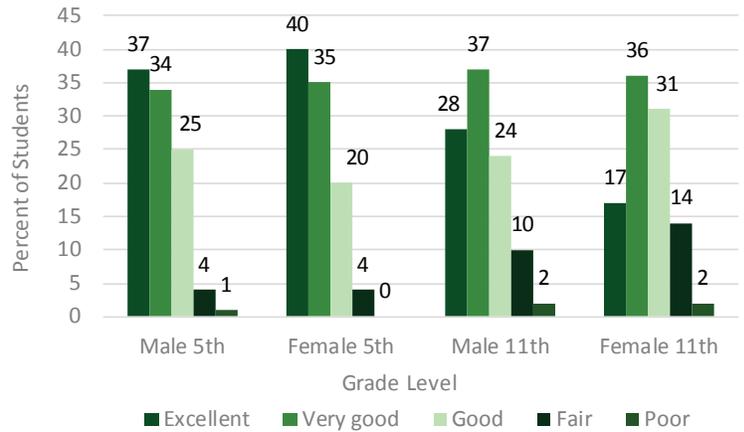
<sup>4</sup> Minnesota Student Survey. Saint Paul – Ramsey County Public Health data set.

Self-Reported Health Status Among 9th Graders, 2016



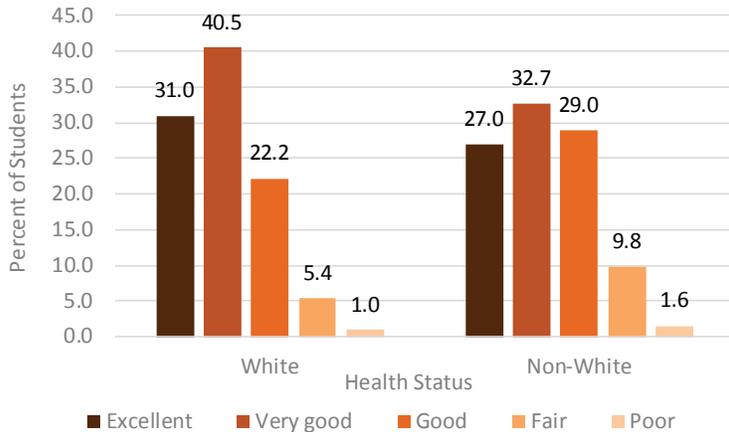
Source: Minnesota Department of Health.<sup>5</sup>

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



Source: Minnesota Department of Health.<sup>5</sup>

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



Source: Minnesota Department of Health.<sup>5</sup>

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

# Sufficient Sleep Among Adults

## 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.<sup>1</sup> 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.<sup>2</sup> 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.<sup>3</sup>

## 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.<sup>4</sup> 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.<sup>5</sup> 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.<sup>5</sup>

## 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.<sup>6</sup>

- 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.

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

<sup>2</sup> Short Sleep Duration among U.S. Adults. Centers for Disease Control and Prevention. [https://www.cdc.gov/sleep/data\\_statistics.html](https://www.cdc.gov/sleep/data_statistics.html). Accessed July 22, 2017.

<sup>3</sup> 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](http://www.huffingtonpost.com/2014/10/08/sleep-times-america-counties_n_5942296.html). Accessed July 22, 2017

<sup>4</sup> 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.

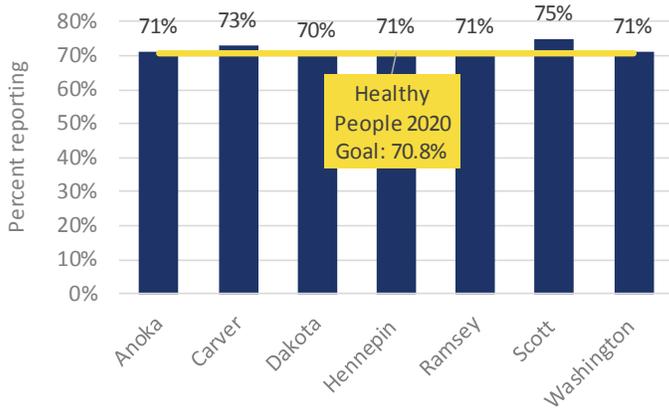
<sup>5</sup> Strickland, A. Women in midlife aren't sleeping enough, study says. CNN Web site. <http://www.cnn.com/2017/09/07/health/women-sleep-menopause/index.html>. Accessed September 14, 2017.

<sup>6</sup> 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 IS DOING

text

Adults Who Sleep 7 Hours or More Nightly on Average,  
7-County Metro, 2016



Source: County Health Rankings and Roadmaps. County Health Rankings 2017.<sup>7</sup>

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<sup>7</sup> 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.

# Sufficient Sleep Among Youth

## 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.<sup>1</sup> From the time they hit puberty until the age of 22, adolescents need about nine hours of sleep a night to function optimally.<sup>2</sup>

## 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.<sup>3</sup>

## RISK FACTORS

Screen time before bed increases risk of short sleep duration, long sleep onset latency and increased sleep deficiency.<sup>4</sup> 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 IS DOING

text

- 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.

<sup>1</sup> 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.

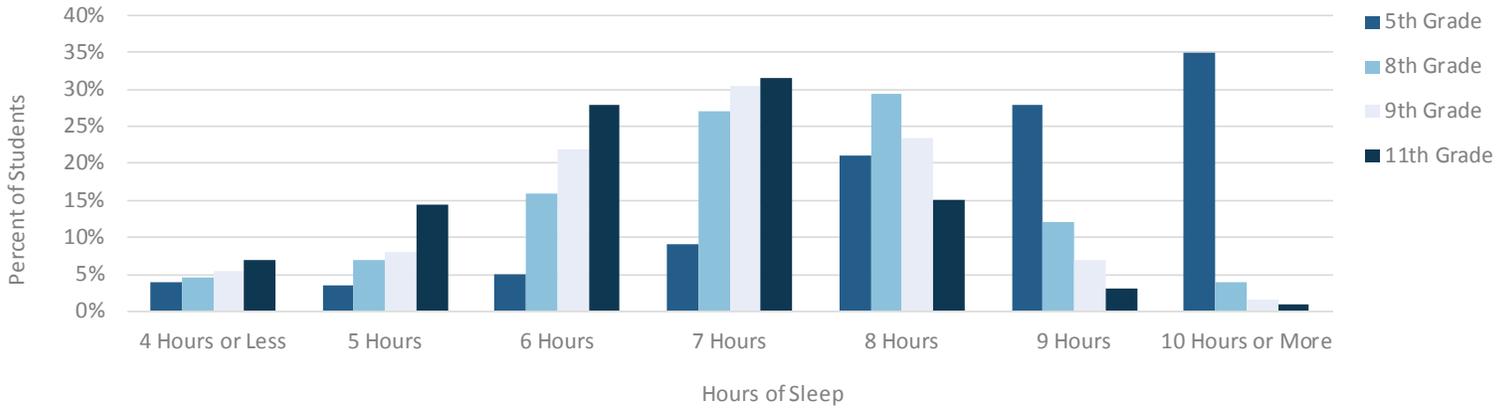
<sup>2</sup> Garey, J., How to Help Teenagers Get More Sleep. Child Mind Institute. 2012. <https://childmind.org/article/help-teenagers-get-sleep/>. Accessed July 24, 2017.

<sup>3</sup> 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

<sup>4</sup> 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.

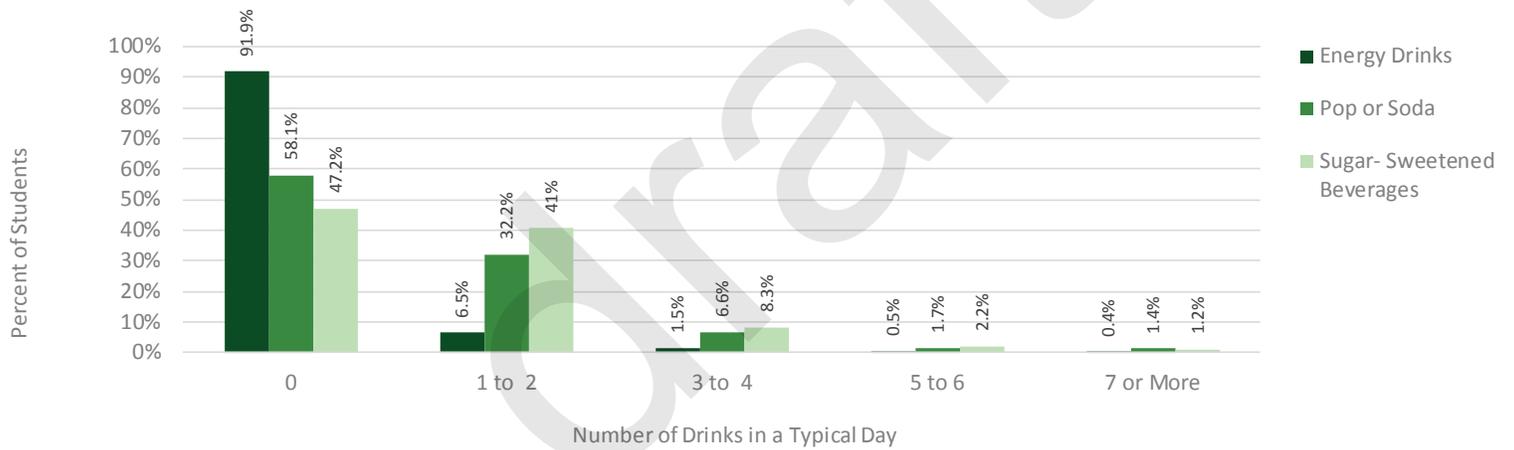
# Sufficient Sleep Among Youth

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



Source: Minnesota Student Survey.<sup>5</sup>

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



Source: Minnesota Student Survey.<sup>6</sup>

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

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

# 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.<sup>1</sup>

## 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.<sup>2</sup> 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.<sup>3</sup>

## 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 percent<sup>4</sup>

## 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. 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.<sup>6</sup>

## RISK FACTORS

Individuals who are unemployed or experience job insecurity may face health risks such as increased blood pressure and stress.<sup>7</sup> 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.<sup>2</sup> 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.<sup>8</sup>

- 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.

<sup>1</sup> 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.

<sup>2</sup> 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.

<sup>3</sup> 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.

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

<sup>5</sup> 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.

<sup>6</sup> 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.

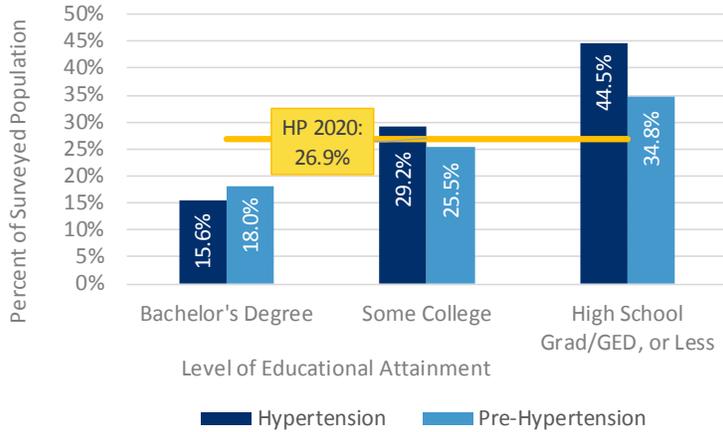
<sup>7</sup> Demographics Affecting Health – Ramsey County Profile. (2012) Culture Care Connection. <http://www.culturecareconnection.org/documents/RamseyCounty.pdf>. Accessed January 2018.

<sup>8</sup> High Blood Pressure Fact Sheet (2016) Center for Disease Control and Prevention. [https://www.cdc.gov/dhdsp/data\\_statistics/fact\\_sheets/fs\\_bloodpressure.htm](https://www.cdc.gov/dhdsp/data_statistics/fact_sheets/fs_bloodpressure.htm). Accessed January 2018.

## WHAT RAMSEY COUNTY IS DOING

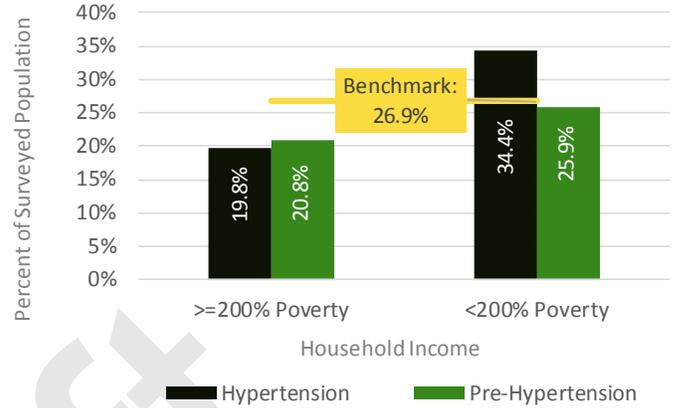
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Hypertension and Pre-Hypertension, Six County Metro, 2014



Source: Metro Public Health Analyst Network. Metro SHAPE Six County Data Book.<sup>9</sup>

Hypertension and Pre-Hypertension Diagnosis, Six County Metro, 2014



Source: Metro Public Health Analyst Network. Metro SHAPE Six County Data Book 2014.<sup>10</sup>

draft

<sup>9</sup> 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.

<sup>10</sup> 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.

# Cholesterol

## 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.<sup>1</sup>

## 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.<sup>2</sup> 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.<sup>3</sup>

## 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.<sup>4</sup>

## DISPARITIES

Nationally, higher rates of high cholesterol are seen among Hispanic males and non-Hispanic white women.<sup>5</sup> 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.<sup>6</sup>

## 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

text

- 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.

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

<sup>2</sup>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.

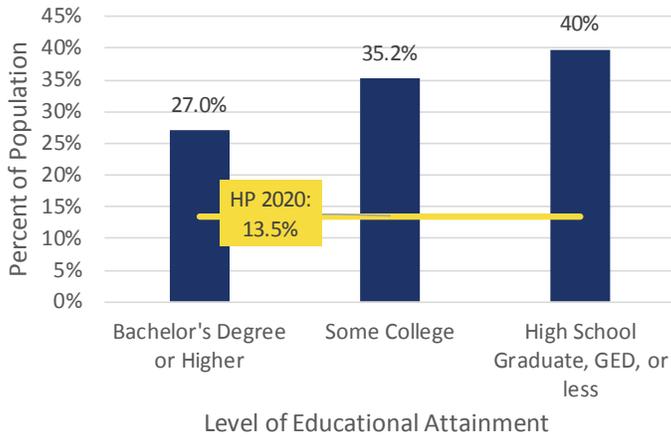
<sup>3</sup>Metro Public Health Analyst Network. Metro SHAPE Six County Data Book. 2014. <https://www.ramseycounty.us/your-government/open-government/research-data/public-health-data>. Accessed January 2018.

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

<sup>5</sup>Family 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.

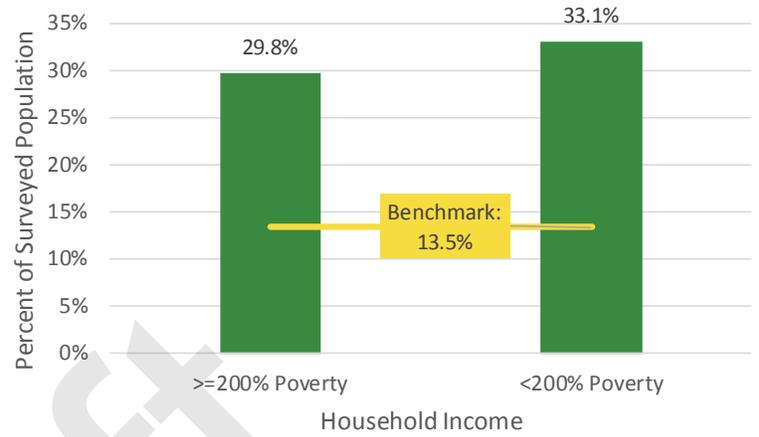
<sup>6</sup>Metro Public Health Analyst Network. Metro SHAPE Six County Data Book. 2014. <https://www.ramseycounty.us/your-government/open-government/research-data/public-health-data>. Accessed January 2018.

High Cholesterol Diagnosis, Six-County Metro, 2014



Source: Metro Public Health Analyst Network.<sup>8</sup>

High Cholesterol Diagnosis, Six-County Metro, 2014



Source: Metro Public Health Analyst Network.<sup>9</sup>

draft

<sup>8</sup>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 July 17, 2017.

<sup>9</sup> 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.

# 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.<sup>1</sup> 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.<sup>2</sup>

## 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.<sup>3</sup> In 2014, 7.7 percent of Ramsey County adults reported a diagnosis of diabetes. Another 9.8 percent reporting a diagnosis of prediabetes.<sup>4</sup> 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.<sup>5</sup>

## 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.<sup>3</sup> National data show that African-Americans are about twice as likely to be diagnosed with diabetes as non-Hispanic whites.<sup>6</sup>

## 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.<sup>7</sup> 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.

<sup>1</sup> 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.

<sup>2</sup> 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>

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

<sup>4</sup> 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.

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

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

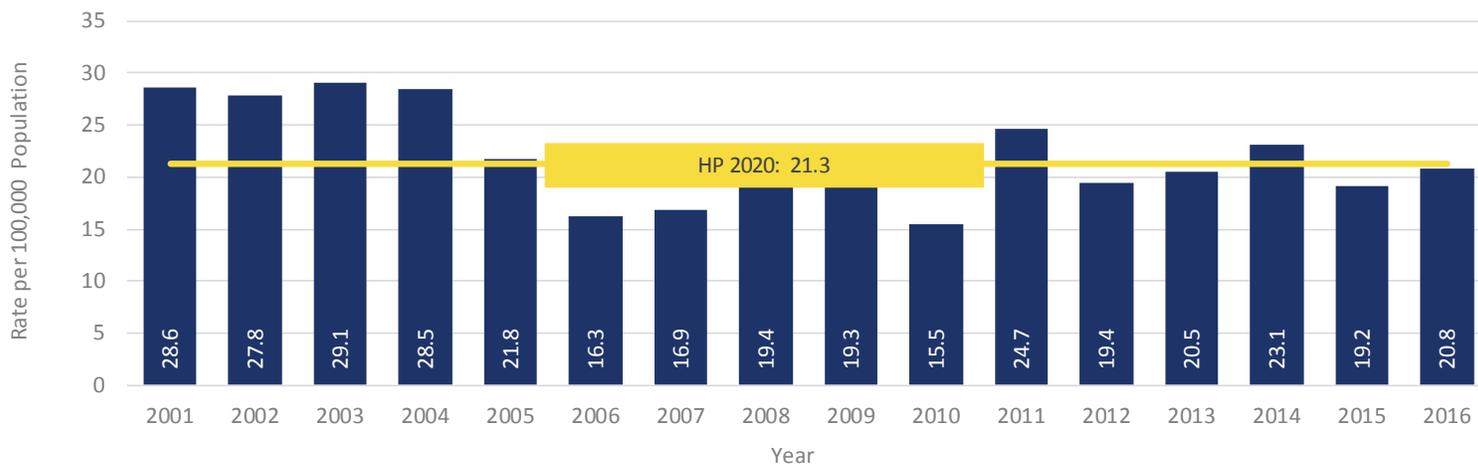
<sup>7</sup> Minnesota Department of Health, Office of Statewide Health Improvement Initiatives. (2011). Chronic diseases and their risk factors in Minnesota. Retrieved from: <http://www.health.state.mn.us/divs/hpcd/do/HPCDtrendreport2011.pdf>.

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

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

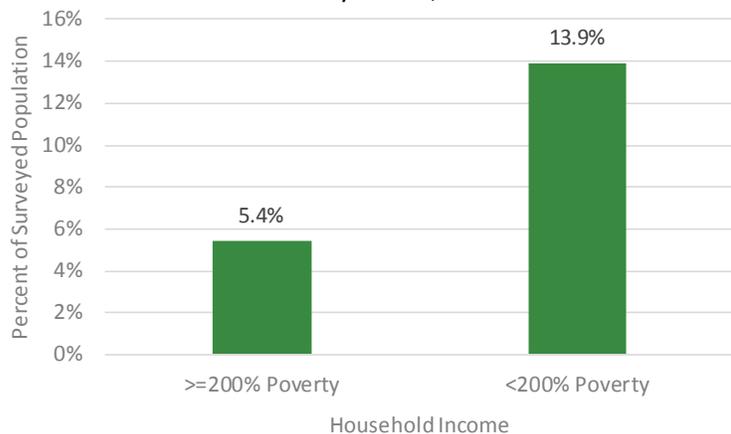
Saint Paul – Ramsey County Public Health addresses diabetes in adults through chronic disease prevention programs. Through a grant from Minnesota Department of Health’s Statewide Health Improvement Partnership, Ramsey County provides better access to healthy foods, physical activity and diabetes prevention 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.

Diabetes Mortality Rate, Ramsey County



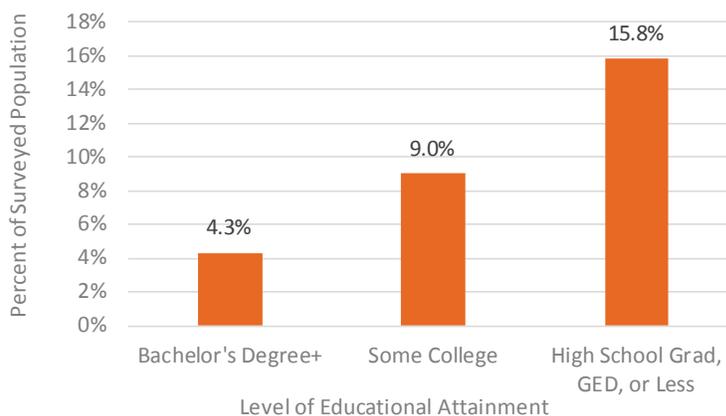
Source: Death Statistics. Minnesota Department of Health Web site.<sup>9</sup>

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



Source: Metro Public Health Analyst Network. Metro SHAPE Six County Data.<sup>10</sup>

Diabetes Diagnosis by Education, Six County Metro, 2014



Source: Metro Public Health Analyst Network. Metro SHAPE Six County Data.<sup>10</sup>

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

<sup>10</sup> 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.<sup>1</sup> 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.<sup>2</sup>

## 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.<sup>3</sup>

## 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.<sup>4</sup> 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.<sup>5</sup>

## 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.<sup>1</sup>

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

Saint Paul – Ramsey County Public Health addresses diabetes in youth through chronic disease prevention programs. Through a grant from Minnesota Department of Health's Statewide Health Improvement Partnership, Ramsey County is becoming a breastfeeding friendly health department. Infants who are breastfed have reduced risk of obesity and

## 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.

<sup>1</sup> 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.

<sup>2</sup> 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.

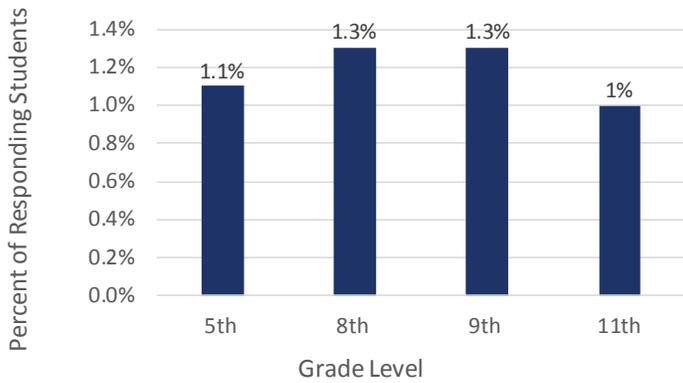
<sup>3</sup> Minnesota Department of Health. Minnesota Student Survey 2013. <http://www.health.state.mn.us/divs/chs/mss/>. Accessed April 2018.

<sup>4</sup> 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.

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

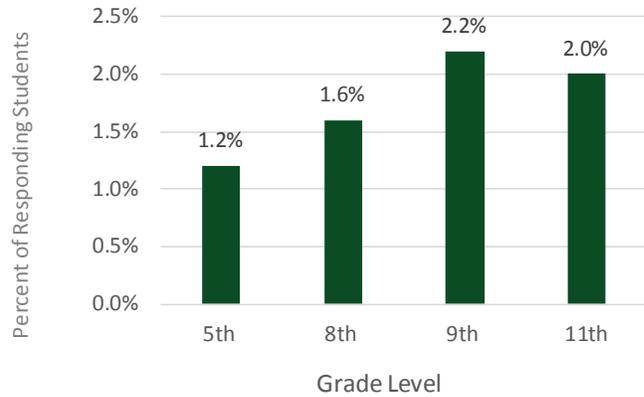
diabetes in children. Ramsey County has also created Baby Cafés, which provide a free space for pregnant and post-partum women and their support systems. Baby Cafe is free, drop-in service to receive breastfeeding support and advice from a culturally appropriate lactation specialist. Baby Café increases access to breastfeeding resources specifically to those with language, culture and economic barriers.

### 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.

# 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.<sup>1</sup>

## 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.<sup>2</sup> 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.<sup>3</sup>

## 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.<sup>4</sup>

## 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:<sup>1</sup> 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.

- 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.

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

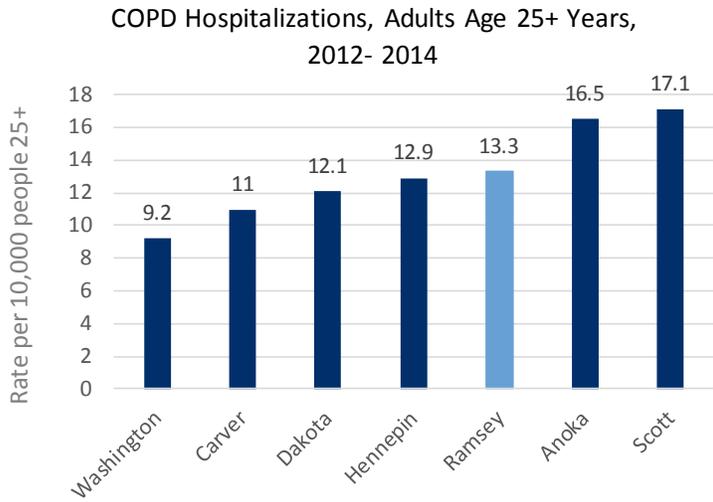
<sup>2</sup> CHRONIC CONDITIONS IN MINNESOTA: New Estimates of Prevalence, Cost and Geographic Variation for Insured Minnesotans, 2012. Minnesota Department of Health Web site. [http://www.health.state.mn.us/divs/hpsc/hep/publications/costs/20160127\\_chronicconditions.pdf](http://www.health.state.mn.us/divs/hpsc/hep/publications/costs/20160127_chronicconditions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

<sup>3</sup> 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.

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

## WHAT RAMSEY COUNTY IS DOING

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Source: MN Public Health Data Access - COPD Hospitalizations.<sup>5</sup>

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<sup>5</sup> 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.

## 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.<sup>1</sup> “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.<sup>2</sup> 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.<sup>3</sup> 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.<sup>4</sup> 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.<sup>2</sup>

## BENCHMARK INDICATOR

HP 2020: Reduce hospitalizations for asthma.

U.S. Target: 8.7 per 10,000 population.<sup>5</sup>

## DISPARITIES

Asthma disproportionately impacts children, females, African-Americans, and people with low incomes.<sup>6</sup> 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.<sup>6</sup>

## 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.<sup>7</sup> 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.

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

<sup>2</sup> Minnesota Department of Health. Minnesota Public Health Data Access. [https://data.web.health.state.mn.us/web/mndata/asthma\\_query](https://data.web.health.state.mn.us/web/mndata/asthma_query). Accessed June 1, 2018.

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

<sup>4</sup> Minnesota Hospital Association. Saint Paul – Ramsey County Public Health data set.

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

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

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

quality.<sup>8</sup> 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.

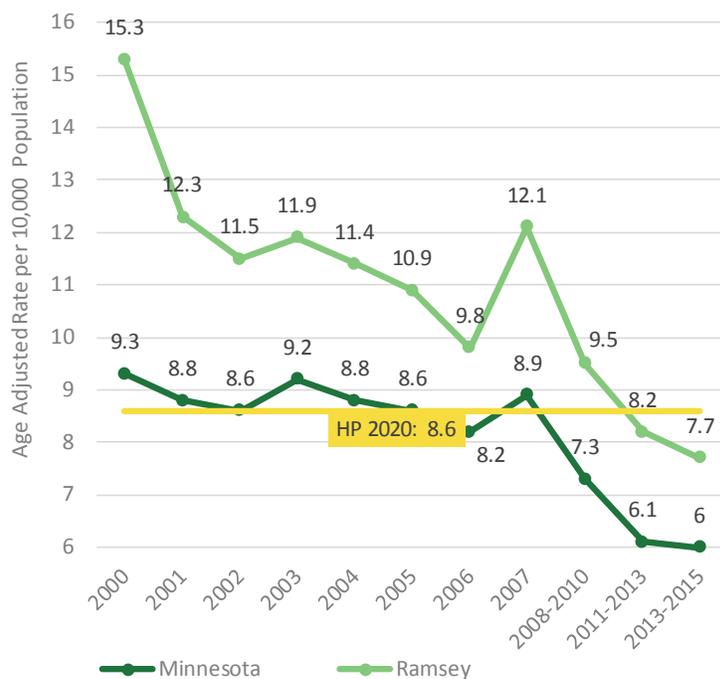
The Healthy Homes program targets areas in the county that have aging housing stock, have lower income residents, and have residents who are at highest risk for asthma related hospitalizations. In 6-month follow up meetings, families enrolled in the program report less frequent use of prednisone or nebulizers 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.<sup>9</sup>

<sup>8</sup> 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.

<sup>9</sup> Source: MDH MN Public Health Data Access. [https://data.web.health.state.mn.us/web/mndata/asthma\\_hosp](https://data.web.health.state.mn.us/web/mndata/asthma_hosp). Accessed June 1, 2018.

# Alzheimer's Disease

## 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.<sup>1</sup>

## 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.<sup>2</sup>

## 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 percent<sup>3</sup>

## DISPARITIES

More women develop Alzheimer's disease and other dementias. They make up almost two-thirds of Americans with Alzheimer's disease.<sup>1</sup> 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.<sup>4</sup> 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.<sup>5</sup>

## 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.<sup>6</sup> 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.<sup>7</sup>

## 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.

<sup>1</sup> 2017 Alzheimer's Disease Facts and Figures. Alzheimer's Association Web site. [https://www.alz.org/documents\\_custom/2017-facts-and-figures.pdf](https://www.alz.org/documents_custom/2017-facts-and-figures.pdf). Accessed February 2018.

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

<sup>3</sup> 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.

<sup>4</sup> 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.

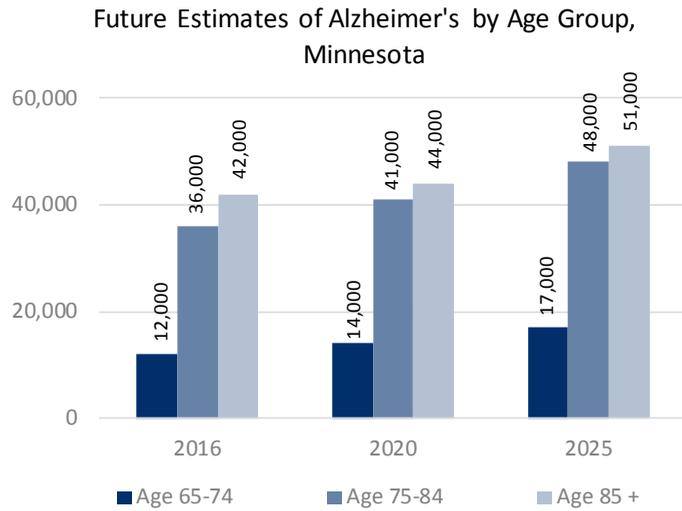
<sup>5</sup> Native Americans and Dementia: Dealing with Emotional Issues Among Caregivers. Wyoming Geriatric Education Center Web Site. ???

<sup>6</sup> 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.

<sup>7</sup> 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

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Source: Alzheimer's Association, 2017.<sup>8</sup>

<sup>8</sup> Alzheimer's Association. (2017). Alzheimer's Statistics Minnesota. [http://www.alz.org/documents\\_custom/facts\\_2016/statesheet\\_minnesota.pdf](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.<sup>1</sup>

## HOW WE ARE DOING

In Minnesota, 22 percent of adults have arthritis: 25 percent of women and 18 percent of men.<sup>1</sup> 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.<sup>2</sup>

## 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.<sup>1</sup> Adults 18 and older who are overweight or obese report doctor-diagnosed arthritis more often than adults with a lower body mass index (BMI).<sup>3</sup> 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).<sup>4</sup>

## 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.

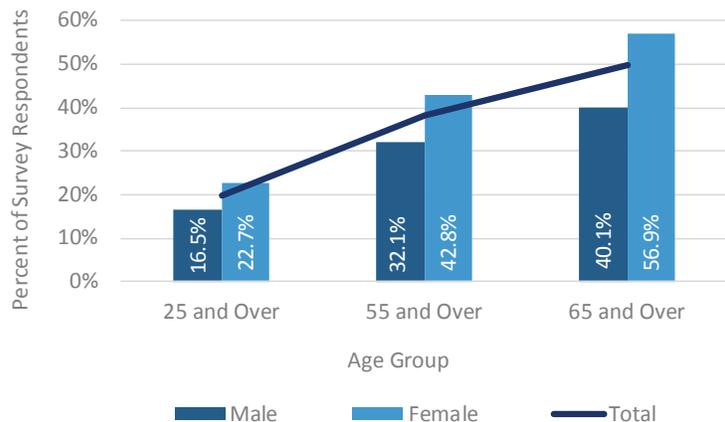
<sup>1</sup> Arthritis. Centers for Disease Control and Prevention. <https://www.cdc.gov/arthritis/basics/index.html>. Accessed August 20, 2017.

<sup>2</sup> 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.

<sup>3</sup> Arthritis-Related Statistics. Centers for Disease Control and Prevention. [https://www.cdc.gov/arthritis/data\\_statistics/arthritis-related-stats.htm](https://www.cdc.gov/arthritis/data_statistics/arthritis-related-stats.htm). Accessed November 3, 2017.

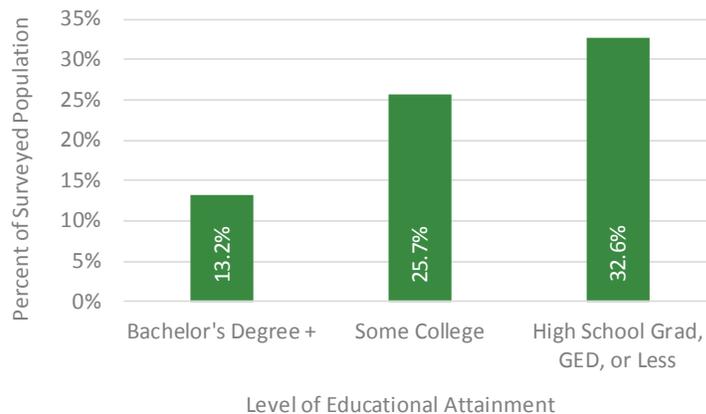
<sup>4</sup> Metro Public Health Analyst Network. Metro SHAPE Six County Data Book 2014. <https://www.ramseycounty.us/your-government/open-government/research-data/public-health-data>. Accessed April 2018.

### Individuals With Arthritis, Ramsey County, 2014



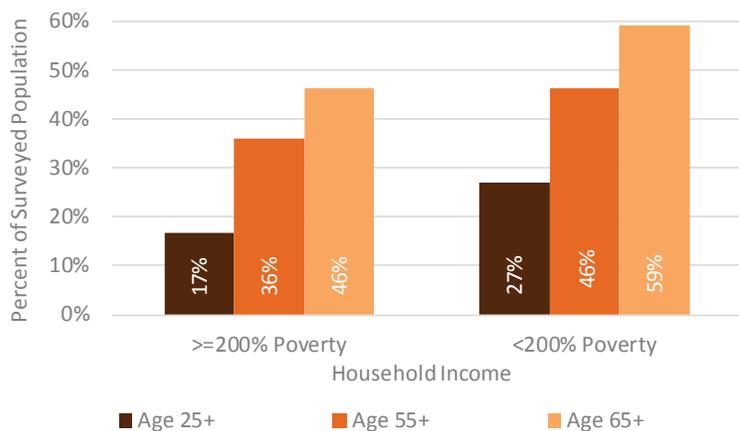
Source: Metro SHAPE Ramsey County Data Book 2014.<sup>5</sup>

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



Source: Metro SHAPE Six County Data Book 2014.<sup>6</sup>

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



Source: Metro SHAPE Six County Data Book 2014.<sup>6</sup>

<sup>5</sup> 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.

<sup>6</sup> 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.

# Chronic Kidney Disease

## 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.<sup>1</sup> Nationally, about half of all cases of kidney disease are diagnosed in stages three or four, the more serious stages.<sup>2</sup>

## HOW ARE WE DOING

About 14 percent, or one in seven Americans are estimated to have chronic kidney disease.<sup>1</sup> In 2012, the Minnesota rate for women was 12.9 compared to 13.1 for men.<sup>3</sup> 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.<sup>4</sup> 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.<sup>3</sup> 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.<sup>5</sup>

## BENCHMARK INDICATOR

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

U.S. Target: 13.3 percent.<sup>6</sup>

## 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.<sup>7</sup> 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.<sup>8</sup>

## WHAT RAMSEY COUNTY IS DOING

text

- 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.<sup>4</sup>

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

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

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

<sup>4</sup>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.

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

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

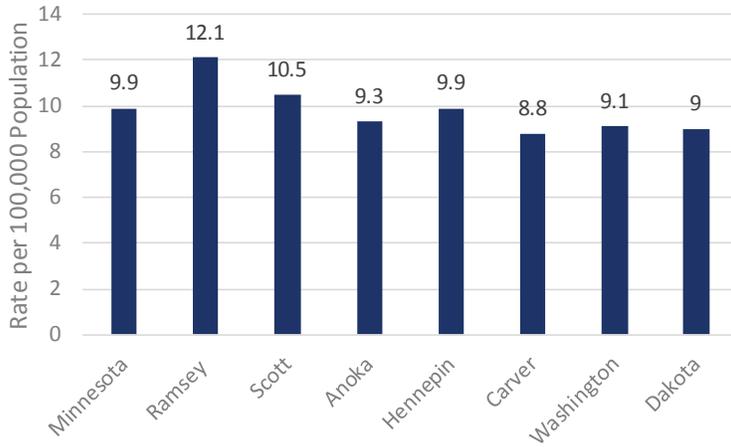
<sup>7</sup>Chronic Kidney Disease. Healthy People 2020 Web site. <https://www.healthypeople.gov/2020/data-search/Search-the-Data#objid=4076>. Accessed August 28, 2017.

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

## WHAT RAMSEY COUNTY IS DOING

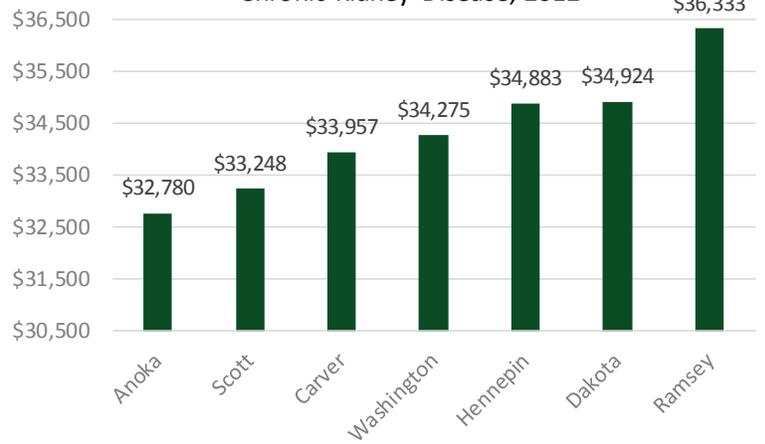
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Kidney Disease Deaths, 2012 - 2016



Source: Minnesota Department of Health Web site.<sup>9</sup>

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



Source: Chronic Conditions in Minnesota <sup>10</sup>

<sup>9</sup>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.

<sup>10</sup>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](http://www.health.state.mn.us/divs/hpsc/hep/publications/costs/20160127_chronicconditions.pdf). Accessed August 30, 2017

# Heart Disease and Stroke

## DESCRIPTION

Worldwide, an estimated 17 million people die of cardiovascular diseases (CVDs), particularly heart attacks and strokes, every year.<sup>1</sup> 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.<sup>2</sup>

## 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.<sup>3</sup> 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.<sup>4</sup> 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.<sup>5</sup>

## 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.<sup>6</sup>

## DISPARITIES

Men are generally at greater risk of heart disease; however, women's risk increases after menopause.<sup>7</sup> 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.<sup>3</sup>

## 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.<sup>8</sup>

(continued on back)

## 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.

<sup>1</sup> The Atlas of Heart Disease and Stroke. World Health Organization Web site. [http://www.who.int/cardiovascular\\_diseases/resources/atlas/en/](http://www.who.int/cardiovascular_diseases/resources/atlas/en/). Accessed February 2018.

<sup>2</sup> 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.

<sup>3</sup> 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.

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

<sup>5</sup> 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.

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

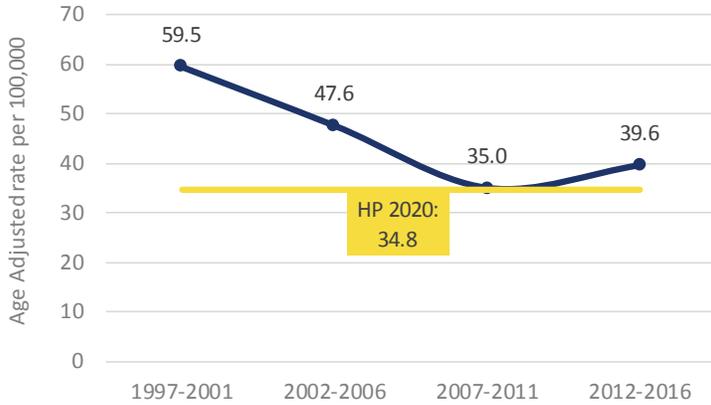
<sup>7</sup> Heart Disease. Mayo Clinic Web site. <http://www.mayoclinic.org/diseases-conditions/heart-disease/symptoms-causes/dxc-20341558>. Accessed February 2018.

<sup>8</sup> 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](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

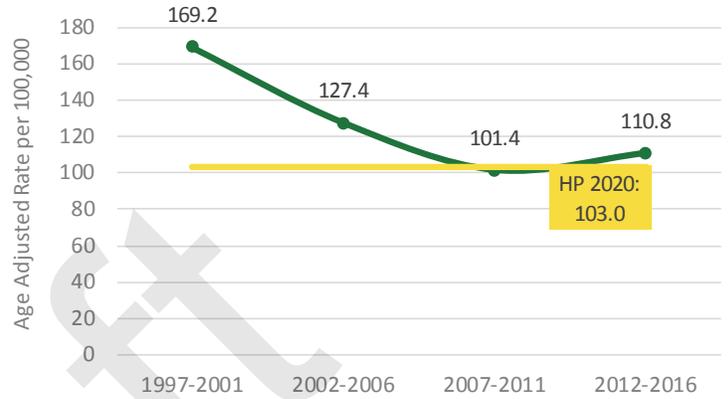
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### Rate of Stroke Deaths, Ramsey County



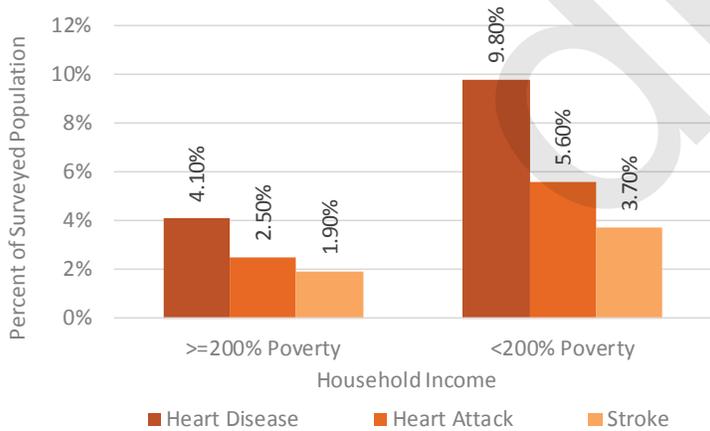
Source: Minnesota Department of Health.<sup>9</sup>

### Rate of Heart Disease Deaths, Ramsey County



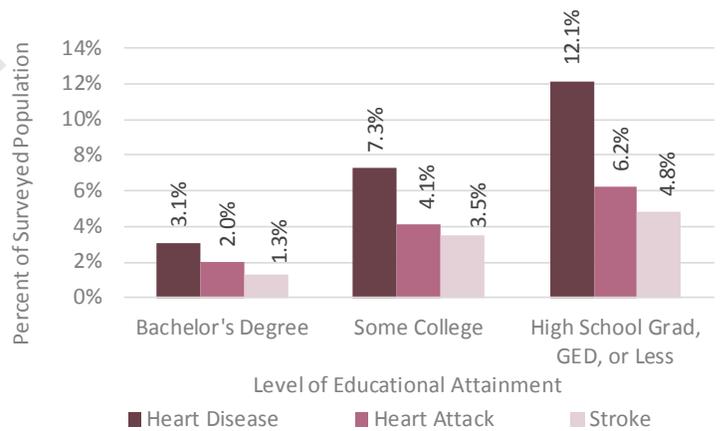
Source: Minnesota Department of Health.<sup>9</sup>

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



Source: Metro Public Health Analyst Network. Metro SHAPE.<sup>10</sup>

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



Source: Metro Public Health Analyst Network. Metro SHAPE.<sup>10</sup>

<sup>9</sup> 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.

<sup>10</sup> 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

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.<sup>1</sup>

## 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.<sup>1</sup> In Ramsey County between 2010 and 2014, there were 12,663 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.<sup>2</sup> In 2016, there were 9,845 Minnesota residents and 877 Ramsey County residents who lost their life to cancer, the leading cause of death.<sup>3</sup> 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.<sup>4</sup>

## 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.<sup>1</sup>
- 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.<sup>2</sup>
- 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.<sup>3</sup>
- 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.<sup>4</sup>
- Between 2008 and 2012 in Ramsey County, there were 195 new colon and rectum cancer cases, and 68 deaths each year.<sup>4</sup>

## 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.<sup>1</sup>

## 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.

<sup>1</sup> 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.

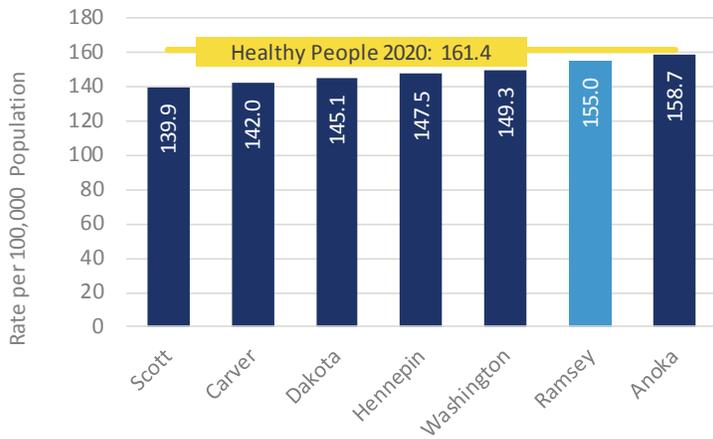
<sup>2</sup> Minnesota Cancer Facts & figures 2015. Minnesota Department of Health Web Site. <http://www.health.state.mn.us/divs/healthimprovement/data/reports/cancerfactsfigures.html>. Accessed October 3, 2017.

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

<sup>4</sup> 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.

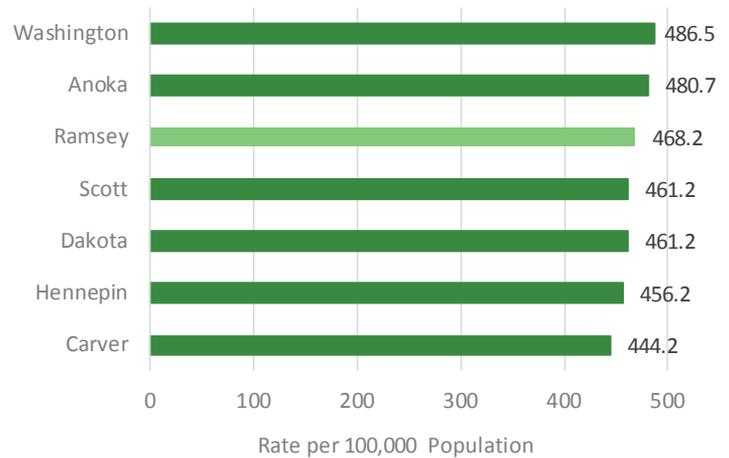
preventing and detecting cancer including screening for cervical cancer and breast cancer, and promoting the use of condoms which may help to prevent spread of certain STIs which may lead to cancer. Saint Paul – Ramsey County Public Health maintains a disease surveillance role, monitoring cancer rates 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



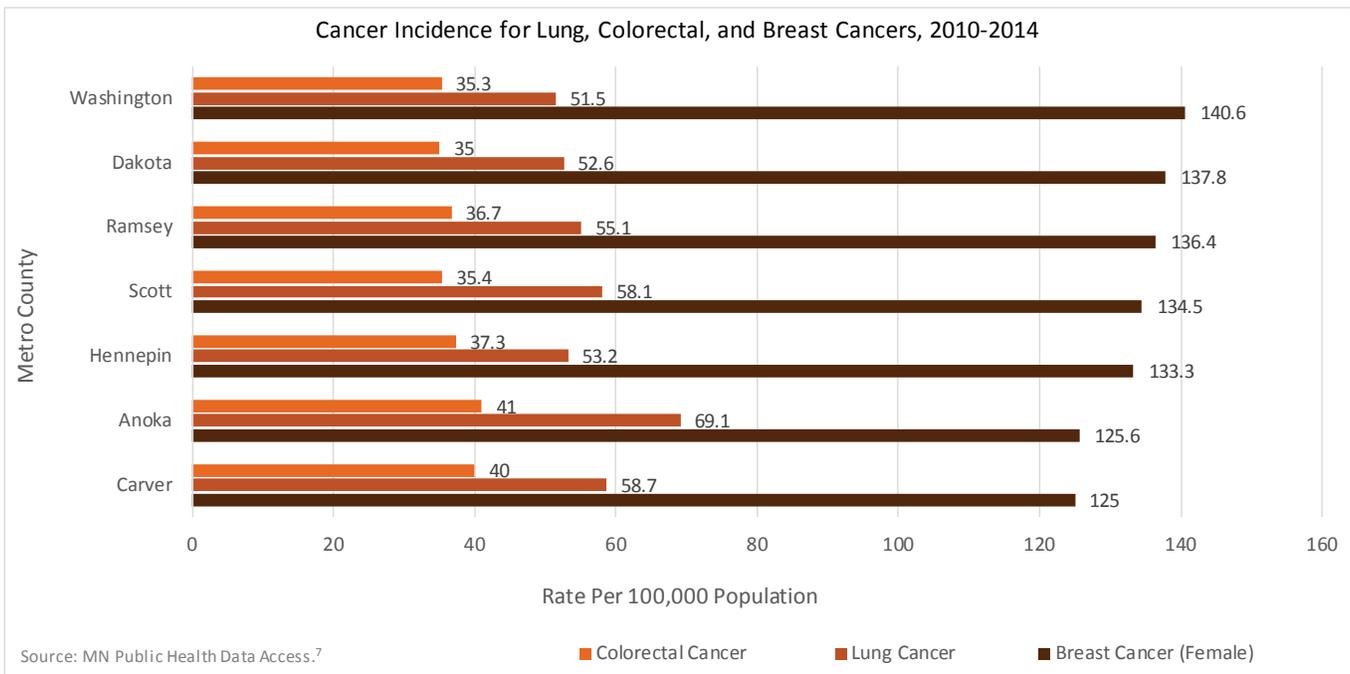
Source: Minnesota County Health Tables.<sup>5</sup>

Cancer Incidence, 2009-2013



Source: MN Public Health Data Access. Minnesota Department of Health Web Site.<sup>6</sup>

Cancer Incidence for Lung, Colorectal, and Breast Cancers, 2010-2014



Source: MN Public Health Data Access.<sup>7</sup>

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

<sup>6</sup> 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.

<sup>7</sup> 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.

# 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.<sup>1</sup>

## 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.<sup>2</sup> 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.<sup>3</sup> 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.<sup>4</sup> 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.<sup>5</sup>

## 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.<sup>6</sup>

## 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.<sup>2</sup> In Ramsey County, adults with only high school education generally have lower fruit and vegetable consumption than those with college education.<sup>4</sup> Adults with incomes below 200 percent of the federal poverty level also report eating less fruits and vegetables.<sup>4</sup> 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.<sup>1</sup>

## 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.

<sup>1</sup> 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/](http://www.who.int/elena/titles/fruit_vegetables_ncds/en/). Accessed June 2018.

<sup>2</sup> 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>.

<sup>3</sup> 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.

<sup>4</sup> 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](https://www.ramseycounty.us/sites/default/files/Open%20Government/Public%20Health%20Data/ramsey_county_metro_SHAPE_2014_survey.pdf). Accessed June 2018.

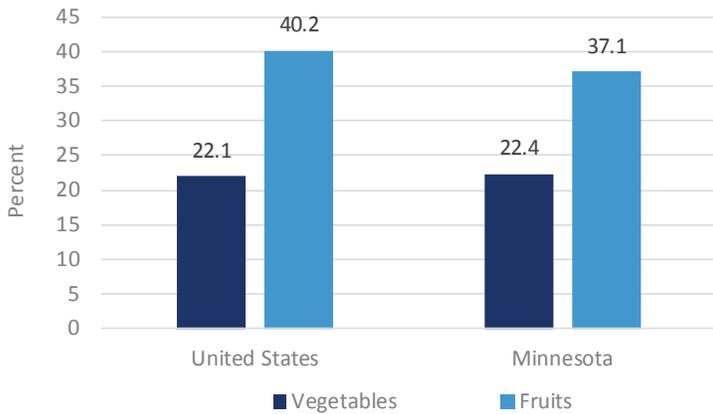
<sup>5</sup> Minnesota Student Survey. Saint Paul Ramsey County Public Health data set.

<sup>6</sup> 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

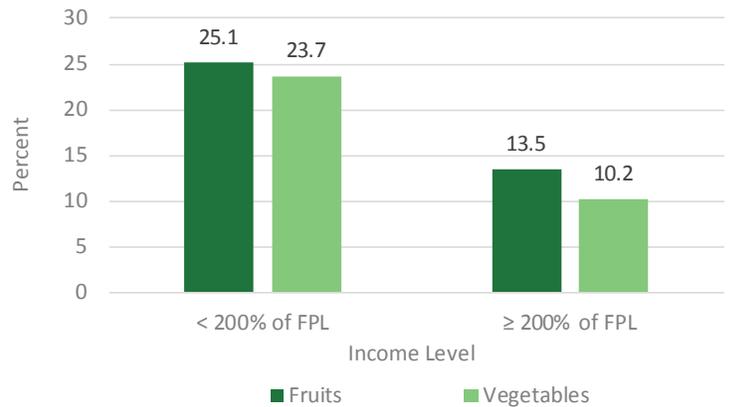
The Statewide Health Improvement Partnership (SHIP) work has become an integral part of Saint Paul- Ramsey County Public Health's efforts to help combat and prevent chronic disease among Ramsey County residents, including focusing on increasing fruit and vegetable consumption. Efforts include working 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



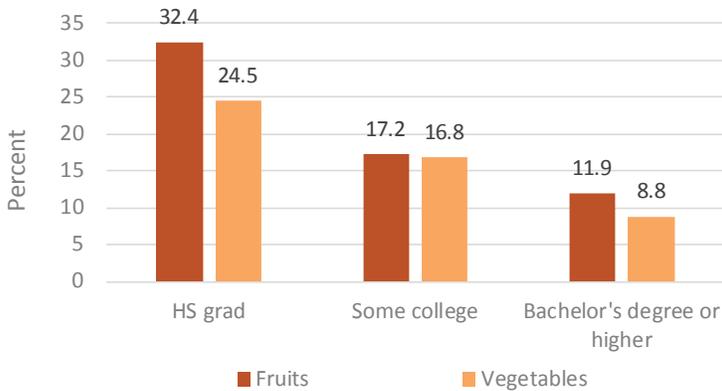
Source: Centers for Disease Control and Prevention.<sup>7</sup>

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



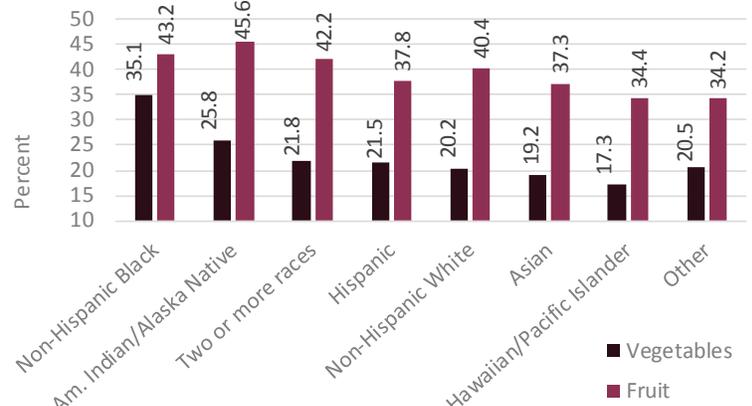
Source: Metro SHAPE Ramsey County Data Book 2014.<sup>8</sup>

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.<sup>9</sup>

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.<sup>10</sup>

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

<sup>8</sup> 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.

<sup>9</sup> 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.

<sup>10</sup> 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.

# 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.<sup>1</sup> 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.<sup>2</sup>

## 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.<sup>3</sup> 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.<sup>4</sup>

## BENCHMARK INDICATOR

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

U.S. Target: 32.6 percent<sup>5</sup>

## DISPARITIES

Racial/ethnic minorities are, in general, less likely than whites to meet physical activity recommendations.<sup>5</sup> 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.<sup>4</sup>

## 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.<sup>6</sup>

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

text

- 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.

<sup>1</sup>Physical Activity and Adults. World Health Organization. [http://who.int/dietphysicalactivity/factsheet\\_adults/en/](http://who.int/dietphysicalactivity/factsheet_adults/en/). Accessed May 2018.

<sup>2</sup>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.

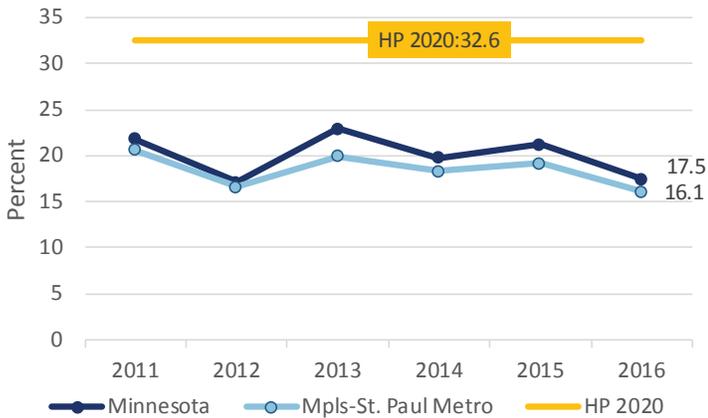
<sup>3</sup>BRFSS Prevalence & Trends Data. Centers for Disease Control and Prevention. <https://www.cdc.gov/brfss/brfssprevalence>. Accessed May 2018.

<sup>4</sup>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.

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

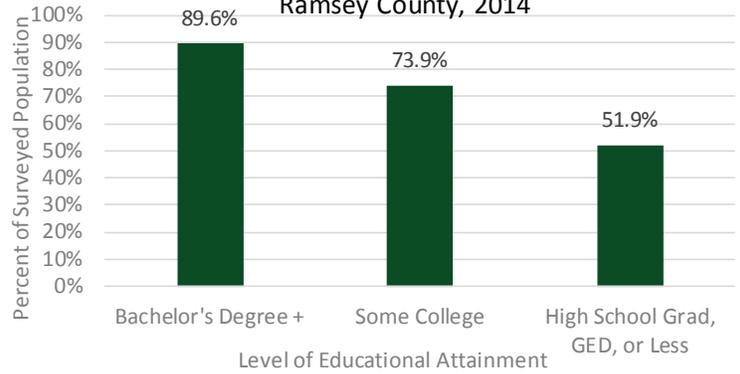
<sup>6</sup>Li K, Wen M. Racial and ethnic disparities in leisure-time physical activity in California: Patterns and mechanisms. *Race and Social Problems*. 2013; 5(3): 147–156.

### Adults Not Participating in Leisure Time Physical Activity



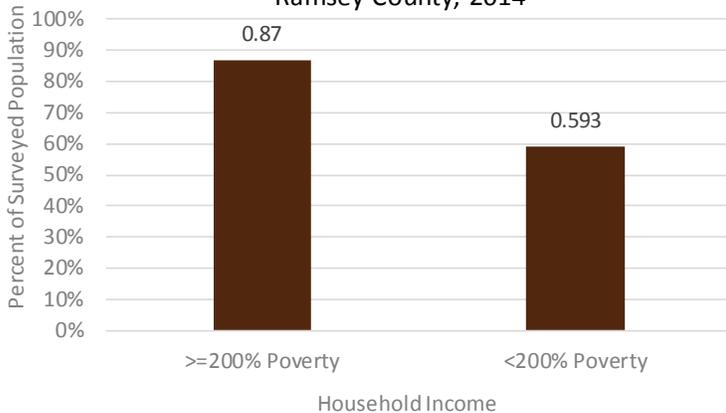
Source: Centers for Disease Control and Prevention, BRFSS<sup>7</sup>

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



Source: Saint Paul - Ramsey County. Metro SHAPE Ramsey County Data Book 2014.<sup>8</sup>

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



Source: Saint Paul - Ramsey County. Metro SHAPE Ramsey County Data Book 2014.<sup>9</sup>

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

<sup>8</sup>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.

<sup>9</sup>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 - Adolescents

## 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.<sup>1</sup>

## 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.<sup>2</sup> 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.<sup>3</sup>

## 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.<sup>4</sup>

## 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.<sup>5</sup>

- 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.

<sup>1</sup>Rasberry 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.

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

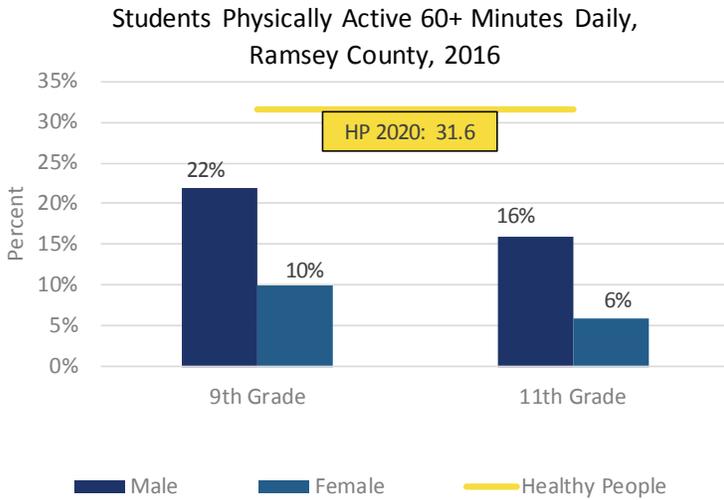
<sup>3</sup>Minnesota Department of Health. *Minnesota Student Survey 2016*. <http://www.health.state.mn.us/divs/chs/mss/>. Accessed May 2018.

<sup>4</sup>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.

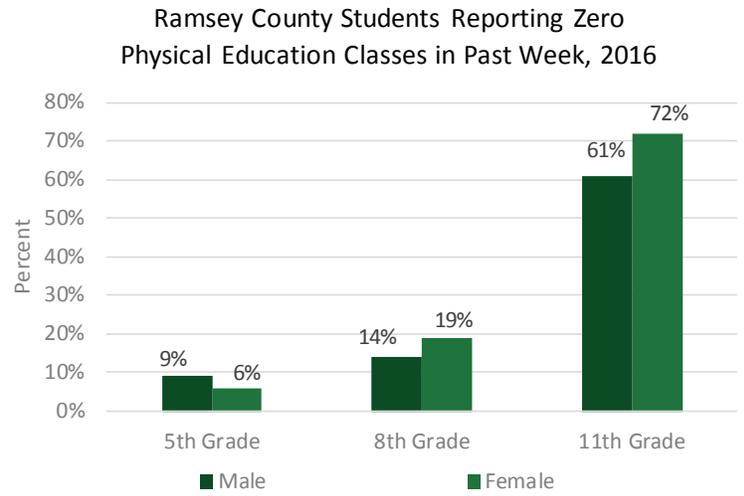
<sup>5</sup>The AHA's Recommendations for Physical Activity in Children. [http://www.heart.org/HEARTORG/HealthyLiving/HealthyKids/ActivitiesforKids/The-AHAs-Recommendations-for-Physical-Activity-in-Children\\_UCM\\_304053\\_Article.jsp#.WwXU-ZVX6Uk](http://www.heart.org/HEARTORG/HealthyLiving/HealthyKids/ActivitiesforKids/The-AHAs-Recommendations-for-Physical-Activity-in-Children_UCM_304053_Article.jsp#.WwXU-ZVX6Uk). Accessed May 2018.

## WHAT RAMSEY COUNTY IS DOING

text



Source: Minnesota Student Survey<sup>6</sup>



Source: Minnesota Student Survey<sup>6</sup>

<sup>6</sup>Source: Minnesota Department of Health. Minnesota Student Survey 2016. <http://www.health.state.mn.us/divs/chs/mss/>. Accessed May 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.<sup>1</sup> 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.<sup>2</sup>

## HOW WE ARE DOING

Many adults living in the U.S. are obese (36.5 percent).<sup>2</sup> In Minnesota, close to 30 percent of adults had obesity in 2016.<sup>3</sup> 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.<sup>4</sup>

## BENCHMARK INDICATOR

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

U.S. Target: 30.5 percent.<sup>5</sup>

## 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).<sup>2</sup> In the six-county metro area, adults with less education or low incomes are more obese.<sup>4</sup>

## 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.<sup>2</sup>

## 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.

(continued on back)

## 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.

<sup>1</sup> Classification of Overweight and Obesity by BMI, Waste Circumference, and Associated Disease Risks. National Heart, Lung, and Blood Institute. [https://www.nhlbi.nih.gov/health/educational/lose\\_wt/BMI/bmi\\_dis.htm](https://www.nhlbi.nih.gov/health/educational/lose_wt/BMI/bmi_dis.htm). Accessed January 2018.

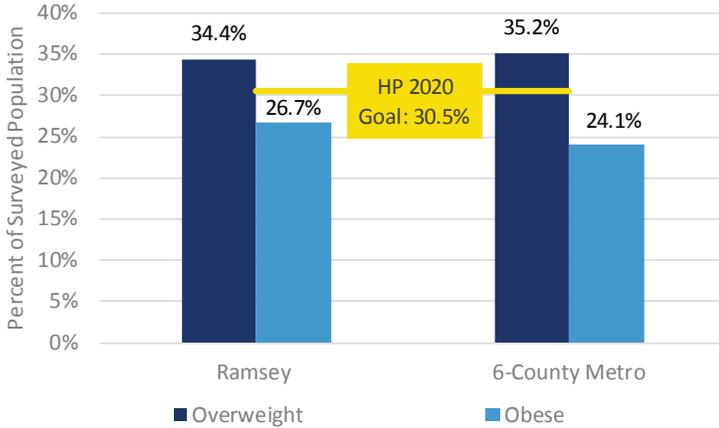
<sup>2</sup> Adult Obesity Cause & Consequences. Centers for Disease Control and Prevention. <https://www.cdc.gov/obesity/adult/>. Accessed January 2018.

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

<sup>4</sup> 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.

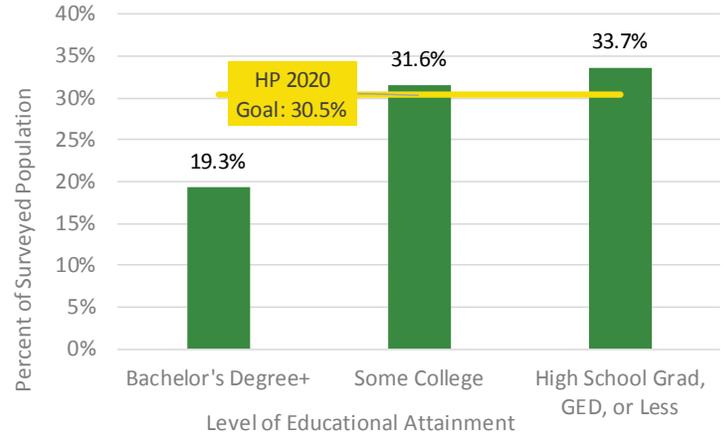
<sup>5</sup> Nutrition and Weight Status. Healthy People 2020. <https://www.healthypeople.gov/2020/topics-objectives/topic/nutrition-and-weight-status/objectives>. Accessed January 2018.

### Overweight and Obesity Status, 2014



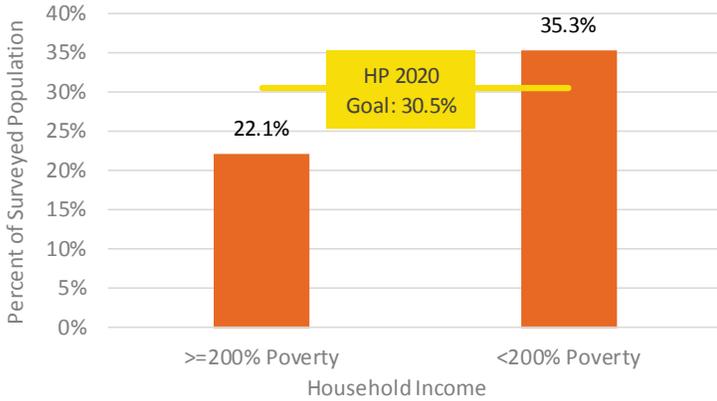
Source: Saint Paul - Ramsey County Public Health. Metro SHAPE Ramsey County Data Book 2014.<sup>6</sup>

### Obesity Status by Education, Six-County Metro, 2014



Source: Metro Public Health Analyst Network. Metro SHAPE Six County Data Book 2014.<sup>6</sup>

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



Source: Metro Public Health Analyst Network. Metro SHAPE Six County Data Book 2014.<sup>6</sup>

<sup>6</sup> 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.<sup>1</sup>

## 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.<sup>1</sup> 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.<sup>2</sup>

## 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.<sup>3</sup>

## 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.<sup>2</sup>

## 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.<sup>1</sup> 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.

(continued on back)

## 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.<sup>4</sup>

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

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

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

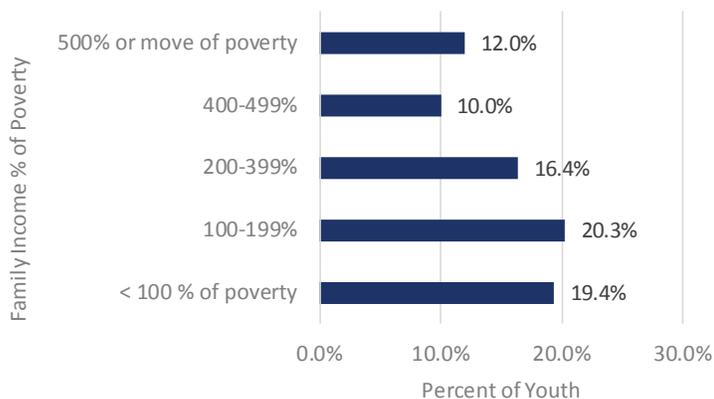
<sup>4</sup> Bass R, Eneli I. Severe childhood obesity: an under-recognized and growing health problem. *Postgraduate Medical Journal*. 2015;91(1081):639-45. DOI:10.1136/postgradmedj-2014-133033.

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

Ramsey County Parks and Recreation offers many programs to get youth and families outside and increase their activity levels. Program offerings range from hiking and canoeing to skiing and gardening. In addition, Ramsey County is home to nine county parks, six regional parks and five regional trail corridors. These parks provide a variety of free recreation opportunities, such as picnicking, play areas and swimming.

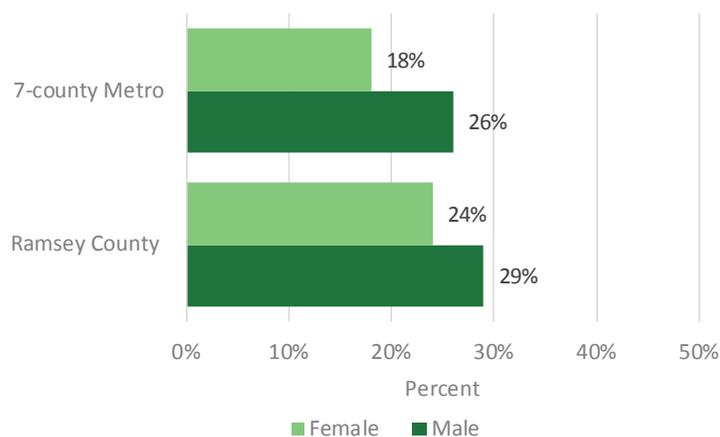
Also, the Ramsey County Library partners with the Friends of Ramsey County Library each year to offer the "Book It 5K walk/run." This run builds funding and support for the Summer Reading Program for youth. The race offers family group pricing to encourage all age participation, as well as a free kid's dash for youth 12 and under.

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



Source: Nutrition, Physical Activity, and Obesity. Healthy People 2020 Web site.<sup>5</sup>

Overweight or Obese, 9th Graders, 2016



Source: Minnesota Department of Health.<sup>6</sup>

<sup>5</sup> 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.

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

## DESCRIPTION

Oral health is essential to the health of the whole person. Oral health hygiene involving twice daily brushing and flossing is key to a healthy mouth and smile. Poor oral health can lead to poor self-esteem, barriers to employment, malnutrition, increased risk for heart disease, pre-term or low-birth weight births and other physical and emotional health problems.<sup>1</sup> At their most severe, oral health problems lead to debilitating pain and even death. A regular dental checkup can help prevent and treat oral health problems that cause poor attendance at work or school, behavioral problems and an inability to concentrate.

## HOW WE ARE DOING

Ramsey County and Minnesota exceed the Healthy People 2020 goal of 49 percent of children, adolescents and adults visiting a dentist.<sup>2</sup> However, compared to statewide rates, Ramsey County adults and adolescents are less likely to see a dentist regularly. Ramsey County adults are less likely than adolescents to get regular dental checkups.

### BENCHMARK INDICATOR

Healthy People 2020: Increase the proportion of children, adolescents, and adults who used the oral health care system in the past year.  
U.S. Target: 49 percent.

## DISPARITIES

People of color, with disabilities, other health problems, limited education and low income are more at risk for oral health problems. Barriers to care such as limited availability of dentists accepting Medical Assistance, lack of awareness of the role of oral health care in overall health, high cost and fear of dental procedures contribute to these disparities.<sup>1</sup>

## RISK FACTORS

Oral health hygiene and a healthy diet with calcium-rich foods and water as the main beverage choice is critical for good oral health. Environmental factors like living in a food desert make purchasing healthy foods more challenging. Tobacco, alcohol and drug use greatly increases the risk of cavities, gum disease and oral cancers.<sup>3</sup> Chronic diseases like diabetes are both a risk factor for poor oral health conditions and can become made worse by cavities and gum disease.<sup>3</sup>

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

In 2014, Ramsey County received the honor of being named an Oral Health Zone through the National Children's Oral Health Foundation. Partnerships with faith-based organizations, schools, parks and recreation centers, child care programs and others have supported the county in educating over 6,000 individuals about correct oral health. The Ramsey County Child and Teen Checkups program offers families who are insured through a Minnesota public insurance program help finding a dental clinic, arranging transportation or scheduling an interpreter for visits.

## Information to note

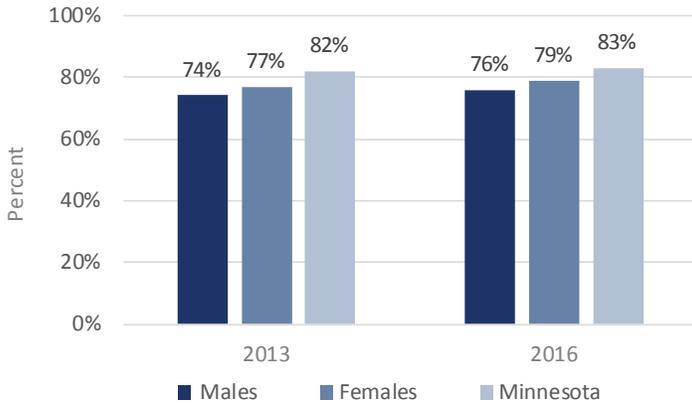
- Ramsey County residents are less likely to regularly visit a dentist compared to other Minnesotans.
- There are striking disparities related to regular dental care.
- Partnerships with faith-based organizations, schools, parks and rec centers, child care programs and others have helped Ramsey County educate over 6,000 individuals about oral health.

<sup>1</sup> Oral Health. Minnesota Department of Health. <https://apps.health.state.mn.us/mndata/oral-health>. Accessed July 24, 2017

<sup>2</sup> Oral Health. Healthy People 2020. <https://www.healthypeople.gov/2020/topics-objectives/topic/oral-health/objectives>. Accessed July 24, 2017.

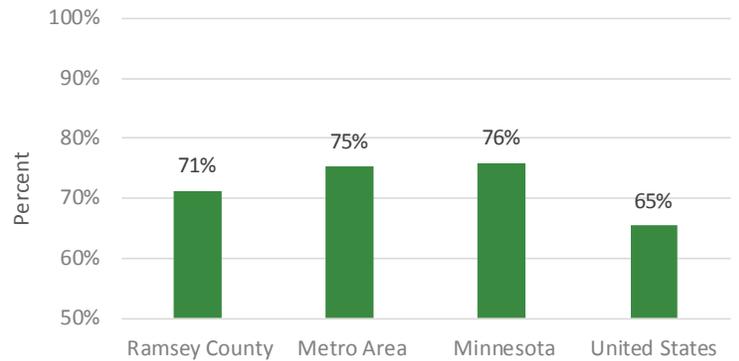
<sup>3</sup> The Status of Oral Health in Minnesota. Minnesota Department of Health. 2013. <https://www.astdd.org/docs/mn-third-grade-bss-2013.pdf>. Published September 2013. Accessed August 2018.

## 9th Graders Who Visited a Dentist During the Past Year, Ramsey County



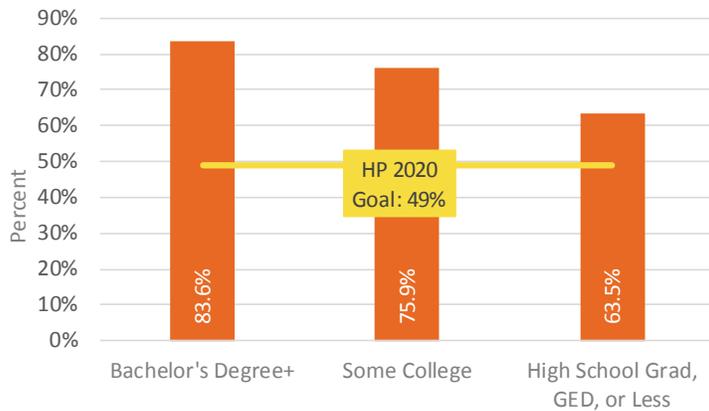
Source: Minnesota Student Survey

## Adults Ages 18+ Who Visited a Dentist in Past Year, 2012



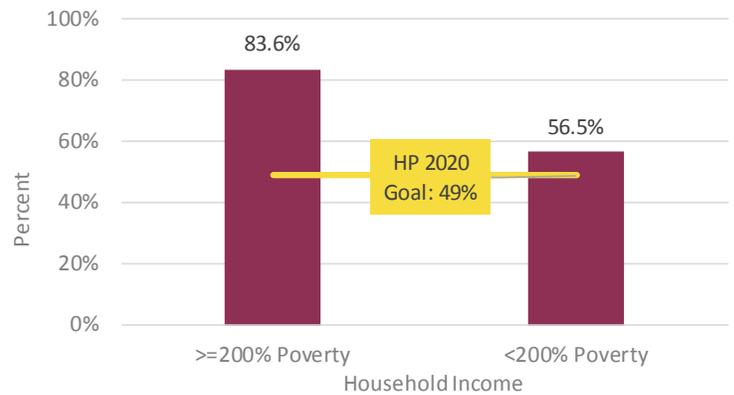
Source: Centers for Disease Control and Prevention (CDC).<sup>4</sup>

## Visited Dentist within Past Year, Six County Metro Adults Ages 25+, 2014



Source: Metro Public Health Analyst Network. Metro SHAPE 2014 Six County Data Book.<sup>5</sup>

## Visited Dentist within Past Year, Six County Metro Adults Ages 25+, 2014



Source: Metro Public Health Analyst Network. Metro SHAPE 2014 Six County Data Book.<sup>5</sup>

<sup>4</sup> Centers for Disease Control and Prevention. Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2012.

<sup>5</sup> 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 August 2017.

# Oral Health for People 65+

## DESCRIPTION

This indicator focuses on tooth loss among adults 65 years old and older. Tooth loss is one way to gauge oral health among seniors. Research has shown associations between chronic oral infections and heart/lung diseases, stroke, and diabetes. It can also affect facial appearance and quality of life. Tooth loss is preventable in almost all cases.<sup>1</sup>

## HOW ARE WE DOING

Almost 23 percent of people 65-75 have severe gum disease which can lead to tooth loss.<sup>2</sup> Thirty-six percent of Minnesotans 65 and older have lost some teeth. In Ramsey County in 2012, about 10 percent of adults 65 and older lost all their teeth due to tooth decay or gum disease, which was lower than both the state and national rates.<sup>3</sup> Preventive services are a key to good oral health, and those without dental insurance are less likely to use preventive services. More than 12 percent of Minnesotans did not access dental care in the past year because of the cost.<sup>4</sup>

## BENCHMARK INDICATOR

Healthy People 2020: Reduce the proportion of adults 65-74 years who have lost all of their natural teeth.

U.S. Target 21.6 percent.<sup>5</sup>

## DISPARITIES

Significant disparities exist among seniors for dental health. In general, the elderly, people with low incomes, and people of color experience a higher rate of oral diseases because they have less access to affordable dental care. In addition, higher levels of teeth loss are seen among these same groups as well as those with diabetes, disabilities or a smoking habit.<sup>1</sup> In 2014, 13 percent of Minnesota older adults with less than a high school education had complete tooth loss compared to 2 percent of older adults with a college degree. About 16 percent of Minnesota older adults with a household income less than \$35K had complete tooth loss compared to 4 percent of those with a household income of \$35K or more. About 15 percent of Minnesota older adults with a disability had complete tooth loss compared to 7 percent of those without a disability.<sup>1</sup>

## RISK FACTORS

There are several oral health risks that apply specifically to older adults. The use of multiple prescription or over-the-counter medications can leave them open to medication mistakes, drug interactions or negative reactions to drugs. Prescription and other medications can reduce saliva production, leading to dry mouth condition that occurs in 30 percent of older adults. This in turn can contribute to tooth decay and gum disease. The physical and cognitive changes that can come with aging may also create challenges for education, communication and self-care.<sup>6</sup>

- About 10% of Ramsey County residents 65 and older are missing all their natural, permanent teeth because of tooth decay or gum disease.
- An older person in Minnesota who does not have a high school degree is 16 times more likely to have all their teeth extracted than a person who has a college degree.
- African-American seniors, current smokers, and those with less income and lower levels of education have fewer remaining teeth.

<sup>1</sup> Minnesota Department of Health Oral Health Program (2014). Behavioral Risk Factor Surveillance System. St. Paul, Minnesota: MN Public Health Data Access portal. <https://apps.health.state.mn.us/mndata/oral-health>. Accessed August 2017.

<sup>2</sup> Seniors Oral Health. Washington Dental Service Foundation Web site. <http://seniorsoralhealth.org/>. Accessed August 10, 2017.

<sup>3</sup> Chronic disease and Health Promotion Data Indicators. Centers for Disease Control and Prevention Web site. <https://www.nidcr.nih.gov/DataStatistics/FindDataByTopic/ToothLoss/ToothLossSeniors65andOlder.htm>. Accessed July 31, 2017.

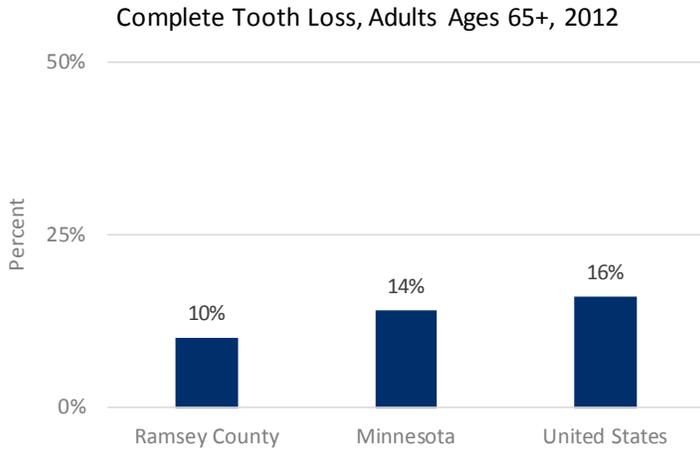
<sup>4</sup> Quick Facts: Oral Health in Minnesota. Minnesota Department of Health Web site. <http://www.health.state.mn.us/divs/healthimprovement/data/quick-facts/oralhealth.html>. Accessed July 31, 2017.

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

<sup>6</sup> WHERE IS THE SOURCE???

## WHAT RAMSEY COUNTY IS DOING

text



Source: Centers for Disease Control and Prevention.<sup>7 8</sup>

draft

<sup>7</sup> Behavioral Risk Factors: Selected Metropolitan Area Risk Trends, Chronic Disease and Health Promotion Data & Indicators. Centers for Disease Control and Prevention Web site. <https://chronicdata.cdc.gov/Behavioral-Risk-Factors/Behavioral-Risk-Factors-Selected-Metropolitan-Area/cpem-dkkm>. Accessed August 2, 2017.

<sup>8</sup> Chronic disease and Health Promotion Data Indicators. Centers for Disease Control and Prevention Web site. <https://www.nidcr.nih.gov/DataStatistics/FindDataByTopic/ToothLoss/ToothLossSeniors65andOlder.htm>. Accessed August 2, 2017.

## DESCRIPTION

Overall health depends on both physical and mental well-being. Mental health is a state of successful performance of mental function, resulting in productive activities, fulfilling relationships with other people, and the ability to adapt to change and to cope with challenges. Mental health is essential to personal well-being, family and interpersonal relationships, and the ability to contribute to community or society.<sup>1</sup> Well-being assesses the positive aspects of a person's life, such as positive emotions and life satisfaction. Well-being is a relative state where one maximizes his or her physical, mental, and social functioning in the context of supportive environments to live a full, satisfying and productive life.<sup>2</sup> Measuring the number of days when people report that their mental health was not good, i.e., poor mental health days, represents an important facet of health-related quality of life.<sup>3</sup>

## HOW WE ARE DOING

Responses from a 2014 SHAPE survey conducted in the region found that 27.2 percent of Ramsey County adults have been diagnosed with depression, and 22.9 percent with anxiety at some point in their life. When asked how often they experienced mentally unhealthy days in the past month 8.4 percent experienced more than 14 poor mental health days.<sup>4</sup> Responses to the Minnesota Health Access Survey found similar results: 8.3 percent in 2015 and 9 percent in 2017 reported frequent mental distress defined as at least 14 days in the past month of unhealthy days.<sup>5</sup>

## BENCHMARK INDICATOR

Healthy People 2020<sup>6</sup>: Increase the number of adults who report good or better mental health.

U.S. Target: 80.1 percent.

## DISPARITIES

Residents living in St. Paul reported more mentally unhealthy days than residents living in suburban Ramsey County. Residents without any health insurance coverage also reported more mentally unhealthy days.<sup>5</sup>

## RISK FACTORS

A study examining the validity of healthy days as a summary measure for county health status found that counties with more unhealthy days were likely to have higher unemployment, poverty, percentage of adults who did not complete high school, mortality rates and prevalence of disability.<sup>7</sup>

## Information to note

- 9% of Ramsey County adults reported frequent mental distress (14 or more days in the past month) in 2017.
- Uninsured residents report higher rates of frequent mental distress than insured residents.

<sup>1</sup> Healthy People 2020. Mental Health and Mental Disorders. <https://www.healthypeople.gov/2020/topics-objectives/topic/mental-health-and-mental-disorders>. Accessed July 2018.

<sup>2</sup> Kobau R, Sniezek J, Zack MM, Lucas RE, Burns A. Well-being assessment: An evaluation of well-being scales for public health and population estimates of well-being among U.S. adults. *Health and Well Being*. 2010;2(3):272-297. <https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1758-0854.2010.01035.x>. Accessed July 2018.

<sup>3</sup> Jia H, Muennig P, Lubetkin EI, Gold MR. Predicting geographical variations in behavioural risk factors: An analysis of physical and mental healthy days. *J Epidemiol Community Health*. 2004;58:150-155. [https://www.researchgate.net/publication/8914010\\_Predicting\\_geographical\\_variations\\_in\\_behavioural\\_risk\\_factors\\_An\\_analysis\\_of\\_physical\\_and\\_mental\\_healthy\\_days](https://www.researchgate.net/publication/8914010_Predicting_geographical_variations_in_behavioural_risk_factors_An_analysis_of_physical_and_mental_healthy_days). Accessed July 2018.

<sup>4</sup> 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 2018.

<sup>5</sup> Minnesota Department of Health. Minnesota Health Access Survey. Personal communication from MDH Health Economics Division. July 2018.

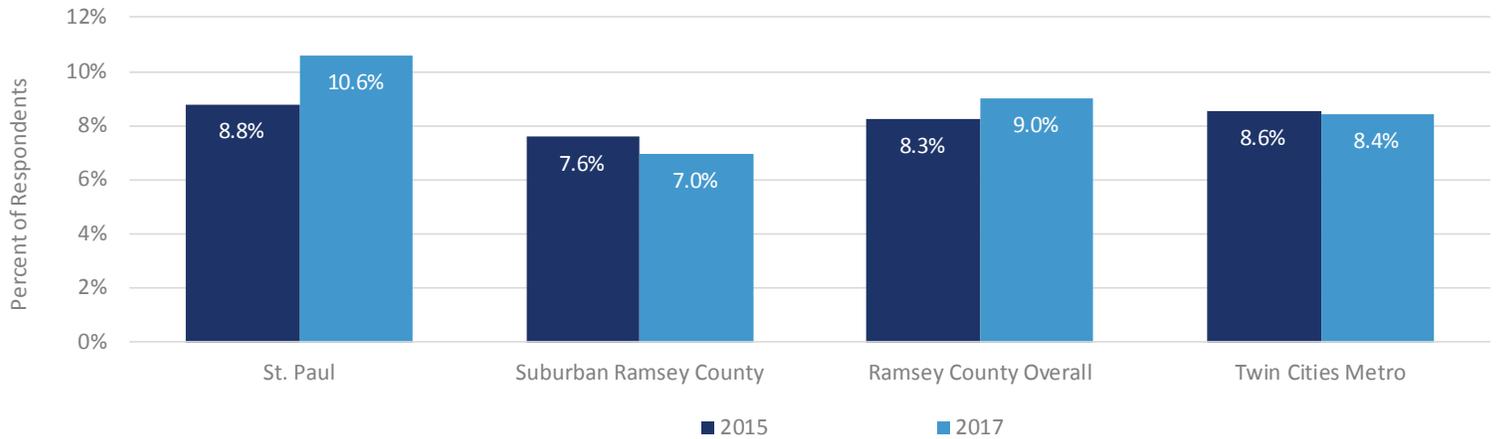
<sup>6</sup> Healthy People 2020. Health-Related Quality of Life & Well-Being. <https://www.healthypeople.gov/2020/topics-objectives/topic/health-related-quality-of-life-well-being/objectives>. Accessed July 2018.

<sup>7</sup> Andresen EM, Catlin TK, Wyrwich KW, Jackson-Thompson J. Retest reliability of surveillance questions on health related quality of life. *J Epidemiol Community Health*. 2003;57:339-343. <https://www.medscape.com/medline/abstract/12700216>. Accessed July 2018.

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

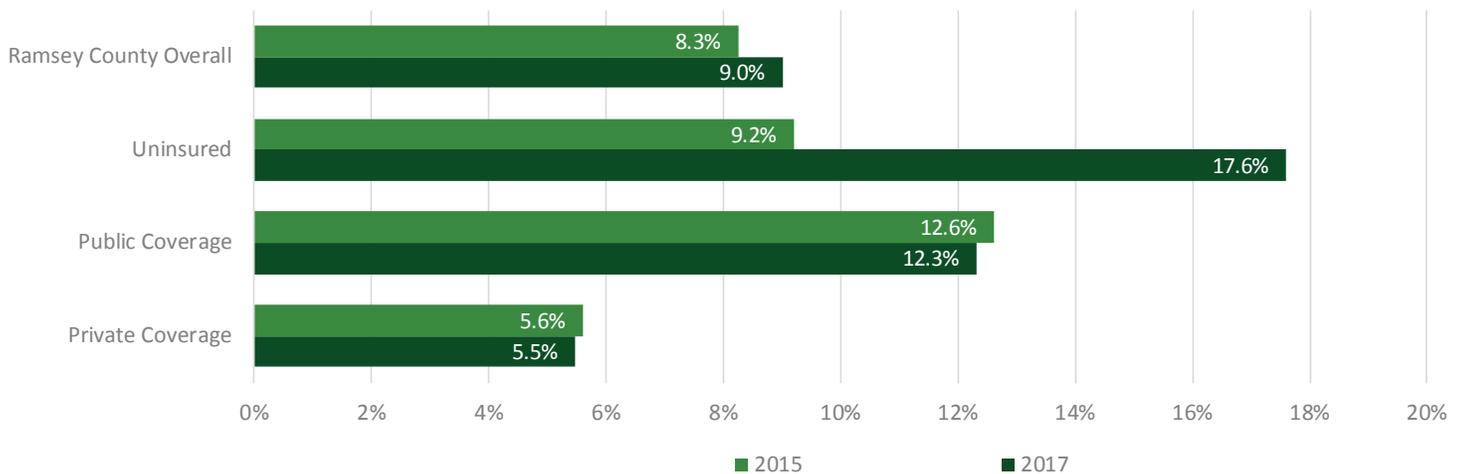
Ramsey County offers an array of mental health services to adults. Crisis services include walk-in access to psychiatrists, nurses, and social workers as an alternative to the emergency room and a 24/7 phone line offering support and referral. Ramsey County's Mental Health Center offers ongoing mental health care including assessment and referral, therapy, partial hospitalization day programming, and targeted case management. All services are offered on a sliding-fee scale for those without insurance coverage.

Frequent Mental Distress (14 or more days in past month)



Source: Minnesota Department of Health.<sup>8</sup>

Frequent Mental Distress (14 or more days in past month) by Insurance Status, Ramsey County



Source: Minnesota Department of Health.<sup>8</sup>

<sup>8</sup> Minnesota Department of Health. Minnesota Health Access Survey. Personal communication from MDH Health Economics Division. July 2018.

## DESCRIPTION

Mental disorders are conditions characterized by alterations in thinking, mood and/or behavior associated with distress and/or impaired functioning. Mental disorders contribute to a host of problems including disability, pain and early death. Mental disorders are among the most common cause of disability. It accounts for 18.7 percent of all years of life lost to disability and early death. The disease burden of mental illness is among the highest of all diseases. Mental health and physical health are interconnected. Mental illnesses, such as anxiety and depression can affect people's ability to participate in healthy behaviors such as physical activity and nutritious eating habits. This can lead to chronic disease or health problems which in turn can negatively impact mental health, leading to a downward spiral in an individual's health condition and quality of life.<sup>1</sup> The effects of mental illness range from minor disruptions in daily functioning to incapacitating personal, social, and occupational impairments and early death. Mental illness intensifies morbidity due to the multiple diseases it is associated with, including cardiovascular disease, diabetes, obesity, asthma, epilepsy and cancer. Serious mental illnesses are defined as disorders that cause substantial functional impairment that interferes with or limits one or more major life activities.<sup>2</sup>

## HOW WE ARE DOING

In 2014 nationally, 18.4 percent of adults 18 years or older experienced any mental illness in the past year. Minnesota had a similar prevalence at 18.5 percent.<sup>2</sup> According to a 2014 survey, about 22.9 percent of Ramsey County residents have been diagnosed with anxiety. Among that group 44.6 percent take medication for the condition. Similarly, 27.2 percent of Ramsey County residents have been diagnosed with depression. Among that group, 47.2 percent take medication for the condition. About 4.2 percent of Ramsey County residents have experienced serious psychological distress during the past 30 days, which is slightly higher than the national rate. Among Ramsey County adults that needed mental health care, 54.4 percent delayed care or did not receive care. Among those that delayed care or did not receive care, about 40 percent reported that it was due to cost or lack of insurance.<sup>3</sup>

## BENCHMARK INDICATOR

Healthy People 2020<sup>1</sup>:

- 1) Reduce the proportion of adults aged 18 years and older who experience major depressive episodes. U.S. Target: 5.8 percent
- 2) Increase the proportion of adults aged 18 years and older with serious mental illness (SMI) who receive treatment. U.S. Target: 72.3 percent
- 3) Increase the proportion of adults aged 18 years and older with major depressive episodes (MDEs) who receive treatment. U.S. Target: 75.9 percent

## DISPARITIES

The percentage of adults reporting psychological distress during the past 30 days decreased as education level and income increased showing how socio-economic status (SES) affects rates of mental distress.<sup>3</sup> Several studies have shown that people of color and American Indians face decreased detection of mental disorders in primary care and have lower rates of entry into, adherence with, and retention in specialty mental health services. Racial and ethnic disparities continue to occur, even after controlling for socioeconomic factors.<sup>4</sup>

<sup>1</sup> Mental Health and Mental Disorders. Healthy People 2020. <https://www.healthypeople.gov/2020/topics-objectives/topic/mental-health-and-mental-disorders>. Accessed August 2018.

<sup>2</sup> Lipari RN, Van Horn SL, Hughes A, Williams M. State and Substate Estimates of Any Mental Illness from the 2012–2014 national surveys on drug use and health. The CBHSQ report. 2017. [https://www.samhsa.gov/data/sites/default/files/report\\_3189/ShortReport-3189.html](https://www.samhsa.gov/data/sites/default/files/report_3189/ShortReport-3189.html). Published July 20, 2017. Accessed August 2018.

<sup>3</sup> 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 August 2018.

<sup>4</sup> Unmet Needs Assessment Report: Statewide Assessment of Treatment Gaps for Racial/Ethnic Groups in Need of Mental Health Services. New York State Office of Mental Health. 2011. [https://www.omh.ny.gov/omhweb/cultural\\_competence/reports/unmet\\_needs.pdf](https://www.omh.ny.gov/omhweb/cultural_competence/reports/unmet_needs.pdf). Accessed June 20, 2018.

## Information to note

- In any given year, an estimated 18.4% of U.S. adults ages 18 years or older suffered from any mental illness, which is similar to the Minnesota rate of 18.5%.
- Among Ramsey County residents, 27.2% report experiencing depression, 22.9% report experiencing anxiety, and 4.2% report experiencing serious psychological distress.
- Over half of Ramsey County residents who need mental health services are not receiving them or are receiving delayed treatment.

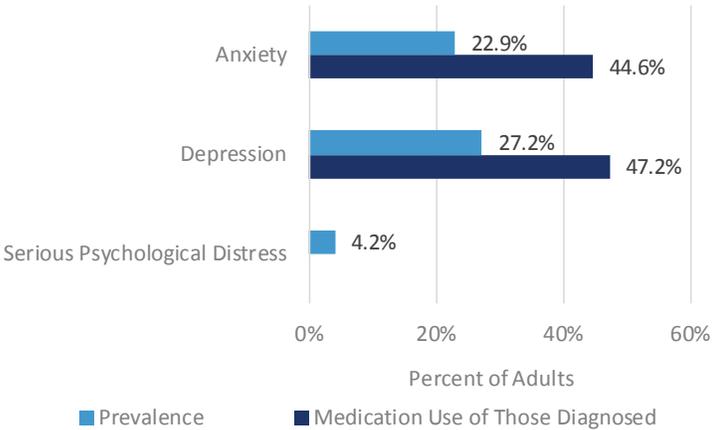
## RISK FACTORS

Risk factors for delaying or not getting treatment may include lack of access to a mental health provider, or geographic availability. Contributing factors may also include lack of insurance, minimal appointment availability, lack of culturally sensitive providers, and language barriers. Risk factors for experiencing mental illness may include, though not limited to, genetics, violence in the community, economic deprivation, drugs, food insecurity, housing instability, trauma, marginalization, stressful life situations, lack of social support, and other physiological factors.<sup>5</sup>

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

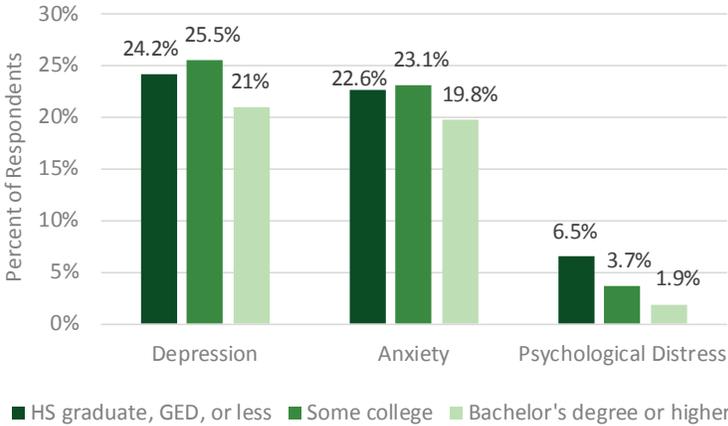
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**Anxiety, Depression, Distress and Medication Use in Adults, Ramsey County, 2014**



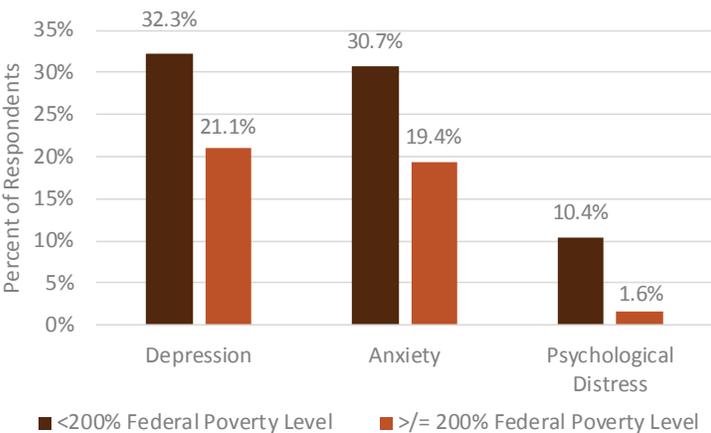
Source: Metro SHAPE Ramsey County Data Book.

**Adult Depression, Anxiety, Distress by Education, Ramsey County, 2014**



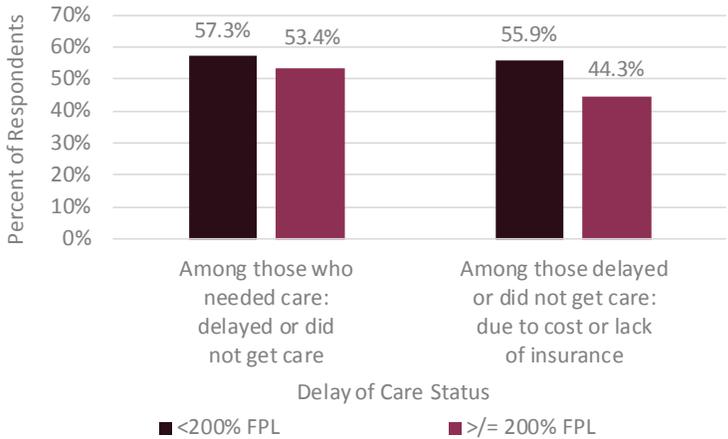
Source: Metro SHAPE Ramsey County Data Book.

**Adult Depression, Anxiety, Distress by Income of Household, Ramsey County, 2014**



Source: Metro SHAPE Ramsey County Data Book.

**Delay in Mental Health Care by Income, Six-County Metro, 2014**



Source: Metro Public Health Analyst Network.<sup>6</sup>

<sup>5</sup> Social Determinants of Health. Healthy People 2020. <https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-of-health>. Accessed August 2018.

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

# Vulnerable Adults and Adult Protection

## DESCRIPTION

A vulnerable adult is any person 18 years of age or older who receives services from a licensed health care facility, or home care or personal care assistance provider in Minnesota, or who requires assistance with his or her own care. Mistreatment of a vulnerable adult can include physical, emotional or sexual, abuse; failure to provide necessary food, shelter, clothing, health care or supervision; and financial exploitation.<sup>1</sup> When a vulnerable adult is first mistreated, they are often unable or unlikely to report it because of a physical or mental limitation.<sup>2</sup> Repeated abuse or neglect of a vulnerable adult can be indicative of an unsafe living situation, poor caregiver oversight, and/or physical or mental decline of the vulnerable adult and can result in the vulnerable adult being unable to continue to live independently or even death. Minnesota counties receive reports of suspected maltreatment of vulnerable adults from the Minnesota Adult Abuse Reporting Center (MAARC), a statewide common entry point for reports from mandated reporters and the public.

## HOW WE ARE DOING

Ramsey County's Social Services Department is the lead investigative agency for all reports alleging a vulnerable adult resident has been maltreated. If the alleged perpetrator is a licensed provider or employee of a facility or service/program the Minnesota Department of Health or Minnesota Department of Human Services will get involved. Reports are investigated, resulting in a determination of substantiated, inconclusive or false report. In 2016, Ramsey County received 3,015 reports of alleged vulnerable adult abuse. Of these, 718 resulted in a county investigation, with nine of those being referred for emergency protective services and may also receive follow-up services e.g., transitional care, assisted living, case management or referrals to community resources. In 2016, 94 percent of vulnerable adults with a substantiated or inconclusive maltreatment allegation did not experience a subsequent allegation within six months; in 2017 this number rose slightly to 94.4 percent.<sup>3</sup> In part due to Minnesota mandatory reporting laws of licensed professionals, law enforcement, educators, doctors, nurses and social workers make a report any time they have reason to believe abuse or neglect has occurred,<sup>4</sup> more reports are received every year than are ultimately determined to warrant an investigation.

## BENCHMARK INDICATOR

Minnesota Department of Human Services: Increase the percent of vulnerable adults with a substantiated or inconclusive maltreatment allegation who do not experience a subsequent substantiated or inconclusive maltreatment allegation within six months.<sup>5</sup>

Target: 80 percent (the minimum level of acceptable performance)

95 percent (high performance standard)

## RISK FACTORS

People who are socially isolated and those with disabilities are more vulnerable to abuse; nearly half of people with dementia have experienced abuse or neglect. When compared to those adults who have not been mistreated, the elderly who have been abused have a 300 percent higher risk of death. It is estimated that only about 4 percent of all adult

## Information to note

- In 2017, 94.4% of vulnerable adults with a substantiated or inconclusive maltreatment allegation in Ramsey County did not experience a subsequent substantiated or inconclusive maltreatment allegation within six months.
- People who are socially isolated or have disabilities are more vulnerable to abuse. It is estimated that only about 4% of all adult abuse cases nationally are ever reported.

<sup>1</sup> Vulnerable adult protection and elder abuse. Minnesota Department of Human Services. <https://mn.gov/dhs/people-we-serve/seniors/services/adult-protection/>. Accessed August 17, 2018.

<sup>2</sup> Adult Protection. Ramsey County. <https://www.ramseycounty.us/residents/assistance-support/protection-crisis-resources/adult-protection>. Accessed August 8, 2018.

<sup>3</sup> Personal communication, Research and Evaluation Unit, Health and Wellness Administrative Division, Ramsey County. August 2018.

<sup>4</sup> 2017 Minnesota Statutes 626.577 Reporting of Maltreatment of Vulnerable Adults. <https://www.revisor.mn.gov/statutes/cite/626.577>. Accessed August 17, 2018.

<sup>5</sup> Performance Reports. Minnesota Department of Human Services. [https://www.dhs.state.mn.us/main/idcplg?IdcService=GET\\_DYNAMIC\\_CONVERSION&RevisionSelectionMethod=LatestReleased&dDocName=DHS-290219](https://www.dhs.state.mn.us/main/idcplg?IdcService=GET_DYNAMIC_CONVERSION&RevisionSelectionMethod=LatestReleased&dDocName=DHS-290219). Accessed August 17, 2018.

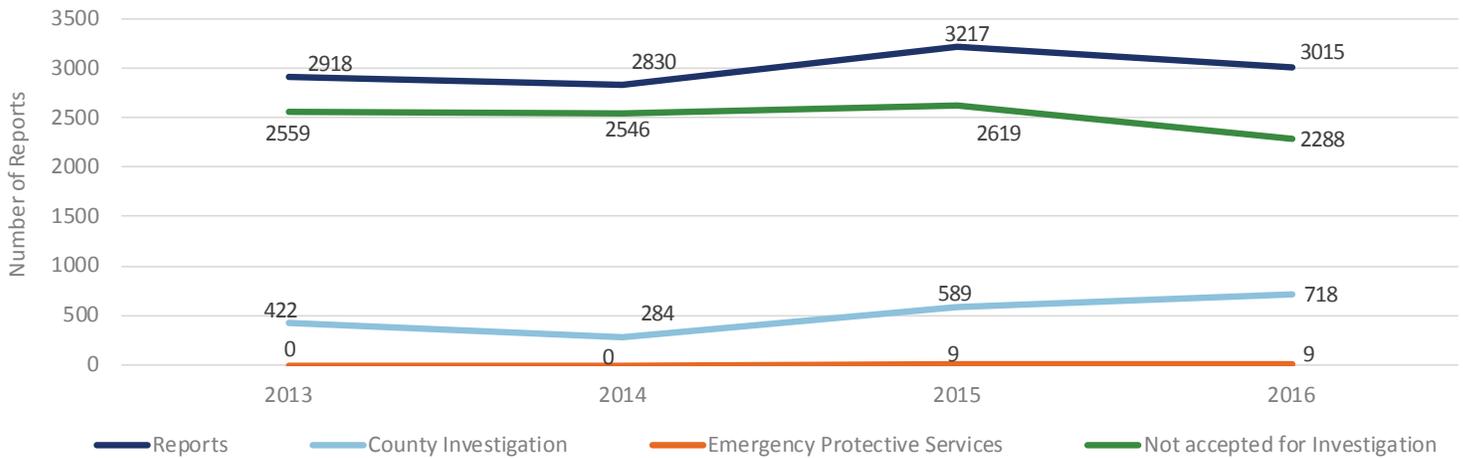
# Vulnerable Adults and Adult Protection

abuse cases nationally are ever reported; as most abuse is perpetrated by a family member or caregiver, the victim often feels shame, embarrassment or fear that an investigation will lead to further abuse.<sup>6</sup> In addition to the caregiver's inability to manage stress, other risk factors for elder abuse include: depression or other socio-emotional stressors, substance abuse, the intensity and complexity of the elderly person's illness, a history of domestic violence in the home, and the elder's own tendency toward verbal or physical aggression.<sup>7</sup>

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

Ramsey County Social Services Department assesses needs and provides emergency and continuing services to safeguard the welfare of vulnerable adults. Examples of adult protection activities include assisting the vulnerable adult with moving, applying for social or financial services or initiating proceedings related to guardianship or conservatorship. Specifically, to address financial abuse and self-neglect, the county provides increased oversight and quality assurance for staff working with vulnerable adults, as well as training about self-neglect.

Adult Protection Reports by Disposition, Ramsey County



Source: Ramsey County Social Services Department.

<sup>6</sup> Raise Awareness. National Center on Elder Abuse. <https://ncea.acl.gov/makeadifference/raiseawareness-weaad.html>. Accessed August 16, 2018.

<sup>7</sup> Robinson L, Saisan J, Segal J. Elder abuse and neglect: spotting the warning signs and getting help. HelpGuide.org. 2018. <https://www.helpguide.org/articles/abuse/elder-abuse-and-neglect.htm>. Updated April 2018. Accessed August 8, 2018.

# Emotional Distress - Youth

## DESCRIPTION

While most youth are healthy, physically and mentally, one in every four to five in the general population meet criteria for a mental disorder. With 50 percent of cases of mental illness beginning by age 14, and three-quarters by age 24, it is very important to make sure that youth dealing with the onset or continuation of mental or emotional distress receive the help they need.<sup>1</sup> Some stress can be positive in that it provides the energy to tackle a big test, presentation or sports event. Too much stress, however, can create unnecessary hardship and challenge.

The Minnesota Student Survey asks many questions that could indicate emotional distress. A sample of those is highlighted for this indicator.

## HOW WE ARE DOING

The 2016 Minnesota Student Survey found that 17 percent of Ramsey County 8th, 9th and 11th graders said they have a long-term mental health, behavioral or emotional problem. When asked to react when given the statement “I feel good about myself,” 37.5 percent of Ramsey County 11th-graders and one-third of 9th graders responded with “somewhat/sometimes” or “not at all/rarely.” As we look a little deeper at this question, an average of 6.9 percent from each grade reported “not at all or rarely.” Of those who responded “extremely/almost always,” almost half of all 5th graders reported feeling this way, compared to only one third of 8th and 9th graders, and a quarter of 11th graders.

Other questions asked students perceptions of how others cared or valued them. When asked “how much do you feel your parents care about you,” about 6 percent of 5th graders, 10 percent of 9th graders, and 14 percent of 11th graders responded “not at all,” “a little”, or “some.” When asked if they “feel valued or appreciated by others,” almost one-third of 5th graders and about 35 percent of 9th and 11th graders answered “not at all or rarely” or “somewhat or sometimes.”<sup>2</sup>

## DISPARITIES

It is estimated that 10 to 20 percent of the children in the U.S. at any time have significant emotional and behavioral disturbances. High rates of unmet need exist across racial/ethnic groups, with only approximately one in five children with mental health concerns receiving care.<sup>3</sup> In Minnesota, youth from minority racial/ethnic groups are approximately one-third to one-half as likely to receive mental health care as white youth.<sup>4</sup>

## RISK FACTORS

Stress can come from a variety of sources for youth including doing well in school, making and sustaining friendships, or managing perceived expectations from their parents, teachers or coaches. Ignoring emotional distress can have severe consequences for a child. Dealing with a mental health issue while trying to grow and learn can be extremely difficult.<sup>1</sup> A growing body of research has established that children as young as infancy may be affected by events that threaten their safety or the safety of their parents or caregivers.<sup>5</sup>

## Information to note

- Youth from minority racial/ethnic groups in Minnesota are about 1/3 to 1/2 less likely to receive mental health services as white youth.
- Almost 1/3 of Ramsey County 5th graders and 37% of both 9th and 11th graders do not feel valued or appreciated by others.

<sup>1</sup> Warning Signs of Mental Illness. American Psychiatric Association. <https://www.psychiatry.org/patients-families/warning-signs-of-mental-illness>. Accessed July 2018.

<sup>2</sup> Minnesota Student Survey. Saint Paul – Ramsey County Public Health data set.

<sup>3</sup> Being, Belonging, Becoming: Minnesota’s Adolescent Health Action Plan. Minnesota Department of Health. <http://www.health.state.mn.us/youth/bbb/status.html>. Accessed July 2018.

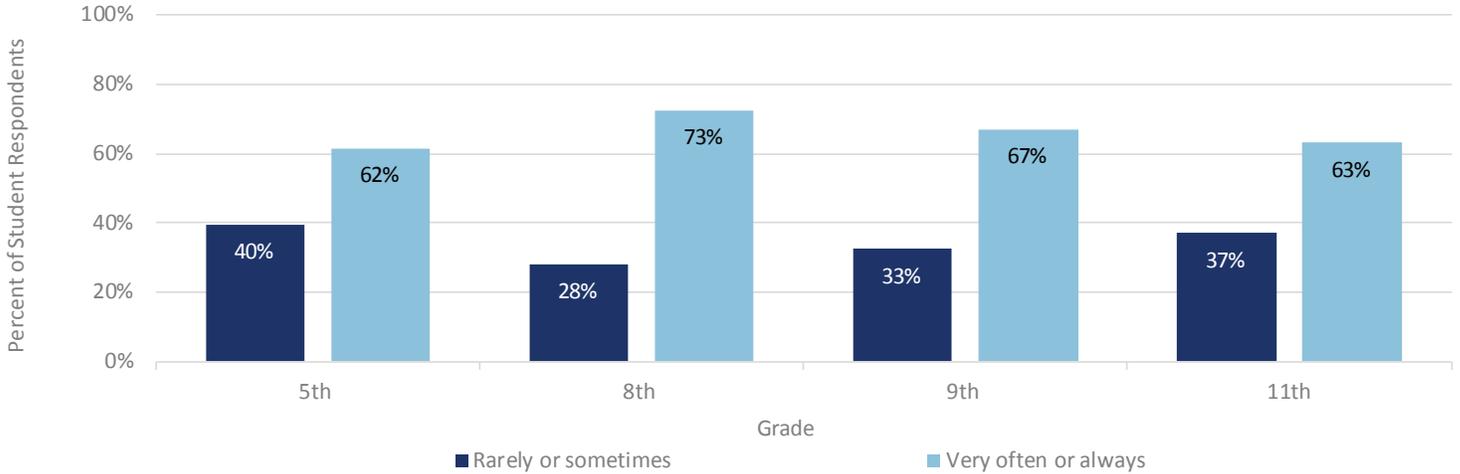
<sup>4</sup> Holm-Hansen C. Racial and Ethnic Disparities in Children’s Mental Health. Amherst H. Wilder Foundation. <https://www.wilder.org/wilder-research/research-library/racial-and-ethnic-disparities-childrens-mental-health-0>. Published October 2006. Accessed July 2018.

<sup>5</sup> Warning Signs and Risk Factors for Emotional Distress. SAMSHA. <https://www.samhsa.gov/find-help/disaster-distress-helpline/warning-signs-risk-factors>. Accessed July 13, 2018

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

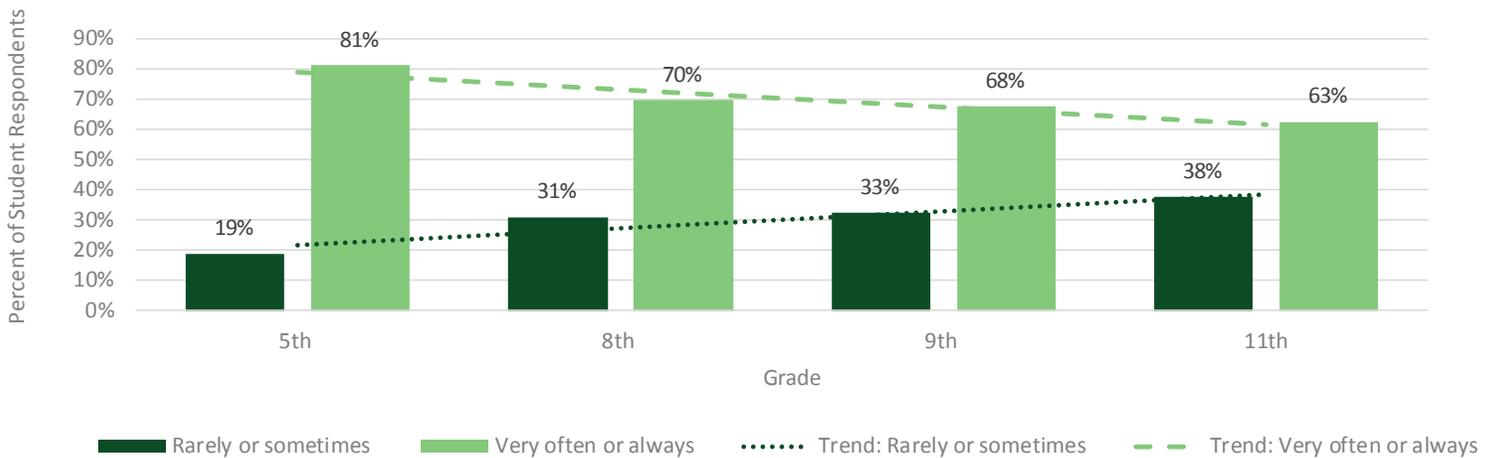
Ramsey County offers an array of mental health services to youth and children. Children’s Crisis services include emergency visits to families with children in crisis and a 24/7 phone line offering support and referral. Ramsey County’s Children’s Mental Health programs offer assessment and referral, and targeted case management. All services are offered on a sliding-fee scale for those without insurance coverage.

Feel Good About Life and Future, Ramsey County Students, 2016



Source: Minnesota Student Survey. Saint Paul - Ramsey County Public Health data set.

Feel Good About Self, Ramsey County Students, 2016



Source: Minnesota Student Survey. Saint Paul - Ramsey County Public Health data set.

# Suicide Thoughts and Behaviors

## DESCRIPTION

Suicidal thoughts or behaviors are both damaging and dangerous and are therefore considered a psychiatric emergency.<sup>1</sup> A suicide attempt is a nonfatal, self-directed, potentially injurious behavior with intent to die as a result of the behavior. Suicidal thoughts, also called suicidal ideation, refers to thinking about, considering, or planning suicide.<sup>2</sup> According to the Centers for Disease Control and Prevention, self-directed violence (SDV) encompasses a range of violent behaviors, including acts of fatal and nonfatal suicidal behavior, and non-suicidal intentional self-harm (i.e., behaviors where the intention is not to kill oneself, as in self-mutilation). It also includes suicidal ideation (i.e., thinking about, considering, or planning for suicide).<sup>3</sup> Four percent of adults age 18 and older in the U.S. had thoughts about suicide in 2016. Nationally, the percentage of adults having serious thoughts of suicide and adults that attempted suicide was highest among adults aged 18-25 and among adults reporting two or more races.<sup>4</sup> Other research indicates that >50 percent of persons who engage in suicidal behavior never seek health services.<sup>3</sup> Consequently, prevalence figures based on health records substantially underestimate the societal burden of suicidal thoughts and behavior.

## HOW WE ARE DOING

Ramsey County in 2016 had the highest rate (785.3 per 100,000 population) of nonfatal SDV visits to a hospital or emergency department in the 7-county metro area.<sup>5</sup> In 2016, Ramsey County 8th, 9th and 11th graders were asked if they had ever seriously considered attempting suicide, 23.4 percent said they had at some point in their lives and 12.2 percent in the past year (12.8 percent of 8th graders, 11.5 percent of 9th graders, 13.2 percent of 11th graders). When asked if they had ever actually attempted suicide, 8.8 percent of students responded yes. Among all 9th graders in the metro area, Ramsey County had the highest percentage of students reporting actually attempting suicide.<sup>6</sup>

## BENCHMARK INDICATOR

Healthy People 2020: Reduce suicide attempts by adolescents that require medical attention.

U.S. Target: 1700 suicide attempts per 100,000 population.<sup>7</sup>

## DISPARITIES

Rates of suicide are higher among males than among females, while the reverse is found in studies of suicidal thoughts and nonfatal suicidal behavior. Nationally, young adults and adults reporting more than one race have higher rates of suicide thoughts and behaviors.<sup>8</sup>

## RISK FACTORS

Many factors can increase the risk of suicidal thoughts and behaviors, such as childhood trauma, serious mental illness, physical illness, alcohol or other abuse, a painful loss, (continued on back)

## Information to note

- Ramsey County in 2016 had the highest rate of visits to a hospital or emergency room for nonfatal self-directed violence among counties in the Metro area.
- Among all 9th graders in the metro area, Ramsey County had the highest percentage of students attempting suicide in 2016.

<sup>1</sup> Risk of Suicide. NAMI. <https://www.nami.org/Learn-More/Mental-Health-Conditions/Related-Conditions/Suicide>. Accessed July 11, 2018.

<sup>2</sup> Suicide. National Institute of Mental Health. [https://www.nimh.nih.gov/health/statistics/suicide.shtml#part\\_154973](https://www.nimh.nih.gov/health/statistics/suicide.shtml#part_154973). Accessed July 11, 2018.

<sup>3</sup> Crosby AE, Ortega L, Melanson C. Self-directed Violence Surveillance: Uniform Definitions and Recommended Data Elements, Version 1.0. Atlanta (GA): Centers for Disease Control and Prevention, National Center for Injury Prevention and Control; 2011. <https://www.cdc.gov/violenceprevention/pdf/self-directed-violence-a.pdf>. Accessed July 2, 2018.

<sup>4</sup> Centers for Disease Control and Prevention (CDC) WISQARS Leading Causes of Death Reports. <https://webappa.cdc.gov/sasweb/ncipc/leadcause.html>. Accessed July 11, 2018.

<sup>5</sup> MIDAS Injury Data System. Minnesota Department of Health. <http://www.health.state.mn.us/injury/midas/injury>. Accessed July 2, 2018.

<sup>6</sup> Minnesota Student Survey. Saint Paul – Ramsey County Public Health data set.

<sup>7</sup> Mental Health and Mental Disorders. Healthy People 2020. <https://www.healthypeople.gov/2020/topics-objectives/topic/mental-health-and-mental-disorders/objectives>. Accessed July 2, 2018.

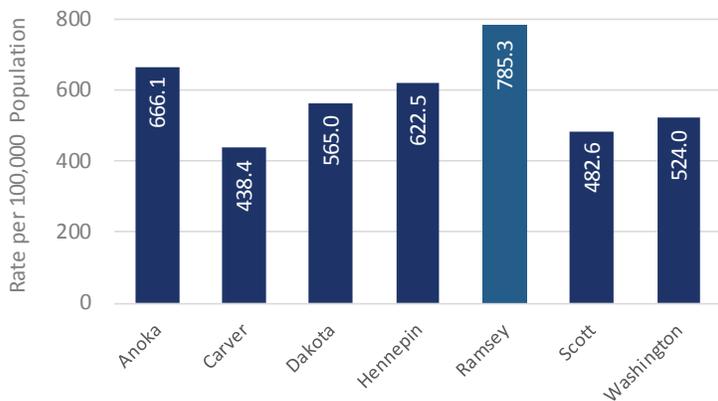
<sup>8</sup> Minnesota State Suicide Prevention Plan. Goals and Objectives for Action: 2015-2020. Suicide Prevention Resource Center. <http://www.sprc.org/sites/default/files/Minnesota%20SuicidePreventionStatePlan2015.pdf>. Accessed July 11, 2018.

exposure to violence, social isolation, and easy access to lethal means. Factors such as meaningful relationships, coping skills and safe and supportive communities can decrease the risk of suicidal thoughts and behaviors.<sup>9</sup>

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

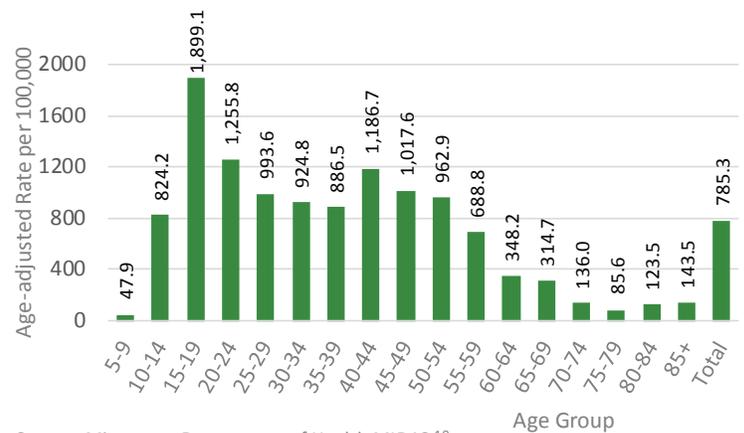
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Rate of Nonfatal Self-Directed Violence Visits Treated at an Emergency Department/Hospital by Metro County, 2016



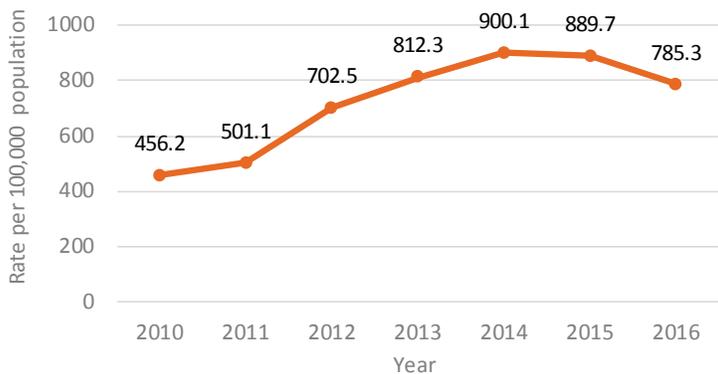
Source: Minnesota Department of Health MIDAS.<sup>10</sup>

Rate of Nonfatal Self-Directed Violence Visits Treated at an Emergency Department/Hospital by Age Group, Ramsey County, 2016



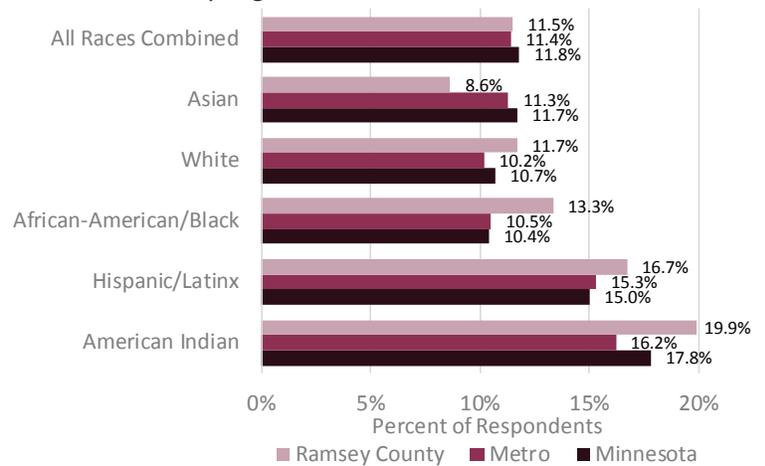
Source: Minnesota Department of Health MIDAS.<sup>10</sup>

Rate of Nonfatal Self-Directed Violence Visits Treated at an Emergency Department/Hospital, Ramsey County, 2010 - 2016



Source: Minnesota Department of Health MIDAS.<sup>10</sup>

9th Graders Who Seriously Considered Attempting Suicide in the Last Year, 2016



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

<sup>9</sup> Suicide. National Institute of Mental Health. [https://www.nimh.nih.gov/health/statistics/suicide.shtml#part\\_154973](https://www.nimh.nih.gov/health/statistics/suicide.shtml#part_154973). Accessed July 11, 2018.

<sup>10</sup> Minnesota Department of Health MIDAS. <http://www.health.state.mn.us/injury/midas/index.cfm>. Accessed July 2018.

## DESCRIPTION

There is no single path that leads to suicide. Mental illness, substance abuse, social isolation, unemployment, health problems, personal loss, a sense of being a burden and other factors can all contribute to suicidal thoughts.<sup>1</sup> Firearms are the most common method used by Minnesotans who take their own lives, and suicide deaths via gunshot have become even more common the last couple of decades. The next most common methods are suffocation and poisoning.<sup>2</sup>

## HOW WE ARE DOING

According to statistics from the Minnesota Department of Health, 1,453 Ramsey County residents died by suicide in the past 26 years with yearly numbers fluctuating between 39 to 79 deaths. In 2016, Ramsey County lost 65 residents to suicide- about 1 every six days. During that year, 25 of the 65 suicides in Ramsey County occurred among those 20-34 years of age. Suicides have been highest among this age group in recent years and have been on an upward trend. For all adults age 20 and above, the 2016 rate of suicide deaths was 15.3 for every 100,000 people.<sup>3</sup> In 2016, the Ramsey County suicide rate was 11.1 deaths per 100,000 compared to the Minnesota rate of 13.5, neither of which meet the Healthy People goal of 10.2. With small numbers, rates can fluctuate quite a bit over time. In 1990, the Ramsey County suicide rate was 16.1 per 100,000, which then sunk to 7.5 in 2002, rose to 13.2 in 2015, and came back down to 11.1 in 2016.<sup>2</sup>

## BENCHMARK INDICATOR

Healthy People 2020: Reduce the rate of suicides.

U.S. Target: 10.2 suicides for every 100,000 people.

## DISPARITIES

Those dying by suicide in Ramsey County continue to be overwhelmingly white, middle-aged and male. Nearly 76 percent suicide deaths in 2016 were men, and the rate among whites was over 1.5 times the rate of other races. In the last ten years, the average number of female suicides was 14 per year, compared to an average of 43 per year among men.<sup>2</sup>

## RISK FACTORS

Suicide is complex and the risk of suicide increases with multiple factors. Some risk factors include mental illness, substance abuse, extreme mood swings, sleep disorders, feelings of hopelessness, anxiety, isolation, rage or unbearable pain.<sup>4</sup>

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

Ramsey County offers an array of mental health services to adults. Crisis services include walk-in access to psychiatrists, nurses, and social workers as an alternative to the emergency room and a 24/7 phone line offering support and referral. Ramsey County's Mental Health Center offers ongoing mental health care including assessment and referral, therapy, partial hospitalization day programming, and targeted case management. All services are offered on a sliding-fee scale for those without insurance coverage.

(continued on back)

## Information to note

- In 2016, the Ramsey County suicide rate of 11.1 per 100,000 was lower than the Minnesota rate of 13.5 but does not meet the Healthy People 2020 target of 10.2.
- Those dying by suicide in Ramsey County continue to be overwhelmingly white, middle-aged and male.
- In 2016, Ramsey County lost one resident to suicide about every 6 days.

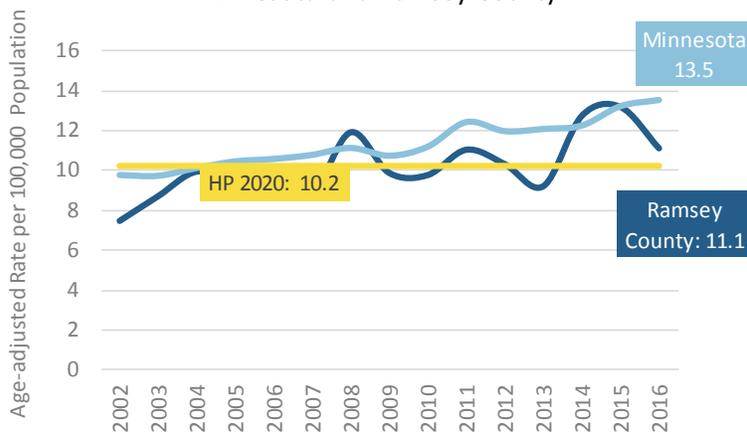
<sup>1</sup> 2012 National Strategy for Suicide Prevention: Goals and Objectives for Action: A Report of the U.S. Surgeon General and of the National Action Alliance for Suicide Prevention. <https://www.ncbi.nlm.nih.gov/books/NBK109906/#introduction.s5>. 2012. National Center for Biotechnology Information. Accessed July 31, 2017.

<sup>2</sup> Minnesota Department of Health. Health Statistics Portal. <https://pqc.health.state.mn.us/mhsq/frontPage.jsp>. Accessed April 30, 2018.

<sup>3</sup> Minnesota Vital Statistics Interactive Queries. Minnesota Department of Health Website. <https://mhsq.web.health.state.mn.us/frontPage.jsp>. Accessed May 15, 2018.

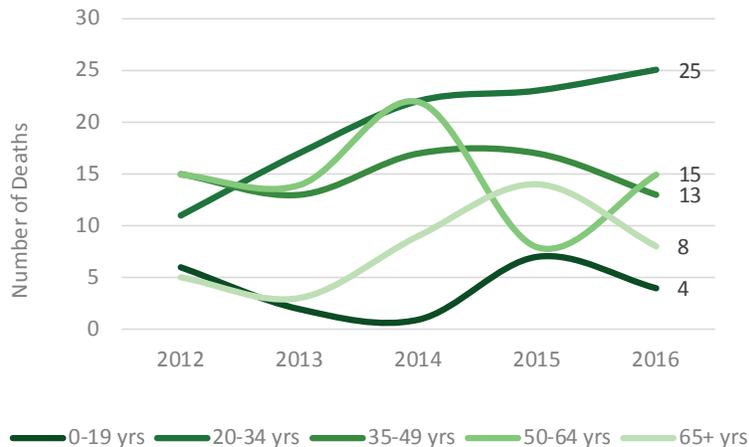
<sup>4</sup> Increase in adult suicides shows need to connect Minnesotans to hope and help. Minnesota Department of Health. 2016. <http://www.health.state.mn.us/news/pressrel/2016/suicide090716.html>. Published September 7, 2016. Accessed July 31, 2017.

### Suicide Rate Over Fifteen Years, Minnesota and Ramsey County



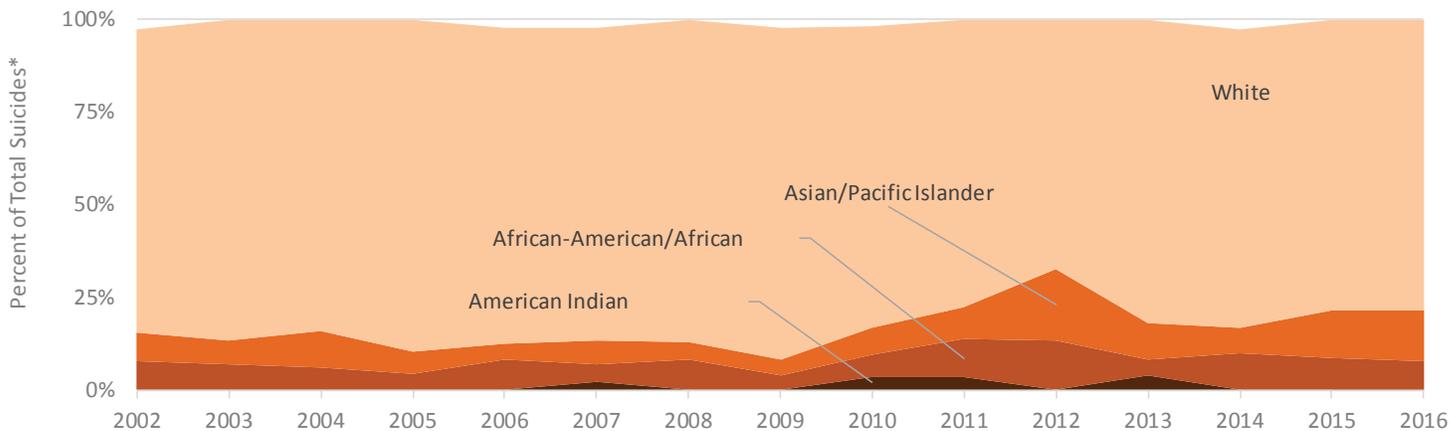
Source: Minnesota Department of Health.<sup>5</sup>

### Suicide by Age Group, Ramsey County



Source: Minnesota Department of Health.<sup>5</sup>

### Suicides by Race, Ramsey County



\* may not equal 100% because of missing race  
Source: Minnesota Department of Health.<sup>5</sup>

<sup>5</sup> Minnesota Department of Health, Health Statistics Portal. <https://pqc.health.state.mn.us/mhsq/frontPage.jsp>. April 30, 2018.

## DESCRIPTION

With 61.1 percent of American families having two parents in the workforce, child care has become a necessity for many growing families.<sup>1</sup> When parents are trying to decide what type of child care to use, there are many factors to consider. Two popular options are family child care and commercial child care centers.<sup>2</sup>

Head Start and Early Head Start are comprehensive child care, health and social service programs for low-income families. Over 1400 children, from prenatal through age 5, are enrolled in programs each year throughout Ramsey County.<sup>3</sup>

## HOW ARE WE DOING

Licensed family child care most often takes place in someone's home. Children are cared for by one or two main providers, and are usually kept in a mixed age group of children. In 2016, there were 512 licensed family child care providers in Ramsey County. Infant prices averaged \$177 per week. Toddler and preschool-age care fell between \$160 and \$170. School-age care was about \$145 every week.

Licensed child care centers are often similar to school and usually have a more structured environment. Due to licensing and staff numbers, groups of children in center child care tend to be much larger and are usually separated by age. For center care, average prices are almost double family child care in the same year. For the 207 facilities, the weekly cost for an infant averaged \$331. Toddler care was \$283 and preschooler care, \$199.

Each type has its own advantages. In family child care, children are cared for in an environment that feels more like home with an adult they get to know well. This familiarity along with the sizable price difference makes family based child care a popular option. Center child care tends to be a good option for parents who have children that will soon be starting school. The educational environment, larger staff numbers and age based grouping gives a child a chance to get accustomed to more structure.

Each type also has disadvantages. One negative to family child care can be schedule related. Since there are usually only one or two providers, if they get sick or have a schedule conflict, it can be difficult for parents to find a backup. On the other hand, center based child care tends to be the more expensive option which deters many parents. Schedule flexibility may also be a difficult challenge as there is less likely to be nonstandard hours, holiday or last-minute care options.<sup>4</sup>

## DISPARITIES

Parents choose center based child care for a multitude of reasons; these facilities are more regulated and inspected than family-based programs, children are usually grouped with others of the same age, and staff in these programs more commonly found to have previous education or experience in child care. Research has shown that low-income parents, parents of infants and toddlers, and Hispanic families prefer family and home-based care.<sup>5</sup> (continued on back)

## Information to note

- In 2016, there were 512 licensed family child care providers and 207 child care centers in Ramsey County.
- The average weekly cost in 2016 for family based infant care was \$177, compared to the cost of center based infant care of \$331.

<sup>1</sup> Economic Characteristics of Families. Bureau of Labor Statistics Webs site. <https://www.bls.gov/news.release/famee.nr0.htm>. Accessed July 31, 2017.

<sup>2</sup> Family Child Care and Day Care Center: What's the Difference. Care.com Web site. <https://www.care.com/c/stories/3438/family-child-care-and-day-care-center-whats/>. Accessed July 31, 2017.

<sup>3</sup> Community Action Partnership of Ramsey and Washington Counties. Web site. <http://www.capr.org/community-action-services/head-start/> Accessed January 04, 2018.

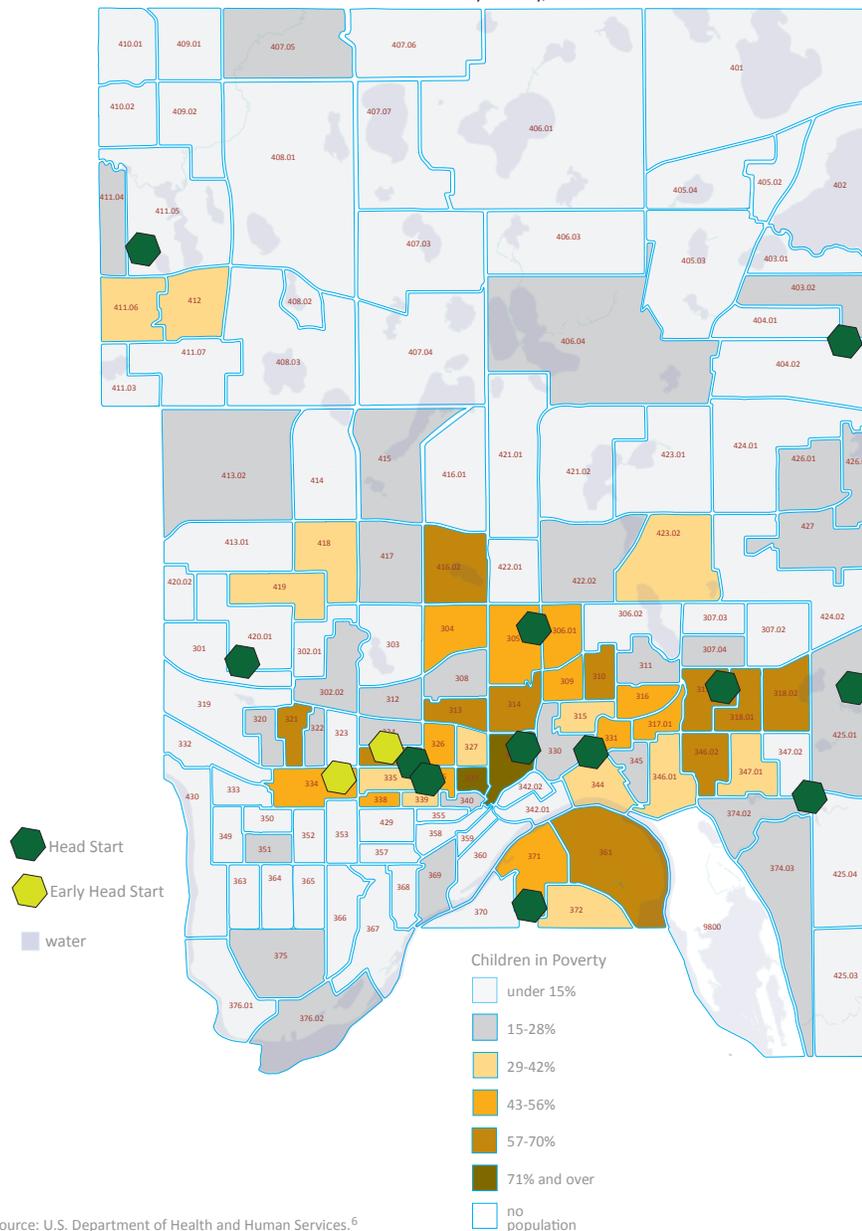
<sup>4</sup> Ramsey County Licensed Family Child Care Homes Average Rates by City and Total Centers Average Rates. Think Small Web site. [https://www.thinksmall.org/wp-content/uploads/2017/06/2016-Ramsey-average-rates\\_2.pdf](https://www.thinksmall.org/wp-content/uploads/2017/06/2016-Ramsey-average-rates_2.pdf). Accessed July 29, 2017.

<sup>5</sup> Unequal Access: Barriers to Early Childhood Education for Boys of Color (2016) Robert Wood Johnson Foundation. Accessed 6/28/2017 from: [https://usa.childcareaware.org/wp-content/uploads/2016/10/UnequalAccess\\_BoysOfColor.pdf](https://usa.childcareaware.org/wp-content/uploads/2016/10/UnequalAccess_BoysOfColor.pdf).

### WHAT RAMSEY COUNTY GOVERNMENT IS DOING

Ramsey County provides financial assistance through the Minnesota Child Care Assistance Program (CCAP) to parents who can't afford child care. CCAP provides child care assistance to families who have been on the Minnesota Family Investment Program or Diversionary Work Program in the last 12 months and to others who meet income guidelines on a sliding scale. Funds are available for children up to age 12, and for children with special needs up to age 15. Parents receiving child care assistance may pay part of the child care cost based on income and size of family. Ramsey County also licenses in-home child care homes, offers training, and monitors child care homes to support the health and safety of children.

Head Start and Early Head Start Programs by Percent of Children Age 0-4 Below Poverty Level by Census Tracts, Ramsey County, 2016



Source: U.S. Department of Health and Human Services.<sup>6</sup>

<sup>6</sup> U.S. Department of Health and Human Services, Administration for Children and Families; U.S. Census American Community Survey 2012-2016.

# Child Care - Providers Language

## DESCRIPTION

Licensed family-based child care makes up the majority of child care providers in Minnesota. With the growing number of families who speak a language other than English at home, it is becoming more important for services, especially child care, to become linguistically diverse.

## HOW ARE WE DOING

Parent Aware, a child care rating system administered by the Minnesota Department of Human Services, conducts a survey of child care providers in Minnesota. In the 2017 survey, participating providers were asked “What languages do you or your helper speak fluently?” The majority of family child care providers in Minnesota (97 percent) spoke English. The other languages most spoken included Spanish, Somali and Hmong.<sup>1</sup> Altogether, providers speaking languages other than English only made up about 3 percent of all family child care providers in Minnesota. In the seven county metro area, this percentage triples with 9 percent of family child care providers reporting that they speak languages other than, or in addition to English.

## DISPARITIES

Families who do not primarily speak English at home are more likely to use family members for child care who may not be licensed. Some parents equate lack of recognition for their language as a lack of respect for their culture. Although unintended by providers, parents may feel rejected and may isolate themselves further.<sup>2</sup> A 2016 survey of child care providers in Minnesota identified a great need for cultural diversity training, and a desire for easier communication with parents.<sup>3</sup>

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

Ramsey County Child Care Licensing welcomes providers from diverse language backgrounds to serve families who speak languages other than English. We collaborate with ThinkSmall because they have connections in the community that are trained to work with these providers. Ramsey County CCL staff is from diverse backgrounds and collectively speak several languages including but not limited to Spanish, Hmong, and East African Languages. Ramsey County also has interpreters’ services in several languages. Please call our intake Social Worker at (651) 266-4166 if you speak any language other than English and would like to become a Licensed Child Care Provider.

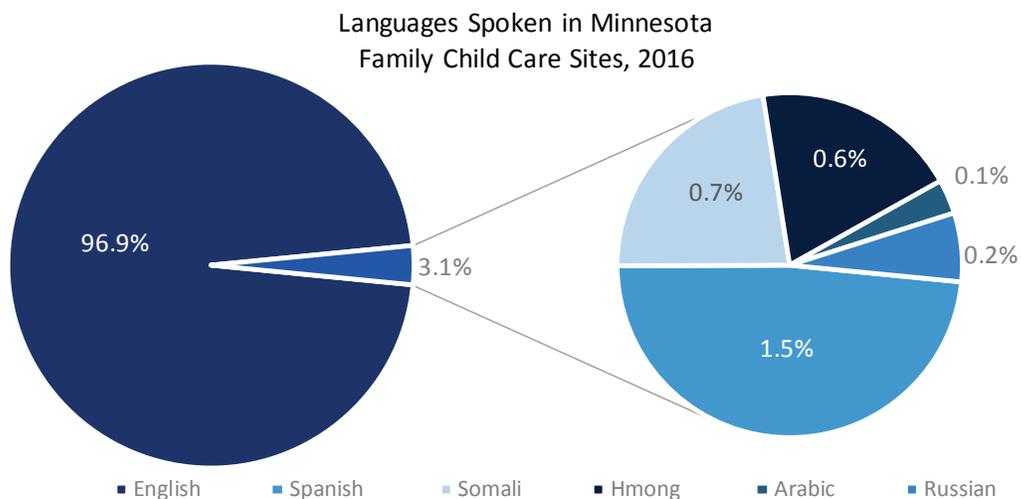
## Information to note

- The most common languages spoken in child care facilities (other than English) were Spanish, Somali and Hmong.
- Family based child care providers speaking languages other than English only made up about 3 percent of providers in Minnesota and 9 percent in the metro area which does not adequately meet the needs of Ramsey County parents.

<sup>1</sup> Diversity of child care programs participating in Parent Aware: An equity lens. Minnesota Department of Human Services Web site. <https://edocs.dhs.state.mn.us/lfsrserver/Public/DHS-7086Ca-ENG>. Accessed July 20, 2017.

<sup>2</sup> Lee, L. Working with Non-English-Speaking Families. Teaching For Change. 2012. [http://www.teachingforchange.org/wp-content/uploads/2012/08/ec\\_nonenglishspeakingfamilies\\_english.pdf](http://www.teachingforchange.org/wp-content/uploads/2012/08/ec_nonenglishspeakingfamilies_english.pdf). Accessed July 20, 2017.

<sup>3</sup> An Important Partnership in Child Development: Child Care Providers and Screening Programs. Minnesota Department of Health Web site. <http://www.health.state.mn.us/divs/cfh/topic/devscreening/content/document/pdf/childcaresurveyrpt.pdf>. Accessed July 20, 2017.



Source: Diversity of child care programs participating in Parent Aware: An equity lens.<sup>4</sup>

<sup>4</sup> Diversity of child care programs participating in Parent Aware: An equity lens. Minnesota Department of Human Services Web site. <https://edocs.dhs.state.mn.us/lfserver/Public/DHS-7086Ca-ENG>. Accessed July 20, 2017.

# Youth Enrichment

## DESCRIPTION

There is a link between youth engagement and positive development that underscores the importance of community involvement.<sup>1</sup> This indicator reports how involved the youth of Ramsey County are in the community, after-school activities and sports. Involvement is assessed by looking at participation in quality out-of-school activities which are associated with better school attendance, grades, test scores and interpersonal skills, as well as higher aspirations for college and reduced dropout rates.<sup>2</sup>

## HOW WE ARE DOING

In Ramsey County, 61.1 percent of students reported participation in enrichment activities, such as sports, music, community activities, leadership activities and religious activities, at least 3 times per week during 2016.<sup>3</sup> Among Ramsey County 9th graders in 2016, sports and school-sponsored non-sport clubs were the most common activities.<sup>3</sup>

## BENCHMARK INDICATOR

Healthy People 2020<sup>4</sup>: Increase the proportion of adolescents who participate in extracurricular and/or out-of-school activities.

U.S. Target: 90.6 percent.

## DISPARITIES

Disparities exist in relation to racial/ethnic group and income level.<sup>2</sup> Hispanic students fare the worst, with an activity participation rate of 52.2 percent compared to whites with the highest level at 71 percent. Similarly, only 52.1 percent of low income students participate in enrichment activities compared to 71.3 percent of higher income students.<sup>2</sup>

## RISK FACTORS

Risk factors that may have a negative impact on involvement in enrichment activities include, though are not limited to, violence in the community, economic deprivation, use of illicit drugs, family history, trauma, marginalization, stressful life situations, lack of social support, and genetic or physiological factors.<sup>4</sup> A child's connection to a caring adult, their home environment, education of parents, and peer networks also affect their willingness to engage with the community in a positive manner.<sup>4</sup>

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

text

- In 2016, Ramsey County had the lowest percentage of students participating in after-school enrichment activities among Metro Area counties.
- Hispanic students and low income students have a much lower participation rate in extracurricular activities.

<sup>1</sup> Brennan M, Barnett R, Baugh E. Youth involvement in community development: Implications and possibilities for extension. *Journal of Extension*. 2007;45(4):203-213. <https://joe.org/joe/2007august/a3.php>. Published August 2007. Accessed July 2018.

<sup>2</sup> Enrichment Activities. *Minnesota Compass*. <http://www.mncompass.org/children-and-youth/enrichment-activities#7-3704-g>. Accessed July 2018.

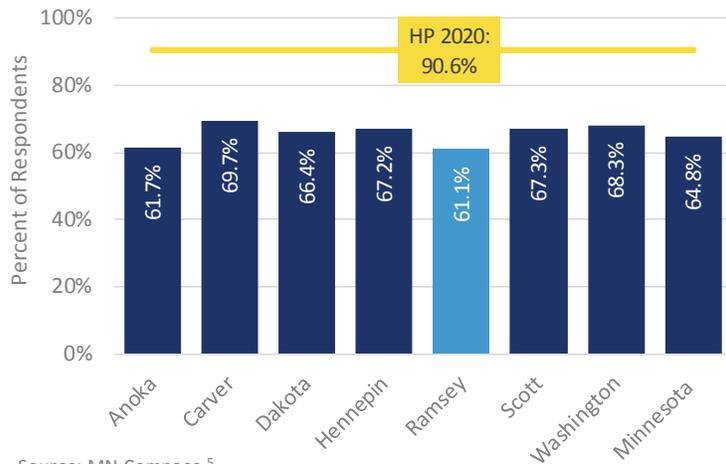
<sup>3</sup> Minnesota Student Survey. *Minnesota Department of Education*. <http://w20.education.state.mn.us/MDEAnalytics/DataTopic.jsp?TOPICID=242>. Accessed May 21, 2018.

<sup>4</sup> Adolescent Health. *Healthy People 2020*. <https://www.healthypeople.gov/2020/topics-objectives/topic/Adolescent-Health/objectives>. Accessed July 2018.

## WHAT RAMSEY COUNTY IS DOING

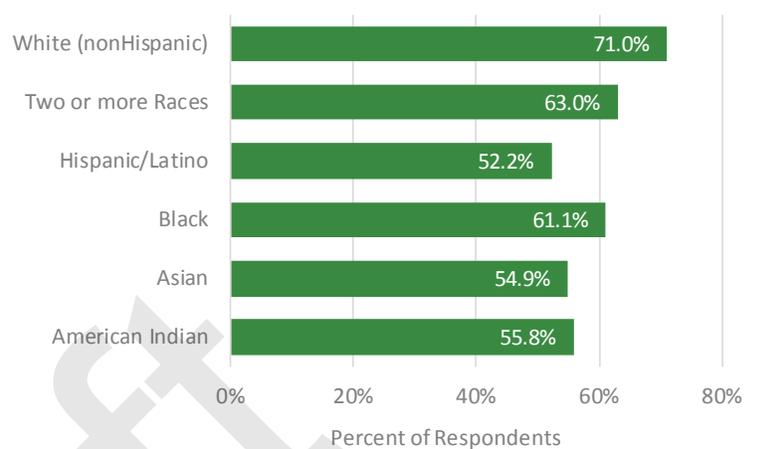
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### Student Engagement in Enrichment Activities at Least 3 Times per Week, 2016



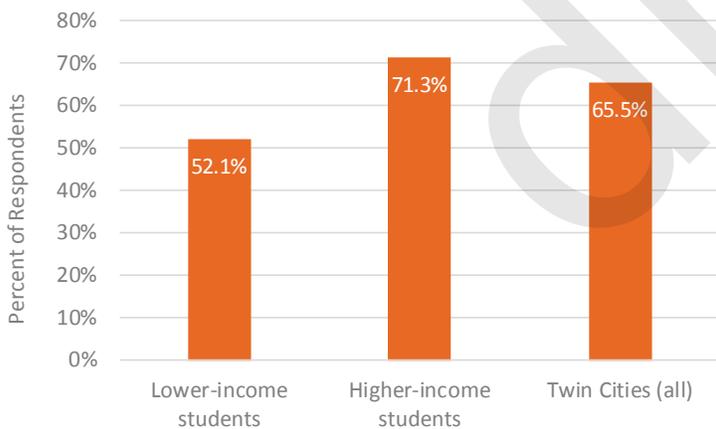
Source: MN Compass.<sup>5</sup>

### Student Engagement in Enrichment Activities by Race, 7-County Metro, 2016



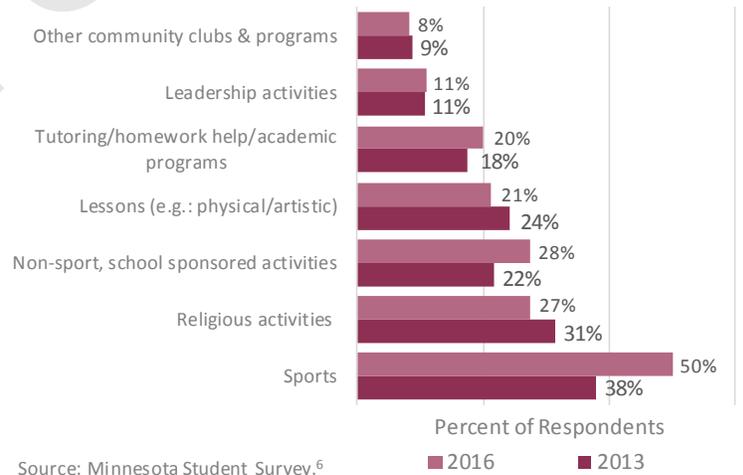
Source: MN Compass.<sup>5</sup>

### Student Engagement in Enrichment Activities by Income, 7-County Metro, 2016



Source: MN Compass.<sup>5</sup>

### Participation in Activities Outside of the School Day at Least One Day per Week, 9th Graders, Ramsey County



Source: Minnesota Student Survey.<sup>6</sup>

<sup>5</sup> MN Compass. <http://www.mncompass.org/children-and-youth/enrichment-activities#1-3710-g>. Accessed June 2018.

<sup>6</sup> Minnesota Student Survey. Minnesota Department of Education Website. <http://w20.education.state.mn.us/MDEAnalytics/DataTopic.jsp?TOPICID=242>. Accessed May 21, 2018.

## DESCRIPTION

Youth not feeling safe in school or in their community hurts well-being, development and undermines academic achievement.<sup>1</sup> Youth who fear for their safety within their neighborhoods, at home, or at school are more likely to develop health problems, social and emotional problems, skip class and have poor academic performance. Additionally, fear at school can contribute to an unhealthy school climate, and can lead to negative student behaviors.<sup>2</sup> For example, one study found that students who witnessed violence at school were more likely to perpetrate violent behaviors.<sup>3</sup> Students who are fearful may also feel they need to protect themselves through actions that can actually increase the likelihood of violence, such as carrying weapons at school.<sup>2</sup>

Having a safe neighborhood is important for positive child and youth development.<sup>4</sup> Neighborhoods that are unsafe are associated with high rates of infant mortality and low birthweight, juvenile delinquency, high school dropout, child abuse and neglect, and poor motor and social development among pre-school children.<sup>5</sup> People can be exposed to violence in many ways. They may be victimized directly, witness violence or property crimes in their community, or hear about crime and violence from other residents.

## HOW WE ARE DOING

In 2016, most Ramsey County students felt safe at home with over 97 percent of students in 5th, 8th, 9th or 11th grade agreeing or strongly agreeing to the statement “I feel safe at home” which is very similar to what Minnesota students in those grades report. Ramsey County youth feel a little less safe when the setting is their neighborhoods with about 90 percent agreeing or strongly agreeing that they feel safe, which compares to statewide results of 95 percent. In school settings, 93 percent of Ramsey County students agreed or strongly agreed to the statement “I feel safe at school”, which is very similar to the Minnesota results.<sup>6</sup>

## DISPARITIES

In Minnesota, students of color are more likely than white students to have missed school due to concerns for their safety. Males are more likely to report strong feelings of safety than females.<sup>6</sup>

Ramsey County students who self-identified as transgender or a gender minority were less likely than other students to feel safe at school. In 2016, Ramsey County African-American 9th graders reported the lowest levels of feeling safe. Ramsey County 5th graders report feeling safest going to and from school, at school and at home, although they reported feeling most unsafe in their neighborhoods.<sup>6</sup>

## RISK FACTORS

Fearing for personal safety is associated with missing school activities or classes.<sup>1</sup> Exposure to poverty is associated with youth feeling unsafe at school.<sup>5</sup> Nationally, foreign-born children and native-born children with foreign-born parents are about twice as likely as the

- In school, at home or in their neighborhood, over 90% of 5th, 8th, 9th, and 11th graders in 2016 reported feeling safe or very safe.
- Ramsey County youth who self-identified as transgender or a gender minority were less likely than other students to feel safe at school.

<sup>1</sup>When Youth Feel Unsafe. America's Promise Alliance. <http://www.americaspromise.org/sites/default/files/d8/POV-WhenYouthFeelUnsafe.pdf>. Published February 2018. Accessed July 2018.

<sup>2</sup>Unsafe at School: Indicators of Child and Youth Well Being. Child Trends. [https://www.childtrends.org/wp-content/uploads/2015/12/38\\_Unsafe\\_At\\_School.pdf](https://www.childtrends.org/wp-content/uploads/2015/12/38_Unsafe_At_School.pdf). Updated December 2015. Accessed July 2018.

<sup>3</sup>Flannery D, Wester K, Singer M. Impact of exposure to violence in school on child and adolescent mental health behavior. *Am J Community Psychol*. 2004;32(5):559-573. DOI: 10.1002/jcop.20019.

<sup>4</sup>Neighborhood Safety: Indicators of Child and Youth Well-Being. Child Trends. <https://www.childtrends.org/indicators/neighborhood-safety>. Accessed July 2018.

<sup>5</sup>Cote-Lussier C, Fitzpatrick C, Seguin L, Barnett TA. Poor, Unsafe, and Overweight: The Role of Feeling Unsafe at School in Mediating the Association Among Poverty Exposure, Youth Screen Time, Physical Activity, and Weight Status. *American Journal of Epidemiology*. 2015;182(1):67-79. doi: 10.1093/aje/kwv005.

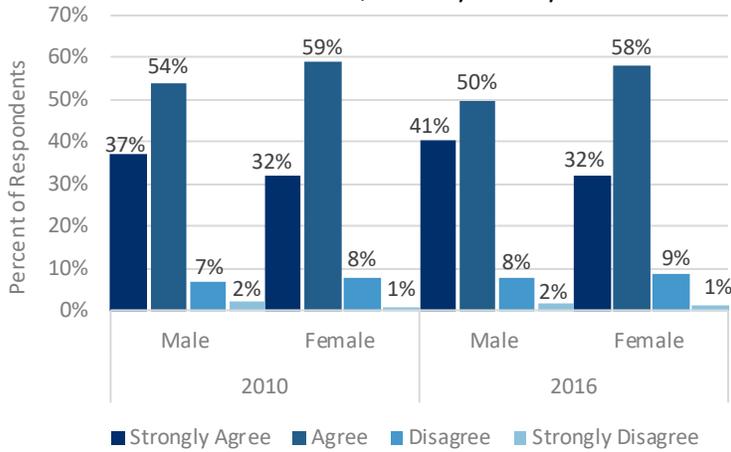
<sup>6</sup>Minnesota Student Survey. Minnesota Department of Education. <http://w20.education.state.mn.us/MDEAnalytics/DataTopic.jsp?TOPICID=242>. Accessed July 2018.

children of native-born parents to live in a neighborhood that is described as never or only sometimes safe.<sup>4</sup>

## WHAT RAMSEY COUNTY IS DOING

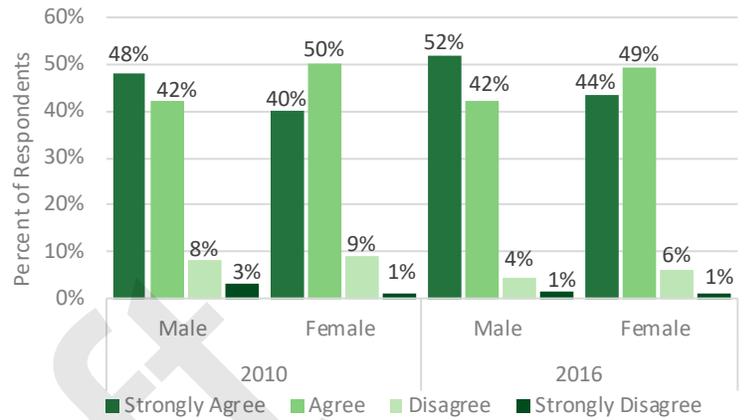
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### Students Feeling Safe in School, 9th Graders, Ramsey County



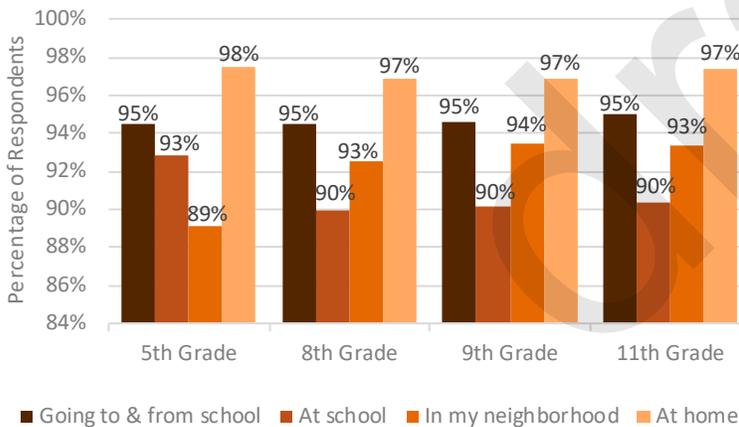
Source: Minnesota Student Survey<sup>7</sup>

### Students Feeling Safe in Neighborhood, 9th Graders, Ramsey County



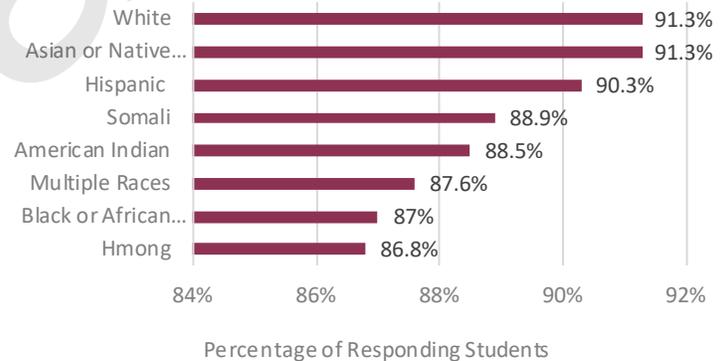
Source: Minnesota Student Survey<sup>7</sup>

### Students Feeling Safe by Setting, Ramsey County, 2016



Source: Minnesota Student Survey<sup>7</sup>

### Students Feeling Safe at School by Race/Ethnicity, 5th, 8th, 9th, 11th Graders, Ramsey County, 2016



Source: Minnesota Student Survey<sup>7</sup>

<sup>7</sup>Source: Minnesota Student Survey. Minnesota Department of Education Website. <http://w20.education.state.mn.us/MDEAnalytics/DataTopic.jsp?TOPICID=242>. Accessed July 2018.

## DESCRIPTION

Student school mobility is defined as anytime a student changes schools for reasons other than grade promotion within an academic year. States have been granted individual flexibility on identifying what is considered an academic year, and Minnesota has defined that period as Oct. 1 of every school year, to the date of test administration; a time span of only seven months.<sup>1</sup> Students who frequently change schools between kindergarten and twelfth grade are less likely to complete high school on time, complete fewer years of school, attain lower levels of occupational prestige, are more likely to experience symptoms of depression, and are more likely to be arrested as adults.<sup>2</sup> Increased school mobility also tends to correlate with lower achievement.<sup>3</sup> The majority of elementary and secondary school children in America make at least one nonpromotional school change over their educational careers, with many children making multiple moves.<sup>4</sup>

## HOW ARE WE DOING

During an academic year, transfers out of a Ramsey County school district are much more common than transfers into or within a district for both public and charter schools. In 2016, the midyear transfer rate for public school students were about 18 percent, and about 19 percent for students attending charter schools. Mobility rates do not seem to be dropping significantly, but since 2012, the timing of transfers has increased during the summer.

## DISPARITIES

In most cases, charter school students have almost double the mobility rates of public schools and changing schools during the current school year is most common among sixth-graders. In sixth and ninth grades, students of color are three to four times more likely than white students to have changed schools during the school year.<sup>5</sup>

## RISK FACTORS

Mobility most often occurs because of changes in a parent's employment, or financial instabilities that heavily impact a family.<sup>6</sup>

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

The McKinney-Vento Act requires schools to remove barriers to enrollment and attendance for students experiencing homelessness, including transportation to their school of origin. This is the responsibility of schools, but Ramsey County works through contracts with community agencies that support families experiencing homelessness to assist schools in providing educational continuity.

## Information to note

- Students of color in 6th and 9th grade are three to four times more likely than white students to have changed schools during the school year.
- During the academic year, transfers out of a school district in Ramsey County are much more common than transfers into or within a district for both public and charter schools.

<sup>1</sup> Student Mobility. Parents United for Public Schools Web site. <http://www.parentsunited.org/to-be-filed/student-mobility/>. Accessed January 2018.

<sup>2</sup> Herbers, J., Reynolds, A., Chin-Chin, C. School Mobility and Developmental Outcomes in Young Adulthood. *Developmental Psychopathology*. 2016. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4139923/>. Accessed January 2018.

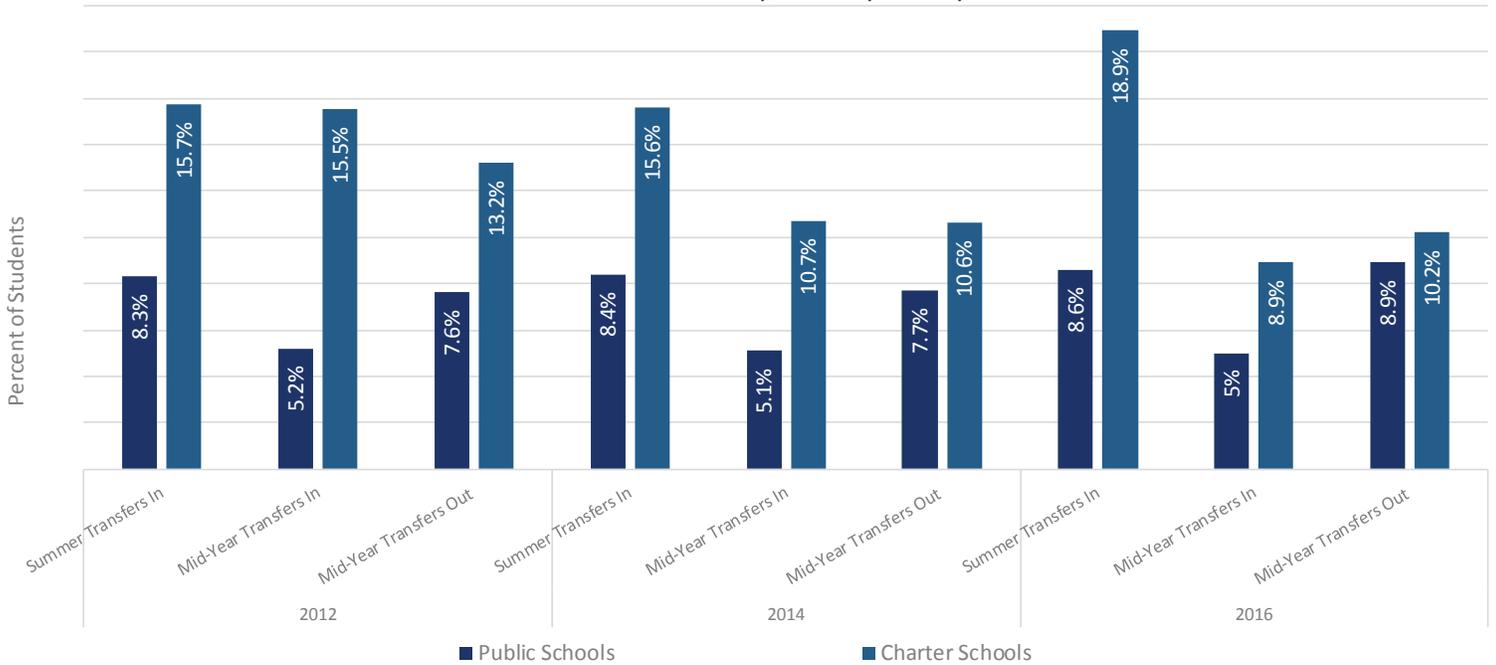
<sup>3</sup> Mehana, M., Reynolds, A.; School Mobility and Achievement: a Meta-Analysis. *Children and Youth Services Review*. 2012. <http://www.sciencedirect.com/science/article/pii/S0190740903001191>. Accessed July 10, 2017.

<sup>4</sup> Rumberger, R.; Student Mobility: Causes, Consequences, and Solutions. National Education Policy Center. 2015. <http://nepc.colorado.edu/publication/student-mobility>. Accessed January 2018.

<sup>5</sup> The Health and Well-Being of Minnesota's Adolescents of Color and American Indians: A Data Book. Minnesota Department of Health Web site. [http://www.health.state.mn.us/divs/chs/mss/specialreports/AdolescentsOfColor\\_REPORT120412.pdf](http://www.health.state.mn.us/divs/chs/mss/specialreports/AdolescentsOfColor_REPORT120412.pdf). Accessed January 2018.

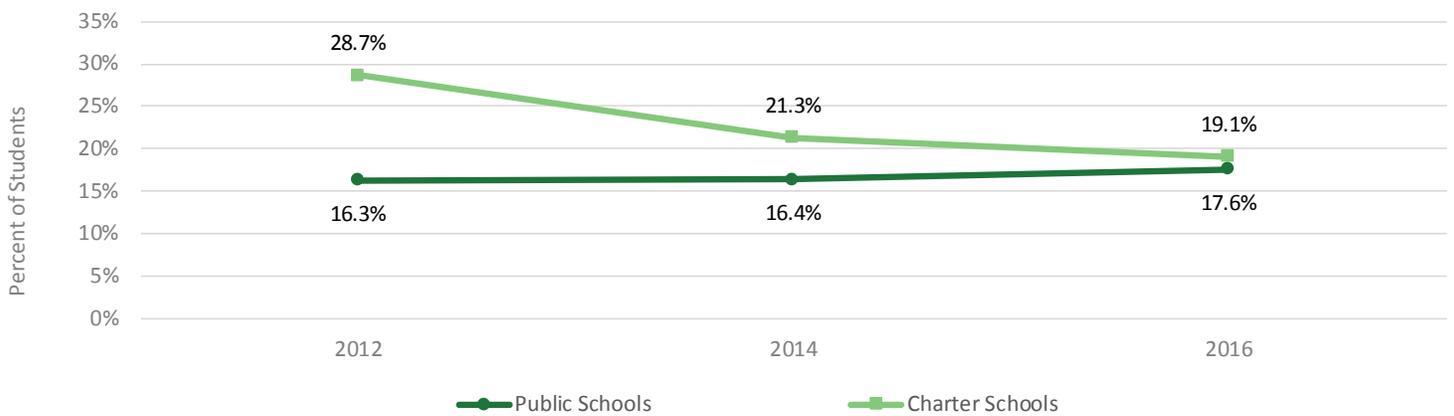
<sup>6</sup> Sparks, S., Student Mobility: How it Affects Learning 92016) *Education Weekly*. <http://www.edweek.org/ew/issues/student-mobility/index.html>. Accessed January 2018.

## Student Mobility, Ramsey County



Source: Data Reports and Analytics. Minnesota Department of Education.<sup>7</sup>

## Mid-Year Student Transfers In and Out, Ramsey County



Source: Data Reports and Analytics. Minnesota Department of Education.<sup>7</sup>

<sup>7</sup> Data Reports and Analytics. Minnesota Department of Education Web site. <http://w20.education.state.mn.us/MDEAnalytics/Data.jsp>. Accessed February 2018.

# Adverse Childhood Experiences (ACES)

## DESCRIPTION

An adverse childhood experience (ACE) describes a traumatic childhood experience that is remembered as an adult. They can have negative, lasting effects on health and well-being in both childhood or later in life.<sup>1</sup> ACEs have been linked to numerous negative outcomes in adulthood including: alcoholism, drug addiction, depression, suicide, poor physical health and obesity, lower educational attainment, unemployment and poverty.<sup>2</sup> In childhood, children who have experienced ACEs are more likely to struggle in school and have emotional and behavioral challenges.<sup>2</sup> People who have experienced multiple ACEs are much more likely to be negatively affected than those who have experienced only one.<sup>3</sup> The original ACE study<sup>1</sup> in 1998 asked a large sample of adults about seven childhood experiences. Since then, the list of ACEs used in several studies has expanded, therefore, ACE scores can be hard to compare. The ACE score, as calculated from the Minnesota Student Survey, ranges from 0 to 7, and is based on the number of the ACE conditions experienced by a student.

## HOW WE ARE DOING

Despite increasing attention and resources devoted to preventing ACEs and building resilient individuals and communities, ACEs remain common in the U.S. Over half (55 percent) of Minnesota adults report experiencing at least one ACE during childhood, and of those, most reported more than one.<sup>4</sup> Among all Ramsey County 8th, 9th and 11th graders, 24.7 percent reported an ACE and within that group, 47 percent reported two or more ACEs. The most common ACE among Ramsey County youth was having a parent or guardian in the past, or currently in jail/prison. This is followed by verbal abuse, physical abuse and living with someone who drinks too much.<sup>5</sup>

## DISPARITIES

Black and Hispanic youth in all regions of the U.S. are more likely to experience ACEs than their white and Asian peers.<sup>7</sup> When comparing ACEs prevalence between groups of Ramsey County students, disparities are evident. Among all Ramsey County students of color surveyed, 25 percent reported one or more ACEs, while among white students the rate was 21 percent. Among all Ramsey County females surveyed, 26 percent reported one or more ACEs, while among the male students surveyed the rate was 23 percent.<sup>5</sup>

## RISK FACTORS

ACEs' negative effects can be transmitted from one generation to the next.<sup>8</sup> Toxic stress experienced by women during pregnancy also negatively affects genetic "programming" during fetal development, which can contribute to a host of bad outcomes, sometimes much later in life. Infants born to women who experienced four or more childhood

## Information to note

- ACEs can make people physically and mentally ill.<sup>6</sup>
- 24.7% of the Ramsey County students surveyed reported one or more ACEs.
- The most common ACE reported among Ramsey County youth was having a parent/guardian in jail.
- Ace Conditions:
  - » They have a parent or guardian who is currently in jail, or has been in jail in the past.
  - » They live with someone who drinks too much alcohol.
  - » They live with someone who uses illegal drugs or abuses prescription drugs.
  - » A parent or other adult in the household has verbally abused them.
  - » A parent or other adult in the household has physically abused them.
  - » Parents or other adults in the home physically abuse each other.
  - » An adult or other person outside the family, and/or an older or stronger family member, has sexually abused them.

<sup>1</sup> Felitti VJ et al. Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The Adverse Childhood Experiences (ACE) Study. *Am J Prev Med.* 1998;14(4):245-258. <https://www.ncbi.nlm.nih.gov/pubmed/9635069>. Accessed February 2018.

<sup>2</sup> Bethell CD, Davis MB, Gombojav N, Stumbo S, Powers K. A national and across state profile on adverse childhood experiences among children and possibilities to heal and thrive. 2017. <http://www.cahmi.org/projects/adverse-childhood-experiences-aces/>. Accessed February 2018.

<sup>3</sup> Chartier MJ, Walker JR, Naimark B. Separate and cumulative effects of adverse childhood experiences in predicting adult health and health care utilization. *Child Abuse Neglect.* 2010;34(6), 454-464. <https://www.sciencedirect.com/science/article/pii/S0145213410000955>. Accessed March, 2018.

<sup>4</sup> Minnesota Department of Health. Stress and ACEs. <http://www.health.state.mn.us/divs/cfh/program/ace/stress.cfm>. Accessed March, 2018.

<sup>5</sup> Minnesota Student Survey 2016, Saint Paul - Ramsey County Public Health data base.

<sup>6</sup> Priest N, Paradies Y, Trenerry B, Truong M, Karlsen S, Kelly Y. A systematic review of studies examining the relationship between reported racism and health and wellbeing for children and young people. *Soc Sci Med.* 2013;95:115-127. <http://www.sciencedirect.com/science/article/pii/S0277953612007927>. Accessed March, 2018.

<sup>7</sup> Child Trends. The prevalence of adverse childhood experiences, nationally, by state and by race or ethnicity. 2018. <https://www.childtrends.org/publications/prevalence-adverse-childhood-experiences-nationally-state-race-ethnicity/>. Accessed February, 2018.

<sup>8</sup> Monk C, Feng T, Lee S, Krupska I, Champagne FA, Tycko B. Distress during pregnancy: epigenetic regulation of placenta glucocorticoid-related genes and fetal neurobehavior. *Am J Psychiat.* 2016;173(7), 705-713. <https://ajp.psychiatryonline.org/doi/abs/10.1176/appi.ajp.2015.15091171>. Accessed March, 2018.

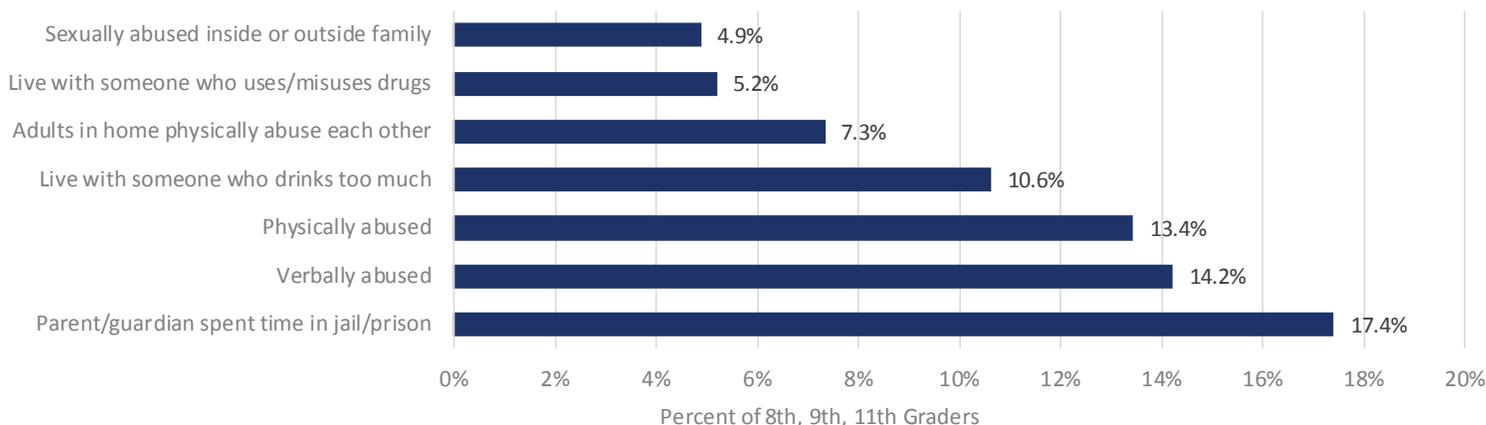
# Adverse Childhood Experiences (ACEs)

adversities were two to five times more likely to have poor physical and emotional health outcomes by 18 months of age.<sup>9</sup>

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

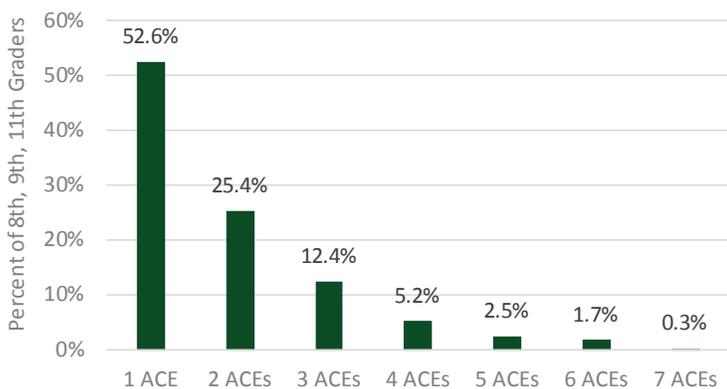
Preventing child abuse and neglect and improving economic stability for families is a priority for Ramsey County. The county's cross departmental Youth Continuum of Care (YCC) initiative is a long-term effort to look at the big picture of the county's programs and systems impacting youth. The YCC is the place where leaders from the county and community partners who serve youth ages 0-24 to discuss, collaborate, coordinate, prioritize and review our efforts to improve outcomes for Ramsey County youth.

Most Common ACEs Reported Among Students Experiencing ACEs, Ramsey County 8th, 9th, 11th Graders, 2016



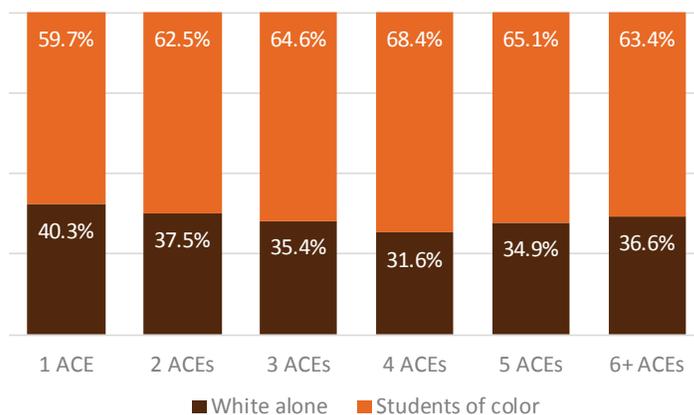
Source: Minnesota Student Survey, 2016; Saint Paul - Ramsey County Public Health.

Number of ACEs Among Students Reporting Any ACEs, Ramsey County 8th, 9th, 11th graders, 2016



Source: Minnesota Student Survey 2016, Saint Paul - Ramsey County Public Health.

Number of ACEs by Race, Ramsey County 8th, 9th, 11th Graders, 2016



Source: Minnesota Student Survey 2016, Saint Paul - Ramsey County Public Health.

<sup>9</sup> Madigan S, Wade M, Plamondon A, Maguire JL, Jenkins JM. Maternal Adverse Childhood Experience and Infant Health: Biomedical and Psychosocial Risks as Intermediary Mechanisms. *J Pediatr.* 2017;187, 282-289.e1. <http://www.sciencedirect.com/science/article/pii/S0022347617305991>. Accessed March, 2018.

# Bullying Among Youth

## DESCRIPTION

Bullying is a type of youth violence that can be described as any unwanted aggressive behavior(s) by another youth or group of youths, who are not siblings or current dating partners, involving an observed or perceived power imbalance. The behaviors are repeated multiple times or highly likely to be repeated. These instances of violence, either physical, psychological, social or educational, threaten the well-being of youth and can cause a multitude of issues. The harmful effects of bullying are frequently felt by friends and families and can hurt the overall health and safety of schools, neighborhoods, and society.<sup>1</sup>

## HOW WE ARE DOING

In Ramsey County in 2016, 16 percent of students reported being pushed, shoved, slapped, hit or kicked by other students in the 30 days preceding the survey. Of these, four percent experienced this behavior at least once a week. Bullying, overall, tends to decrease as grade levels increase. For example, about 28 percent of 5th graders reported being bullied, while only six percent of 11th graders reported the same.<sup>2</sup> However, looking at individual age groups, 40.6 percent of 12-year-olds reported experiencing this behavior, the highest of all surveyed ages. The percent of students who report that they bullied someone else is lower than the percent of students who report being bullied, for every grade. For those who report that they bullied others, threatening and violent behaviors decrease with age, following the trend of responses for the victims of bullying. Along with this, the gap between students reporting being bullied and those reporting bullying shrinks as grade level increases.<sup>2</sup>

## BENCHMARK INDICATOR

Healthy People 2020<sup>3</sup>: Reduce bullying among students in grades 9-12.

U.S. Target: 17.9 percent of students.

## DISPARITIES

Gender minority and transgender students are far more likely to experience violence, bullying and exclusion within Ramsey County schools. In 2016, 40 percent of 11th graders and 42 percent of 9th graders reported being bullied for their gender expression at least once in the 30 days preceding the survey.<sup>2</sup> Somali students are three times more likely to report being the target of bullying due to their ethnicity (20.5 percent) than are white students.

## RISK FACTORS

While there is no single major predictor for a young person becoming violent, children who have these factors are more likely to bully others<sup>4</sup>: are aggressive or easily frustrated, have less parental involvement or have difficulties at home, think badly of others, have difficulty following rules, view violence in a positive way, and have friends who bully others. There are also risk factors that may help identify children at risk of being bullied: they are perceived as different from their peers in an outward way (being overweight or underweight, being new to a school or environment, or wearing different clothing), seen as weak or unable to defend themselves, are depressed, anxious or have low self-esteem, are less popular and/or have few friends and do not easily get along with others, are seen as annoying or provoking, or antagonize others for attention.

(continued on back)

## Information to note

- Bullying, overall, tends to decrease as grade levels increase.
- 12-year-olds reported experiencing physical violence in Ramsey County schools most often.
- 40.6 percent of 12-year-olds in Ramsey County schools reported being bullied in 2016.

<sup>1</sup> Bullying Research. Centers for Disease Control and Prevention. <https://www.cdc.gov/violenceprevention/youthviolence/bullyingresearch/index.html>. Accessed May 29, 2018.

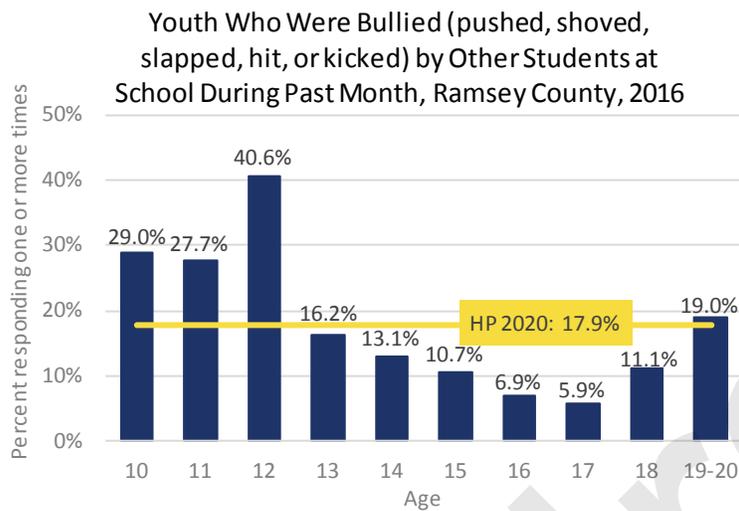
<sup>2</sup> Minnesota Student Survey 2013-2016. Minnesota Department of Education. <http://w20.education.state.mn.us/MDEAnalytics/DataTopic.jsp?TOPICID=242>. Accessed May 29, 2018.

<sup>3</sup> Injury and Violence Prevention. Healthy People 2020. [https://www.healthypeople.gov/node/4773/data\\_details](https://www.healthypeople.gov/node/4773/data_details). Accessed August 2018.

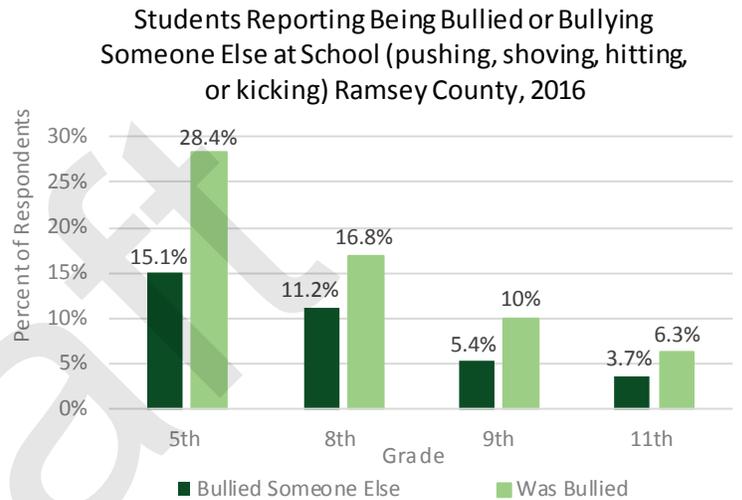
<sup>4</sup> Who is at Risk. Stop Bullying. <https://www.stopbullying.gov/at-risk/index.html>. Accessed March 28, 2018.

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

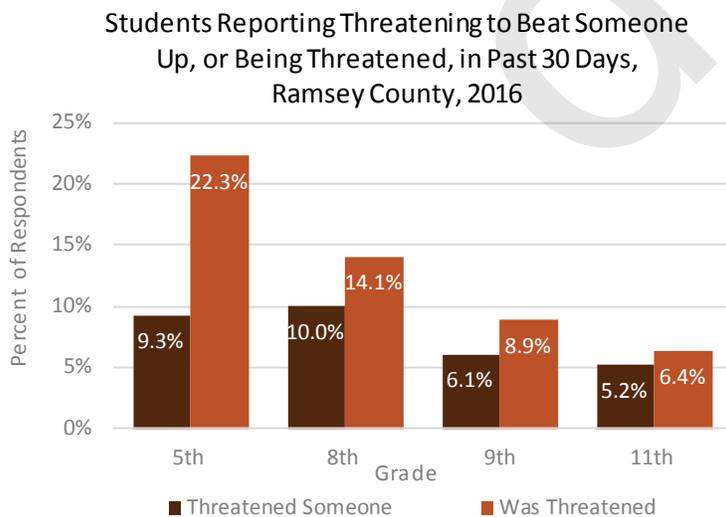
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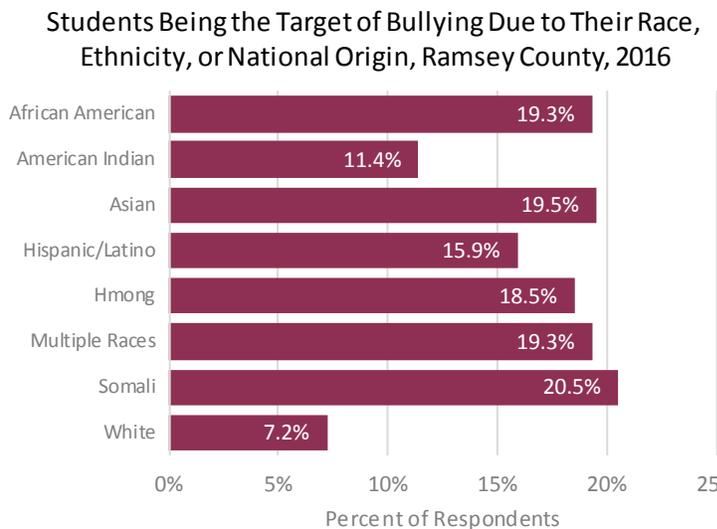
Source: Minnesota Student Survey.<sup>5</sup>



Source: Minnesota Student Survey.<sup>5</sup>



Source: Minnesota Student Survey.<sup>5</sup>



Source: Minnesota Student Survey.<sup>5</sup>

<sup>5</sup> Minnesota Student Survey. Minnesota Department of Education Website. <http://w20.education.state.mn.us/MDEAnalytics/DataTopic.jsp?TOPICID=242>. Accessed March 23, 2018.

## DESCRIPTION

Maltreatment not only disrupts children's current development but, if not addressed appropriately, can also have long-term consequences on their development, health and well-being.<sup>1</sup> Child maltreatment can negatively impact communities, schools, the economy, and future generations through the transmission of maltreatment from one generation to the next.<sup>1</sup> Minnesota Statutes recognize six types of maltreatment: neglect, physical abuse, sexual abuse, mental injury, emotional harm, medical neglect and threatened injury.<sup>2</sup> Once a report of maltreatment is received, child protection staff review the information and determine if the alleged maltreatment meets the statutory threshold. If it does, staff "screen-in" the maltreatment report for assessment or investigation.

## HOW WE ARE DOING

Local child protection agencies across Minnesota received 75,624 reports of child maltreatment in 2016-an 11.2 percent increase over 2015.<sup>3</sup> There were 26 child deaths and 36 life-threatening injuries resulting from maltreatment in 2016 in the state.<sup>1</sup> In 2016, there were 3,300 unique Ramsey County children in screened-in maltreatment reports.<sup>3</sup> Most children were ages birth to two, followed by children six to eight. Just over 37 percent of children were African-American, 4.4 percent were American Indian, 13.3 percent were Asian, 28.8 percent were white, 13.4 percent were two or more races. Hispanic/Latino children of any race made up 11.3 percent of screened-in reports. Neglect was the most common maltreatment type (63.3 percent) in Ramsey County in 2016 followed by physical abuse (33.7 percent) and sexual abuse (12.5 percent).<sup>3</sup>

## BENCHMARK INDICATOR

Minnesota performance standards:<sup>4</sup>

- 1) Percentage of alleged victims who were seen in face-to-face visits within the time limit. Target: 100%
- 2) Percent of children who had a subsequent maltreatment report within 12 months. Target: Under 15.2%

## DISPARITIES

Racial disparities in child maltreatment reporting have persisted in Minnesota many years. As of 2016, American Indian children were 5.2 times more likely to be involved in a child protection assessment/ investigation than white children while children who identify with two or more races and African-American children were both about three times more likely.<sup>1</sup>

## RISK FACTORS

Risk factors for child maltreatment include the age and number of children in the family, special needs of children, the mental health of caregivers, low socio-economic status, rural residence, race/ethnicity of children, family structure and family stressors.<sup>5</sup> Parental alcohol and substance use is a known risk factor for child maltreatment.<sup>6</sup>

## Information to note

- Ramsey County had the second highest rate of child maltreatment in the 7-county Metro in 2016.
- There are large racial disparities related to child maltreatment.

<sup>1</sup> Harvard Center on the Developing Child. InBrief. <https://46y5eh11fhgw3ve3ytpwxt9r-wpengine.netdna-ssl.com/wp-content/uploads/2015/05/inbrief-adversity-1.pdf>. Accessed May 29, 2018.

<sup>2</sup> 2017 Minnesota Statutes 626.556. <https://www.revisor.mn.gov/statutes/?id=626.556>. Accessed May 29, 2018.

<sup>3</sup> Minnesota Department of Human Services. Minnesota's Child Maltreatment Report 2016. <https://edocs.dhs.state.mn.us/lfservlet/Public/DHS-54081-ENG>. Published October 2017. Accessed May 29, 2018.

<sup>4</sup> Minnesota Department of Human Services. Child Welfare Dashboard. <https://mn.gov/dhs/partners-and-providers/news-initiatives-reports-workgroups/child-protection-foster-care-adoption/child-welfare-data-dashboard/>. Accessed May 29, 2018.

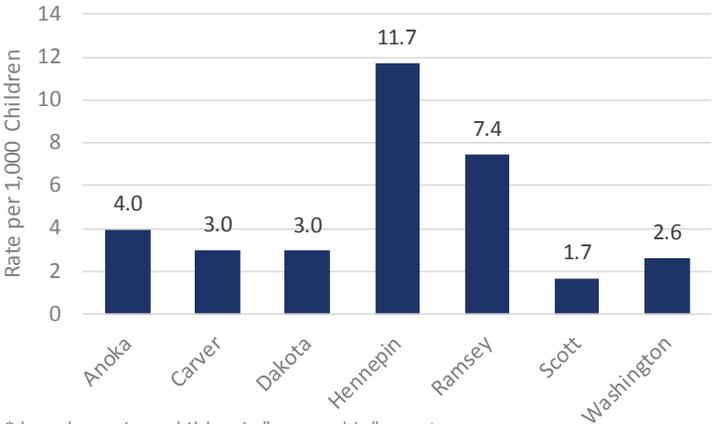
<sup>5</sup> Fourth national incidence study of child abuse and neglect. National Incidence Study of Child Maltreatment (NIS4) [https://ncwwwi.org/files/Cultural\\_Responsiveness\\_Disproportionality/NIS-4\\_Executive\\_Summary.pdf](https://ncwwwi.org/files/Cultural_Responsiveness_Disproportionality/NIS-4_Executive_Summary.pdf). Accessed May 2018.

<sup>6</sup> Children's Bureau. Parental drug use as child abuse. 2015. <https://www.childwelfare.gov/pubPDFs/drugexposed.pdf>. Accessed May 29, 2018.

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

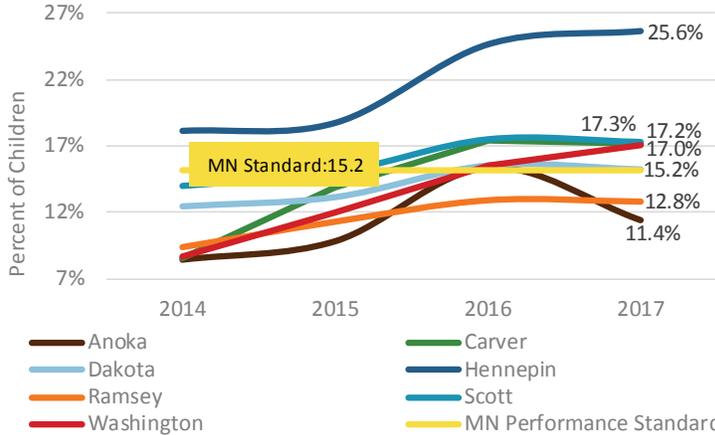
Ramsey County takes protection of children very seriously. The County Board’s strategic priorities include advancing racial and health equity, building economic prosperity for County residents and enhancing the continuum of care for youth and families which should all contribute to reducing child maltreatment. Ramsey County continues to make timely response to child protection reports a high priority and is working to increase services and supports available to families. The County is also continuing efforts to identify and reduce racial disparities while children and families are receiving County services.

Rate of Child Maltreatment\* by Metro County, 2016



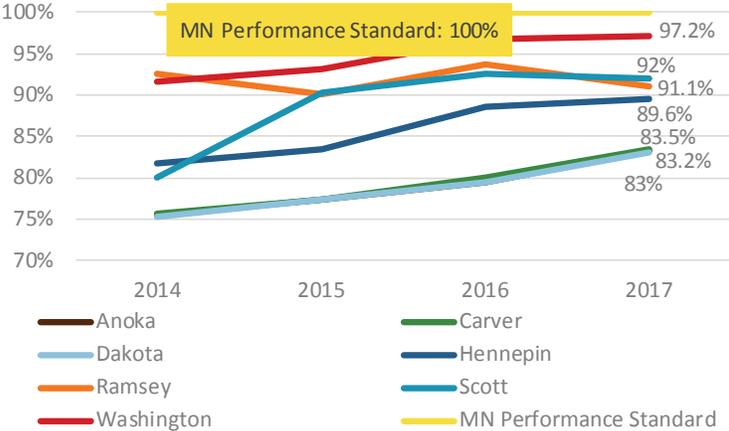
\* based on unique children in "screened-in" reports  
Source: Minnesota Department of Human Services.<sup>7</sup>

Children with a Subsequent Maltreatment Report Within 12 Months by Metro County



Source: Minnesota Department of Human Services.<sup>8</sup>

Alleged Victims of Child Maltreatment with a Face to Face Visit Within Time-Limit Specified in State Statute by Metro County



Source: Minnesota Department of Human Services.<sup>8</sup>

<sup>7</sup> Source: Minnesota Department of Human Services. Minnesota’s Child Maltreatment Report 2016.

<sup>8</sup> Source: Minnesota Department of Human Services. Child Welfare Dashboard. <https://mn.gov/dhs/partners-and-providers/news-initiatives-reports-workgroups/child-protection-foster-care-adoption/child-welfare-data-dashboard/>. Accessed May 29, 2018.

# Out-of-Home Placement - Youth

## DESCRIPTION

Children are placed in out-of-home care when a child protective services worker and a court have determined that it is not safe for the child to remain at home, because of a risk of maltreatment, including neglect and physical or sexual abuse. Arrangements include non-relative foster homes, relative foster homes (also known as “kinship care”), group homes, institutions, and pre-adoptive homes.

Because of their history, children in foster care are more likely than other children to exhibit high levels of behavioral and emotional problems. They are also more likely to be suspended or expelled from school, and to exhibit low levels of school engagement and involvement with extracurricular activities. Children in foster care are also more likely to have received mental health services in the past year, to have a limiting physical, learning, or mental health condition, or to be in poor or fair health.<sup>1</sup> One study found that almost 60 percent of young children (ages two months to two years) in foster care were at a high risk for a developmental delay or neurological impairment.<sup>2</sup> Nearly half of children in foster care, according to another study, had had four or more “adverse family experiences”- potentially traumatic events that are associated with multiple poor outcomes in childhood and adulthood.<sup>3</sup>

## HOW WE ARE DOING

There were 829 Ramsey County children who were removed from their homes in 2017 (6.6 per 1,000 children).<sup>4</sup> This was the highest rate among metro counties. Similarly, from 2014 to 2016, Ramsey County had the highest rates of children in care among all metro counties.<sup>5</sup> Ramsey County meets the federal standard for children removed from their homes to be reunited with their family or in a permanent home within 12 months but disparities exist. In 2016, Ramsey County African-American children removed from their homes were most likely to achieve permanency within 12 months (65%) and American Indian children were least likely to achieve permanency (33%) and fell below the federal standard. Asian, white, Hispanic/Latino and multi-racial children met the standard. In 2015 American Indian children achieved permanency 38% of the time and were again below the federal permanency standard.<sup>5</sup>

## BENCHMARK INDICATOR

Federal standards expect that all children removed from their homes be in a permanent home within 12 months (usually by reunification or adoption).<sup>1</sup>

U.S. Target: 40.5% or greater

## DISPARITIES

Ramsey County children of color are overrepresented in the out-of-home placement system compared to the number in the general population. African- American/black children were almost twice as likely to be in out-of-home care than their white counterparts during 2014-2016.<sup>5</sup>

(continued on next page)

## Information to note

- Ramsey County has the highest rates of children in out-of-home care in the metro area.
- In Ramsey County during 2014-2016, there were almost twice the number of black children in out-of-home care than their white counterparts.

<sup>1</sup>Kortenkamp K, Ehrle J. The well-being of children involved with the child welfare system: A national overview. The Urban Institute. 2002; Series B, No. B-43. [http://www.urban.org/UploadedPDF/310413\\_anf\\_b43.pdf](http://www.urban.org/UploadedPDF/310413_anf_b43.pdf). Published January 15, 2002. Accessed May 2018.

<sup>2</sup>Vandiver S, Chalk R, Moore K. Children in foster homes: How are they faring? Trends Child. 2003;2003-23. <https://www.childtrends.org/wp-content/uploads/2013/03/FosterHomesRB.pdf>. Published December 1, 2003. Accessed May 2018.

<sup>3</sup>Bramlett MD, Radel LF. Adverse family experiences among children in nonparental care, 2011-2012. National Health Statistics Reports. 2014; 74, 1-8. <http://www.cdc.gov/nchs/data/nhsr/nhsr074.pdf>. Published May 7, 2014. Accessed May 2018.

<sup>4</sup>Minnesota Department of Human Services. Child Welfare Dashboard. <https://mn.gov/dhs/partners-and-providers/news-initiatives-reports-workgroups/child-protection-foster-care-adoption/child-welfare-data-dashboard/>. Accessed May 2018.

<sup>5</sup>Minnesota Department of Human Services. Child Welfare Reports and Out-of-home Care and Permanency Reports.

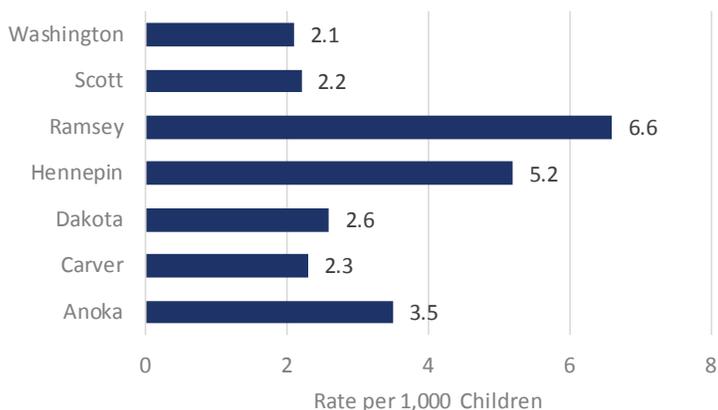
## RISK FACTORS

Risk factors for out-of-home placement include the age and number of children in the family, special needs of children, the presence of alleged perpetrators in the household and the capacity of caregivers to provide a safe environment.

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

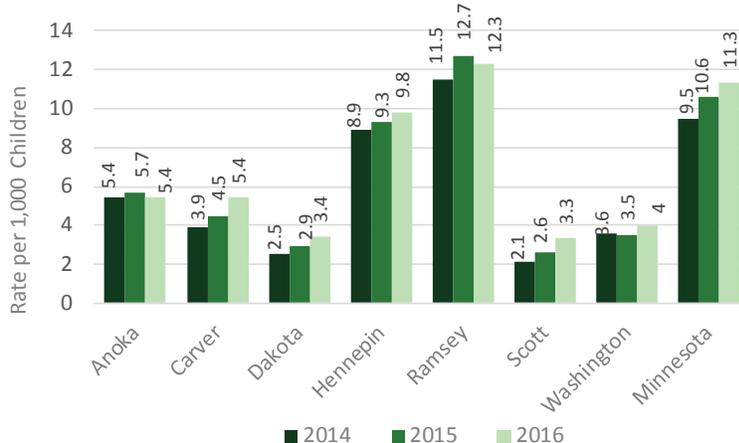
Ramsey County is focusing on ways to safely decrease entries into our child welfare system and to increase timely exits from care.

Rates of New Out-of-Home Placements, 2017



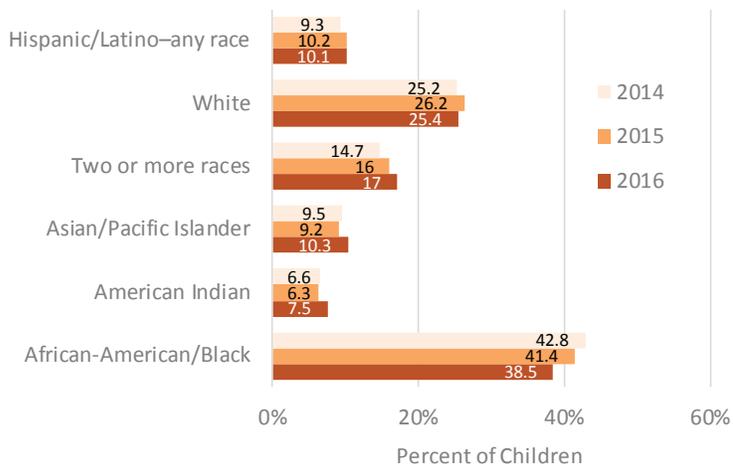
Source: Minnesota Department of Human Services.<sup>6</sup>

Rates of All Out-of-home Placements by Metro County and Minnesota



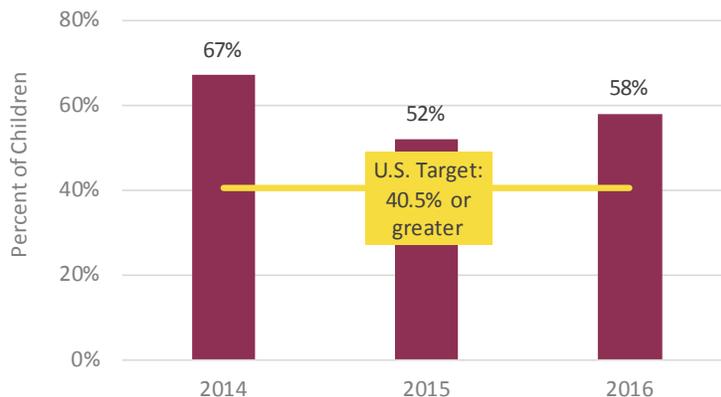
Source: Department of Human Services.<sup>7</sup>

Children in Out-of-Home Care, Ramsey County



Source: Department of Human Services.<sup>7</sup>

Children in Placement Who Are Reunited With Family or Placed in Permanent Homes Within 12 Months, Ramsey County



Source: Minnesota Department of Human Services.<sup>8</sup>

<sup>6</sup> Minnesota Department of Human Services. Child Welfare Dashboard.

<sup>7</sup> Department of Human Services. Child Welfare Reports.

<sup>8</sup> Minnesota Department of Human Services Child and Family Service Review. <https://edocs.dhs.state.mn.us/lfserver/Public/DHS-54081a-ENG>. Accessed May 23, 2018.

# Early Childhood Screening

## DESCRIPTION

Early childhood screening is an assessment performed by school districts that identifies potential developmental problems in infants and young children. The screening identifies the potential need for a more intensive diagnostic assessment or educational evaluation.<sup>1</sup> Early childhood screening is required for admittance into all Minnesota public schools and supports preparedness for kindergarten. It is recommended to take place before kindergarten, typically when a child is between three to four years old.<sup>2</sup> Within the first 30 days of kindergarten, school districts screen children who were not screened earlier.

## HOW WE ARE DOING

In the 2016-2017 school year, 77.7 percent of Ramsey County children were screened before age five. This was only slightly lower than the state (80.5 percent) for the same school year.<sup>3</sup> Most Ramsey County children were age four when they were screened.<sup>3</sup> Between 2005 and 2015, there was a 13.4 percent increase in children who were screened before age five.<sup>3</sup> Even though most early childhood screening is occurring before kindergarten entrance, there are still students who are completing their screening after they begin school. During 2013 to 2016, an average of 9 percent of students had not been screened before the first day of kindergarten, which is double the state percentage.<sup>3</sup> If a statement signed by the child's parent or guardian is submitted to the school that the child has not been screened because of conscientiously held beliefs of the parent or guardian, the screening is not required.<sup>2</sup>

## BENCHMARK INDICATOR

Minnesota Law<sup>2</sup>: Increase the proportion of children who receive early childhood screening before kindergarten.

Minnesota Target: 100 percent of children

## DISPARITIES

Children from lower-income families, Hispanic/Latino children, and American Indian children have the lowest rates of kindergarten readiness<sup>4</sup>; defined as having received screening, and necessary immunizations.<sup>5</sup>

## RISK FACTORS

Parents/guardians who do not realize that early childhood screening is an admission requirement for school might not initiate the screening process until a school demands it. This could delay needed intervention for a child who needs help.

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

Saint Paul – Ramsey County Public Health began a process in 2017 to share information with the Saint Paul Public Schools (SPPS) regarding children enrolled in WIC. This will enable SPPS to contact the children's families to encourage them to come in for their early childhood screening. This data sharing may be expanded to all Ramsey County school districts in the future.

## Information to note

- During the past three school years, an average of 73.9% of Ramsey County children were screened before age five - the lowest rate in the 7-county metro area.

<sup>1</sup> Early Childhood Screening. Minnesota Department of Health. <https://education.mn.gov/MDE/dse/early/scr/>. Accessed August 2, 2018.

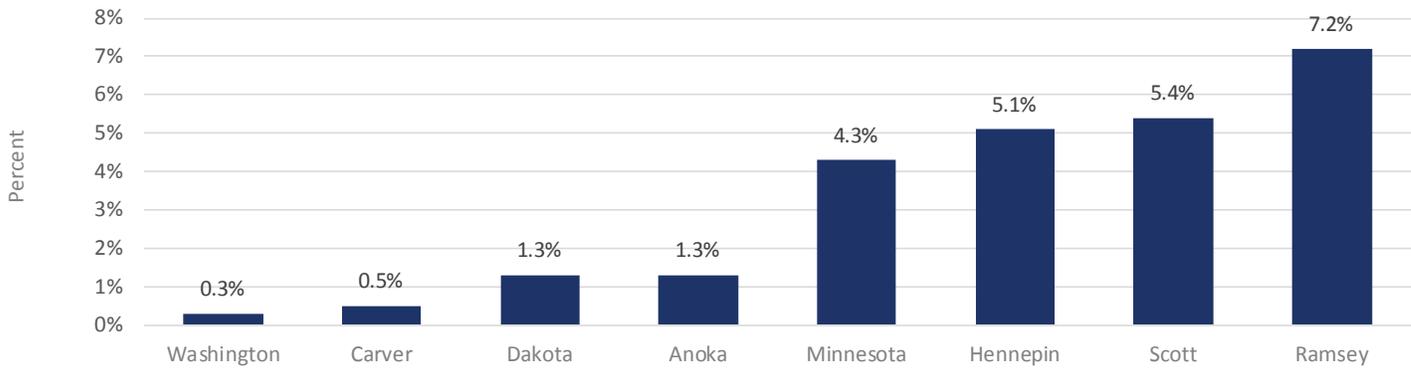
<sup>2</sup> 2017 Minnesota Statutes 121A.17. The Office of the Revisor of Statutes. <https://www.revisor.mn.gov/statutes/cite/121a.17>. Accessed August 2018.

<sup>3</sup> Early Childhood Screening (data). Minnesota Department of Education. <http://w20.education.state.mn.us/MDEAnalytics/DataTopic.jsp?TOPICID=290>. Accessed August 3, 2018.

<sup>4</sup> Chase R. All Kids Ready for Kindergarten. Amherst H. Wilder Foundation. 2013. <https://www.wilder.org/articles/all-kids-ready-kindergarten>. Published November 25, 2013. Accessed August 2, 2018.

<sup>5</sup> School Readiness. Minnesota Department of Education. <https://education.mn.gov/MDE/dse/early/read/>. Accessed August 2, 2018.

Children Screened after Kindergarten Start Deadline,  
Public School Districts, 2015-16



Source: Minnesota Department of Education.<sup>6</sup>

<sup>6</sup> Early Childhood Screening (data). Minnesota Department of Education Website. <http://w20.education.state.mn.us/MDEAnalytics/DataTopic.jsp?TOPICID=290>. Accessed August 3, 2018.

## DESCRIPTION

School attendance rates are a significant factor for high school graduation. The Minnesota Department of Education (MDE) classifies three levels of attendance. An attendance level of 94.5- 100 percent for a given school year is considered low risk for dropping out, and is the attendance-goal for all schools. The moderate risk classification is 89- 94.4 percent attendance, and the highest risk for dropping out of school is 89 percent or lower attendance for a given school year per student.<sup>1</sup>

## HOW WE ARE DOING

Over an eight-year period, Ramsey County's public schools have an average attendance of 94.4 percent per student; just on the cusp of the MDE low risk category. Average rates of attendance drop around grade 5, and reach their lowest point during the senior year of high school for most students. By grade 12, attendance rates for students in Ramsey County were 88.7 percent in 2016. This is 5.8 percentage points below the Minnesota target and 6.5 percentage points below the attendance rate of elementary school students in Ramsey County.<sup>2</sup>

## BENCHMARK INDICATOR

Minnesota Department of Education: Increase the average public school student attendance rate by year

Minnesota Target: 94.5%-100%

## DISPARITIES

School attendance rates by grade tend to decrease after grade 5, and then decline rapidly once a student reaches 9th grade. The rates continuously decrease, with 12th graders having the lowest rates. Minnesota has the lowest amount of funding dedicated to non-classroom support in the U.S. This can add barriers for schools and teachers attempting to help students who are having difficulty with attendance.<sup>3</sup>

## RISK FACTORS

The educational attainment of the parent or guardian of a child is very influential on their views toward school. If a parent finds school a waste of time, the student is going to attend less often and spend less energy on their academic performance. The Minnesota Department of Education identified a link between maternal education and student attendance in the early years. The lower the mother's education at the time of the child's birth, the more likely the child was to accrue numerous absences.<sup>4</sup>

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

The Youth Engagement Program (YEP) works with teens age 12-18 who are identified as truants from public schools. YEP staff address issues causing truancy and provide resources to youth and their families. Child Protection staff work in a similar manner with children under 12. Child Protection staff work with school districts to provide educational stability for children placed in foster care. This may include transportation to ensure children are able to attend their original school.

## Information to note

- Between 2008 – 2016, Ramsey County public school students had an average attendance rate of 94.4%.
- The lower the mother's education at the time of a child's birth, the more likely the child will accrue numerous absences.

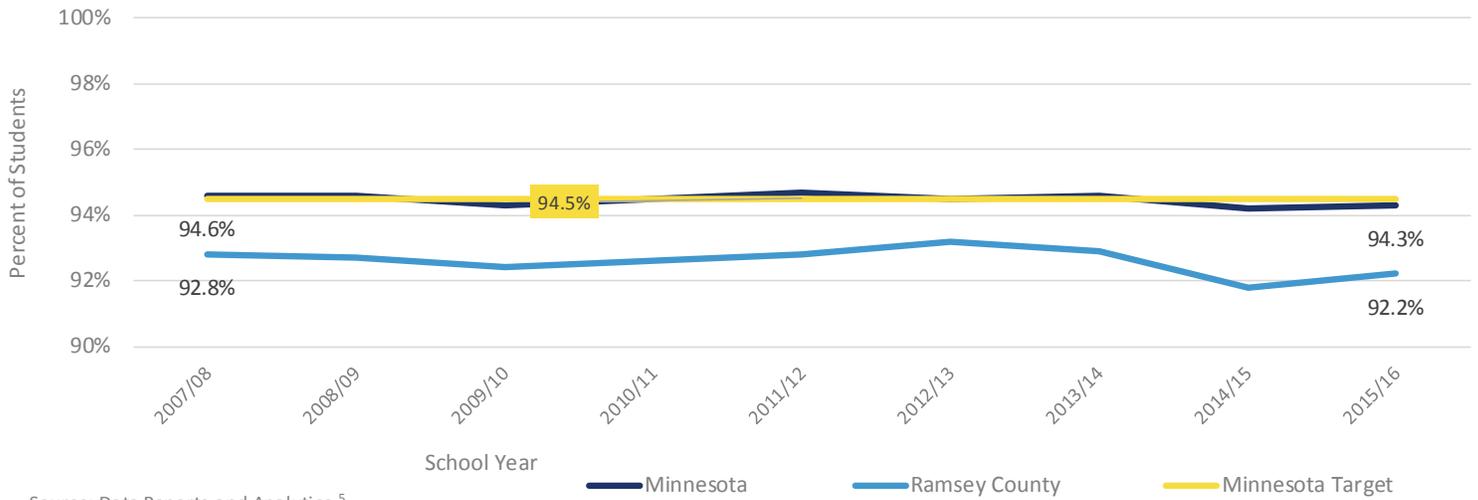
<sup>1</sup> Chang HN, Romero M. Present, engaged, and accounted for. The critical importance of addressing chronic absence in the early grades. National center for Children in Poverty. 2008. [http://www.nccp.org/publications/pub\\_837.html](http://www.nccp.org/publications/pub_837.html). Published September 2008. Accessed July 12, 2017.

<sup>2</sup> Data & Analytics. Minnesota Department of Education. <http://w20.education.state.mn.us/MDEAnalytics/Data.jsp>. Accessed July 12, 2017.

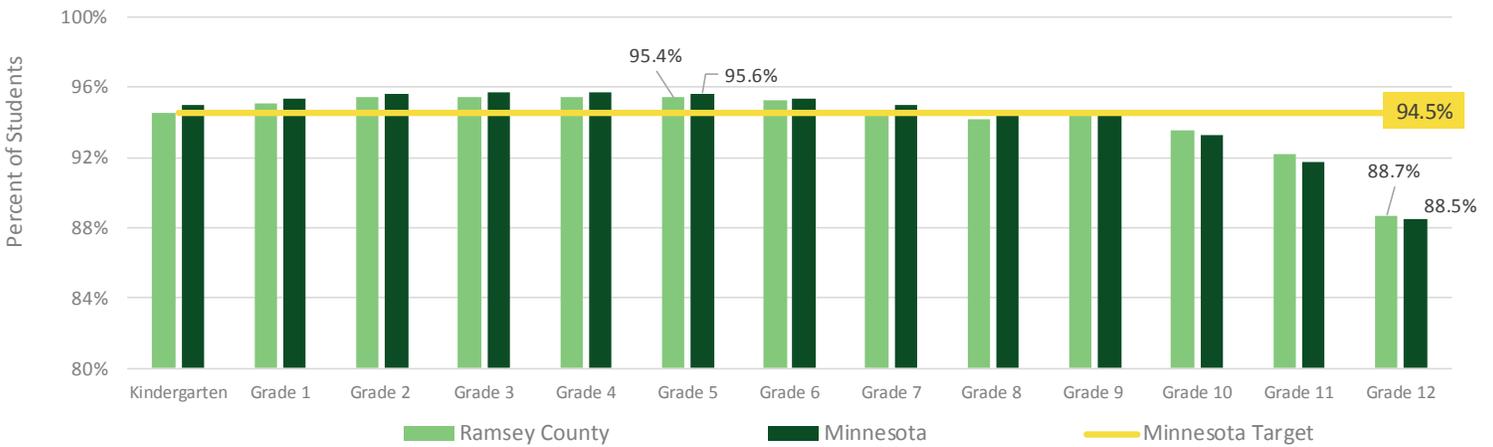
<sup>3</sup> Public Education Finances: 2014. United States Census Bureau. <https://www.census.gov/content/dam/Census/library/publications/2016/econ/g14-aspef.pdf>. Updated June 9, 2016. Accessed July 12, 2017.

<sup>4</sup> Minnesota Early Childhood Longitudinal Data System. Minnesota Department of Education. <http://ecls.mn.gov/>. Accessed July 12, 2017.

## K-12 Public School Attendance Rates



## K-12 Public School Attendance by Grade, 2015-16



<sup>5</sup> Data Reports and Analytics. Minnesota Department of Education Web site. <http://w20.education.state.mn.us/MDEAnalytics/Data.jsp>. Accessed July 19, 2017.

# School - Dropping Out

## DESCRIPTION

This indicator describes dropout rates for students attending high school in Ramsey County. This information is valuable, as it describes who is dropping out and from which schools, and potentially why students are not finishing high school. Efforts to reduce high school dropout rates are important because it is well known that youth who don't have a high school degree have a more difficult time finding employment.

## HOW ARE WE DOING

Between 2003 and 2016, Ramsey County school districts saw a decrease in dropout rates of about 1.2 percent, although there has been fluctuation over time. The average rate over 13 years is 8.4 percent, with the lowest rate occurring in 2011 at 6.9 percent. Compared to state levels, Ramsey County has consistently higher dropout rates. During the same 13-year period, the Minnesota dropout rate decreased 2.7 percent. The Minnesota average rate was 5.8 percent, with the lowest rate also occurring in 2011 at 4.8 percent.<sup>1</sup>

## DISPARITIES

There are higher dropout rates among African-American students, English language learners, Hispanic students, and students who utilize the Free and Reduced Price Lunch program compared to other students. Males are more likely to drop out of high school than females.<sup>2</sup>

## RISK FACTORS

An attendance rate below 89 percent for a school year increases the likelihood that a student will drop out.<sup>3</sup>

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

Ramsey County Workforce Solutions provides multiple services from prevention to resources for residents interested in finishing their high school education. Workforce Solutions provides career counselor interns in four of Saint Paul's public schools to mentor students on their education and career options. These mentors work with students directly by supporting the efforts of the schools' professional guidance counselors. Ramsey County also provides GED services through partnering with community non-profits that assist residents in achieving their GED. For nearly five years, Ramsey County has provided culturally specific employment services to communities experiencing significant outcome disparities. These services directed at African American and American Indian MFIP families have been successful at improving literacy for children and improving parent engagement in education and increasing parent earnings which are each key risk factors associated with students dropping out of high school.

## Information to note

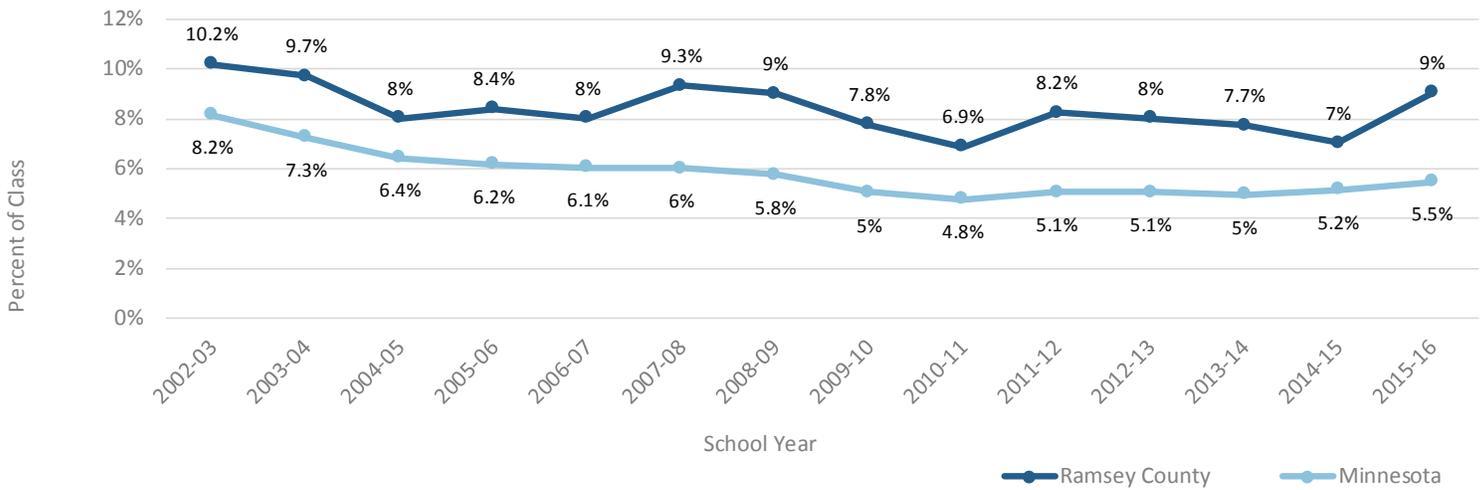
- Between 2003 and 2016, Ramsey County's high school dropout rate decreased from 10.2% to 9%.
- An attendance rate below 89% for a school year increases the likelihood that a student will drop out.

<sup>1</sup> Data Reports and Analytics. Minnesota Department of Education Web site. <http://w20.education.state.mn.us/MDEAnalytics/Data.jsp>. Accessed June 13, 2017.

<sup>2</sup> Minnesota Report Card. Minnesota Department of Education Web site. <http://rc.education.state.mn.us/#>. Accessed

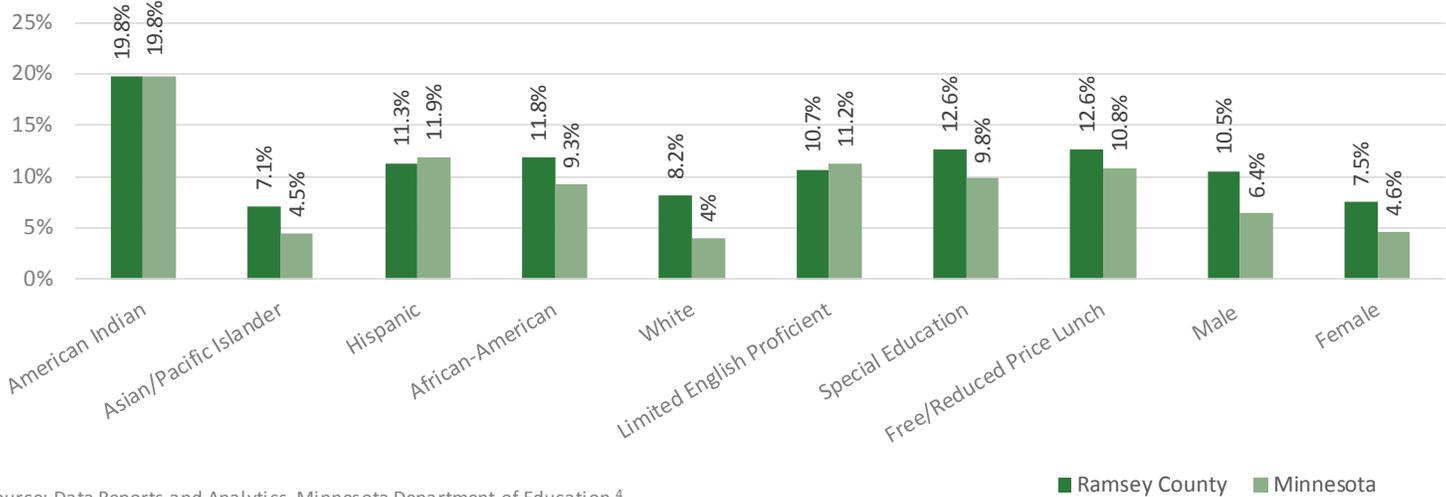
<sup>3</sup> Chang, H. & Romero, M. Present, engaged, and accounted for. The critical importance of addressing chronic absence in the early grades. 2016. Columbia University: National center for Children in Poverty. [http://www.nccp.org/publications/pub\\_837.html](http://www.nccp.org/publications/pub_837.html). Accessed June 13, 2017.

### Four-Year High School Drop Out Rates



Source: Data Reports and Analytics. Minnesota Department of Education.<sup>4</sup>

### School Dropout Rates by Select Populations, 2015-16



Source: Data Reports and Analytics. Minnesota Department of Education.<sup>4</sup>

<sup>4</sup> Data Reports and Analytics. Minnesota Department of Education Web site. <http://w20.education.state.mn.us/MDEAnalytics/Data.jsp>. Accessed June 13, 2017.

## DESCRIPTION

On-time graduation is calculated using first time ninth-grade students, including incoming transfers, and subtracting transfers out of a school within a four-year period. These rates are an important piece of determining the health of the community, as research has heavily linked education to health and longevity.<sup>1</sup> Research has also shown that students who do not earn a high school diploma have fewer job opportunities and lower earning potential which affects them throughout their lives, and negatively impacts their families and the community.<sup>2</sup>

## HOW ARE WE DOING

The method of determining graduation rates has changed over the past few years, and the Healthy People 2020 target has shifted upward from 82.4 percent to 87 percent due to new research methods that obtain more accurate data. Ramsey County's on-time graduation rate increased 14.4 percent between 2003 and 2017. In the 2016-2017 school year, there was an on-time graduation rate within Ramsey County public schools of 77.1 percent. Minnesota graduation rates also increased, growing from 72.5 percent in 2003, to 82.2 percent in 2016.<sup>3</sup> Compared to the Healthy People 2020 target of 87 percent, Ramsey County still has room for improvement.<sup>3</sup>

## BENCHMARK INDICATOR

Healthy People 2020: Increase the number of students who graduate with a regular diploma four years after starting ninth grade.

U.S. Target: 87 percent

## DISPARITIES

American Indian students had the lowest on-time graduation rate at 50 percent in 2016. Statewide in the past five years, English learning students, African-American students, students receiving free and reduced priced meals, and Hispanic students experience lower rates of on-time graduation and higher dropout rates than other students.<sup>4</sup>

## RISK FACTORS

The following demographic indicators have been shown to be most common in students at highest risk of not completing high school on time, or graduating: being male; being older than the average student; being a member of a low-income family; or being a member of a racial or ethnic minority group.<sup>5</sup>

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

Since the program's inception in 2003, the graduation rate for teen parents enrolled in the Saint Paul – Ramsey County Public Health MFIP Teen Parent Program has continued to increase from 33% initially, to the 2017 rate of 77%. Total number of teen parents enrolled in the program have decreased, to a large degree as a result of the significant decline in teen pregnancies in Ramsey County. Teen parents report that consistent public health nursing and social work staff who establish positive, trusting relationships with them and who are knowledgeable about school options, child care alternatives, and support their successes, assist them in accomplishing their goals while also helping them through pregnancy and understanding their infant's and toddler's needs and development.

## Information to note

- On-time graduation rates for Ramsey County school districts have increased by about 17% since 2003, yet still do not meet national targets.
- Statewide over the past five years, English learning students, African-American students, students using free and reduced priced meals, and Hispanic students continue to experience lower rates of on-time graduation and higher dropout rates than other students.

<sup>1</sup> Why Does Education Matter so Much to Health? Robert Wood Johnson Foundation. [http://www.rwjf.org/content/dam/farm/reports/issue\\_briefs/2012/rwjf403347](http://www.rwjf.org/content/dam/farm/reports/issue_briefs/2012/rwjf403347). Accessed June 13, 2017.

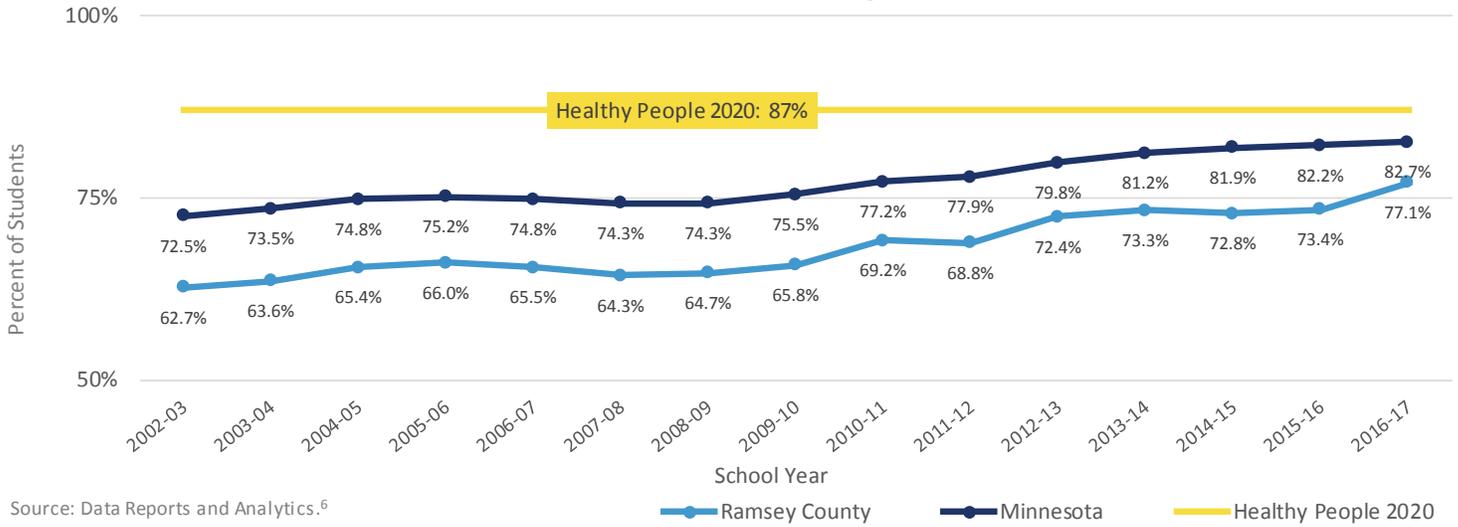
<sup>2</sup> Healthy People 2020. U.S. Department of Health and Human Services Web site. <http://www.healthypeople.gov/2020/LHI/socialDeterminants.aspx?tab=data#AH-5.1>. Accessed June 13, 2017.

<sup>3</sup> Minnesota Report Card. Minnesota Department of Education Web site. <http://rc.education.state.mn.us/#>. Accessed June 13, 2017.

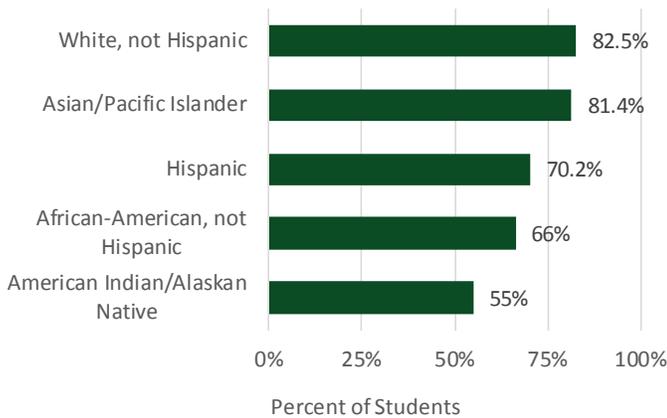
<sup>4</sup> Data Reports and Analytics. Minnesota Department of Education Web site. <http://w20.education.state.mn.us/MDEAnalytics/Data.jsp>. Accessed June 13, 2017.

<sup>5</sup> Dropping Out of High School: Prevalence, Risk Factors, and Remediation Strategies. R & D Connections Web site. [https://www.ets.org/Media/Research/pdf/RD\\_Connections18.pdf](https://www.ets.org/Media/Research/pdf/RD_Connections18.pdf). Accessed June 13, 2017.

## On-Time Graduation from High School

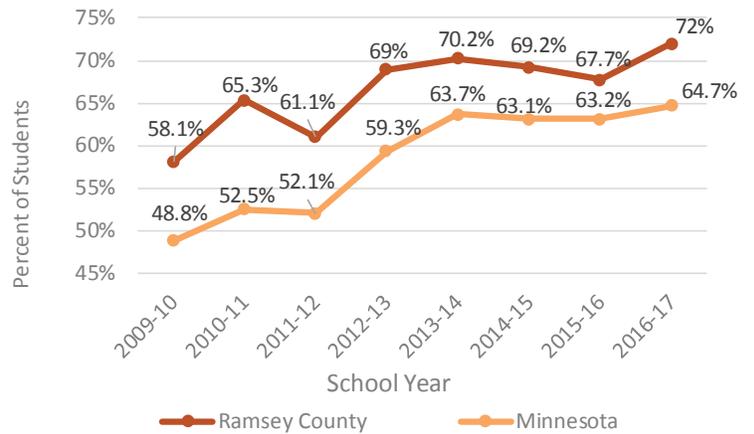


## On-Time Graduation by Population Group, Ramsey County, 2017



Source: Data Reports and Analytics.<sup>6</sup>

## Limited English Proficient Students Who Graduated On Time



<sup>6</sup> Data Reports and Analytics. Minnesota Department of Education Web site. <http://w20.education.state.mn.us/MDEAnalytics/DataTopic.jsp?TOPICID=2>. Accessed May 2018.

## DESCRIPTION

This indicator reports on the educational attainment of Ramsey County residents 25 years or older. Educational attainment is defined as the highest level of education an individual has successfully completed. These levels tend to correlate not only with the health and success of an individual, but also of the surrounding population and community. Paying attention to educational attainment is a critical part of successful social and economic development.<sup>1</sup>

## HOW ARE WE DOING

According to U.S. Census data, the percent of Ramsey County residents (25 years or older, all races aggregated) who reported having a high school degree or higher was 90 percent compared to the Minnesota rate of 93 percent. The percent of Ramsey County residents (25 years or older, all races aggregated) who had a bachelor's or higher was 41 percent, compared to the Minnesota rate of 34 percent. Looking at other metro counties, Ramsey County has the lowest percentage of residents who have education beyond high school. Demographically, the population with the lowest percentage obtaining a high school diploma or higher were those who identified as being of 'other race' at 58.7 percent, followed by those in the Hispanic population at 66.4 percent, then Asian at 67.6 percent. Compared to the 2025 Minnesota Higher Educational Attainment goal to have at least 70 percent of residents (age 25 to 44 years old) with an obtained postsecondary degree or certificate, Ramsey County was far below this goal at 43.8 percent, which was still above the national rate of 38.2 percent.<sup>2</sup> Since 2011, the percentage of Ramsey County residents reporting to have obtained a Bachelor's degree or higher has raised 1.6 percent from 42.2 to 43.8 percent. This is still 26.2 percent below the MN Higher Education goal for 2025 of 70 percent.<sup>3</sup>

## BENCHMARK INDICATOR

Minnesota Higher Education Attainment Goal: Increase the number of residents age 25 to 44 years old who hold postsecondary degrees or certificates.

Minnesota Target: 70 percent by 2025.<sup>4</sup>

## DISPARITIES

Males ages 25 to 29 have lower educational attainment across all educational categories than females in the United States.<sup>5</sup> In Ramsey County, those who identified as "other race," Hispanic or Asian reported the lowest percentage of obtaining a high school diploma or more and lowest percentage of those who had obtained a bachelor's degree or higher.<sup>2</sup> In 2017, most residents reported that a high school diploma was their highest level of education.<sup>6</sup>

## RISK FACTORS

Research indicates that children from low-income households and communities develop academic skills more slowly compared to children from higher income households.<sup>7</sup>

## Information to note

- Among Ramsey County residents age 25 to 44 years old, 40.9% have bachelor's degrees compared to the national rate of 36%.
- Compared to other Minnesota counties, Ramsey County has the lowest percentage of residents who have education beyond high school.

<sup>1</sup> Population Health: Behavioral and Social Science Insights. Agency for Healthcare Research and Quality Web site. <https://www.ahrq.gov/professionals/education/curriculum-tools/population-health/.html>. Accessed June 15, 2017.

<sup>2</sup> American Fact Finder [data set]. The United States Census Bureau Web site. <https://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml>. Accessed December 17, 2017.

<sup>3</sup> Source: American Fact Finder [data set]. The United States Census Bureau Web site. <https://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml>. Accessed June 15, 2017.

<sup>4</sup> 2015 Minnesota Session Laws. The Office of the Revisor of Statutes Web site. <https://www.revisor.mn.gov/laws/?id=69&year=2015&type=0>. Accessed June 15, 2017.

<sup>5</sup> Educational Attainment of Young Adults. National Center for Education Statistics Web site. [https://nces.ed.gov/programs/coe/indicator\\_caa.asp](https://nces.ed.gov/programs/coe/indicator_caa.asp). Accessed June 15, 2017.

<sup>6</sup> Educational Attainment in the United States: 2017. United States Census Bureau Web site. <https://www.census.gov/data/tables/2017/demo/education-attainment/cps-detailed-tables.html>. Accessed December 17, 2017.

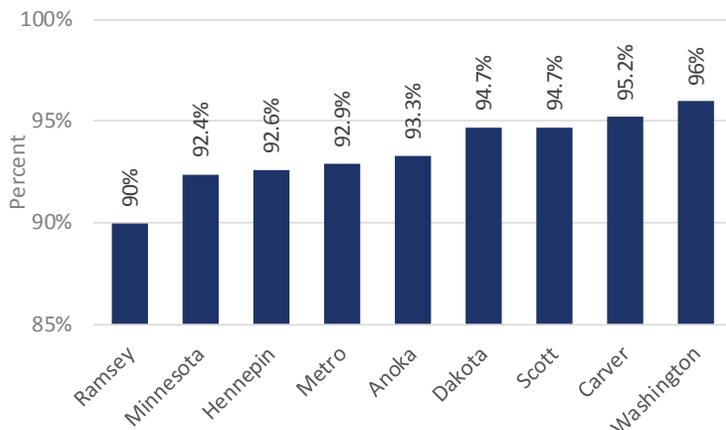
<sup>7</sup> Morgan, P. Risk Factors for Learning-Related Behavior Problems at 24 Months of Age: Population-Based Estimates. *Journal of Abnormal Child Psychology*. 2009. <https://link.springer.com/article/10.1007%2Fs10802-008-9279-8>. Accessed June 15, 2017.

High tuition costs can also be attributed to low academic achievement in communities. Four-year public colleges have raised tuition rates by 33 percent since the 2007-08 school year.<sup>8</sup>

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

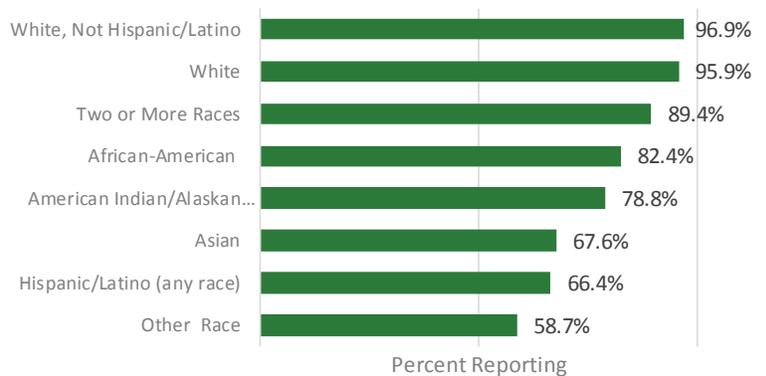
Over the past five years, Ramsey County Workforce Solutions has partnered directly with the three public colleges located within the county to increase educational opportunities for parents on public assistance and for dislocated workers and others seeking to enhance their skills in high-demand industries across the region. Ramsey County is also developing opportunities for full-family services to broaden the available resources to family members previously not served directly by county programming. These efforts have already shown increased earnings for families and will continue to be developed and delivered as part of the county's ongoing workforce development programming.

Residents 25 Years or Older with Education Beyond a High School Degree, 2016



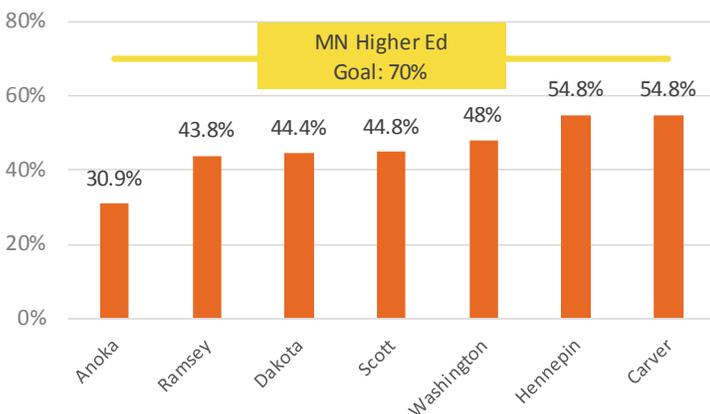
Source: American Fact Finder [data set]. The United States Census Bureau.<sup>9</sup>

High School Diploma or Higher Among Residents 25+ Years, Ramsey County, 2016



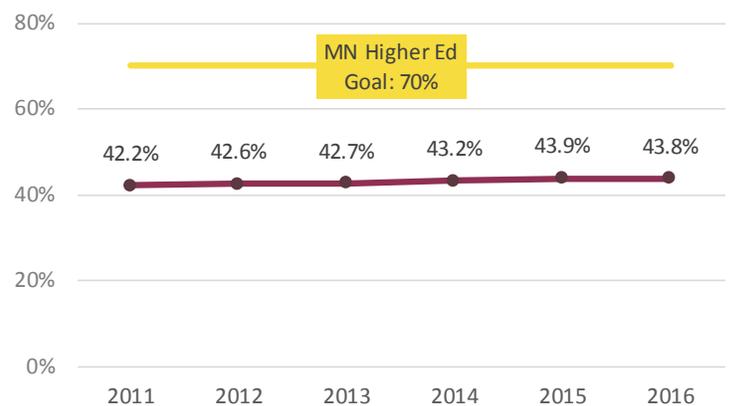
Source: American Fact Finder [data set]. The United States Census Bureau Web site.<sup>9</sup>

Residents 25-44 years with a Postsecondary Degree or Certificate, 2016



Source: American Fact Finder [data set]. The United States Census Bureau Web site.<sup>10</sup>

Residents 25-44 years with a Bachelor's Degree or Higher, Ramsey County



Source: American Fact Finder. The United States Census Bureau Web site.<sup>9</sup>

<sup>8</sup>Trends in College Pricing. College Board Web site. <https://trends.collegeboard.org/college-pricing>. Accessed June 15, 2017.

<sup>9</sup>American Fact Finder [data set]. The United States Census Bureau Web site. <https://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml>. Accessed June 15, 2017.

<sup>10</sup>American Fact Finder [data set]. The United States Census Bureau Web site. <https://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml>. Accessed September 15, 2017.

## DESCRIPTION

Access to safe, affordable and nutritious food is essential to health. Food insecurity refers to having limited or uncertain access to healthy, safe foods.<sup>1</sup> For adults, experiencing food insecurity can result in illness and chronic disease and can contribute to mental health issues, including depression. Food insecurity can cause developmental delays and long-term educational setbacks for children.<sup>2</sup> In 2016, prevalence of food insecurity across the country is still above pre-recession levels in 2007-10 percent of Minnesota households are food insecure.<sup>3</sup> To gauge food insecurity in our area, the 2014 Metro SHAPE survey asked respondents how often during the past year they worried that their food would run out before they had money to buy more.<sup>4</sup> Any response other than “never” was deemed a sign of food insecurity.

## HOW WE ARE DOING

One method of addressing food insecurity is through meal programs. In 2011, meal programs in Ramsey County at shelters, community meal programs, and social service agencies served an estimated 1,066,000 meals a year.<sup>5</sup> The percentage of Ramsey County residents who were food insecure in 2014 was higher than in the six-county metro area (22.7 percent versus 17.5 percent).<sup>6</sup> It’s important to note that although food insecurity and poverty are connected, they are not the same. In 2015, approximately one quarter of people in Ramsey County who were food insecure had incomes greater than 185 percent of the federal poverty rate.

## BENCHMARK INDICATOR

Healthy People 2020: Eliminate very low food insecurity among children. Very low food insecurity includes reduced access to a variety of quality foods, and to reduced intake of food

U.S. Target: 0.2 percent<sup>7</sup>

## DISPARITIES

The prevalence of food insecurity varies widely across subgroups of the U.S. population. Some groups are more likely to be food insecure than others. Food insecurity tends to be more prevalent in households with children and in single-parent households. In 2016, 31.6 percent of single-mother households and 21.7 percent of single-father households in the U.S. were food insecure.<sup>8</sup> Multiple-adult households without children have a lower food insecurity prevalence (8.0 percent) than single-mother households (31.6 percent) and single-father households (21.7 percent). However, in the U.S. as a whole, multiple-adult households without children are more numerous than single-parent households, so these multiple-adult households make up a larger share of the distribution of all food-insecure

## Information to note

- Food insecurity increased significantly during the Great Recession. It remains at historically high levels despite significant public, private and community efforts.
- The likelihood of living in a food-insecure household is highest for adults with mental health disabilities.

<sup>1</sup> Anderson SA, ed. Core Indicators of Nutritional State for Difficult to Sample Populations. The Journal of Nutrition. 1990; 120:1557S-1600S. [https://doi.org/10.1093/jn/120.suppl\\_11.1555](https://doi.org/10.1093/jn/120.suppl_11.1555).

<sup>2</sup> NWS-13 Data Details. Healthy People 2020. [https://www.healthypeople.gov/node/4936/data\\_details](https://www.healthypeople.gov/node/4936/data_details). Accessed September 21, 2017.

<sup>3</sup> Coleman-Jensen A, Rabbitt MP, Gregory CA, Singh A. Household Food Security in the United States in 2016. United States Department of Agriculture, Economic Research Service. 2017. United States Department of Agriculture, Economic Research Service. 2017. <https://www.ers.usda.gov/webdocs/publications/84973/err-237.pdf?v=42979>. Published September 2017. Accessed October 6, 2017.

<sup>4</sup> 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 August 2018.

<sup>5</sup> Ramsey County Healthy Meals Coalition Baseline Report November 2011. Ramsey County Web site. [https://www.ramseycounty.us/sites/default/files/Health%20and%20Medical/Public%20Health%20Initiatives/RCHMC\\_Final\\_Baseline\\_Report\\_KH.pdf](https://www.ramseycounty.us/sites/default/files/Health%20and%20Medical/Public%20Health%20Initiatives/RCHMC_Final_Baseline_Report_KH.pdf). Accessed October 13, 2017.

<sup>6</sup> 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 August 2018.

<sup>7</sup> NWS-12 Data Details. Healthy People 2020. [https://www.healthypeople.gov/node/4935/data\\_details](https://www.healthypeople.gov/node/4935/data_details). Accessed September 21, 2017.

<sup>8</sup> Rabbitt MP, Coleman-Jensen A, Gregory CA. Understanding the prevalence, severity, and distribution of food insecurity in the United States. United States Department of Agriculture, Economic Research Service. 2017. <https://www.ers.usda.gov/amber-waves/2017/september/understanding-the-prevalence-severity-and-distribution-of-food-insecurity-in-the-united-states/>. Published September 6, 2017. Accessed December 28, 2017.

households.<sup>9</sup> Population groups such as the young and the old, minorities, those living in low-income households, and people with mental health disabilities are especially vulnerable to food insecurity.<sup>10, 11</sup> A 2011 study reported that most of the meal programs in Ramsey County identified African-American as the largest population group that use their services. Three meal programs in the county, however, identified white clients as the largest population group. Three additional sites focus on Native American or Latino clients.<sup>12</sup>

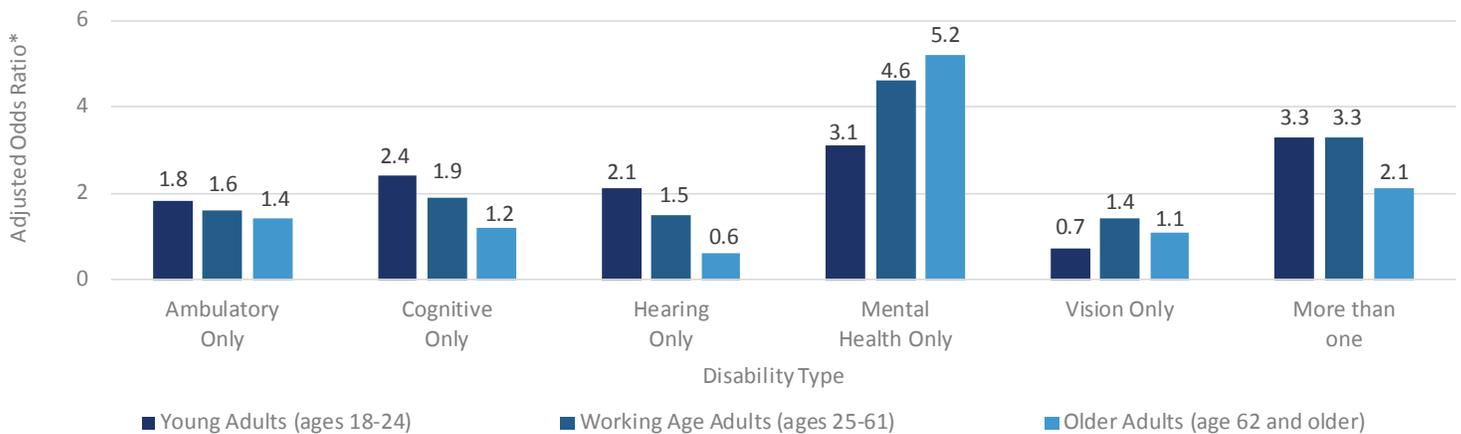
## RISK FACTORS

In addition to the disparity information listed above, risk factors for food insecurity include immigration status, disability, poor health status and exposure to violence.<sup>13</sup>

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

Understanding which characteristics may be associated with an increased risk of food insecurity is helpful for targeting assistance to those most likely to be in need. Saint Paul- Ramsey County Public Health addresses food insecurity within its Healthy Communities Division. Through SHIP and the Healthier Meals Coalition, public health collaborates with stakeholders in the community to increase access to healthy foods.<sup>10</sup>

Likelihood of Living in a Food-Insecure Household, U.S. 2014



\*Note: Odds ratios are the likelihood of food insecurity relative to adults with a disability and are adjusted to control for gender, race/ethnicity, education, presence of children, employment, and family income.

Source: Brucker and Coleman-Jensen, 2017.<sup>14</sup>

<sup>9</sup> Rabbitt MP, Coleman-Jensen A, Gregory CA. Understanding the prevalence, severity, and distribution of food insecurity in the United States. United States Department of Agriculture, Economic Research Service. 2017. <https://www.ers.usda.gov/amber-waves/2017/september/understanding-the-prevalence-severity-and-distribution-of-food-insecurity-in-the-united-states/>. Published September 6, 2017. Accessed December 28, 2017.

<sup>10</sup> Vulnerable populations disproportionately affected by food insecurity, despite public programs. RTI International. <https://www.rti.org/news/report-vulnerable-populations-disproportionately-affected-food-insecurity-despite-public>. Published July 24, 2014. Accessed September 21, 2017.

<sup>11</sup> Brucker DL, Coleman-Jensen A. Food insecurity across the adult lifespan for adults with disabilities in the United States. Disability and Health Journal. 2017. doi:10.1177/1044207317710701.

<sup>12</sup> Ramsey County Healthy Meals Coalition Baseline Report November 2011. Ramsey County Web site. [https://www.ramseycounty.us/sites/default/files/Health%20and%20Medical/Public%20Health%20Initiatives/RCHMC\\_Final\\_Baseline\\_Report\\_KH.pdf](https://www.ramseycounty.us/sites/default/files/Health%20and%20Medical/Public%20Health%20Initiatives/RCHMC_Final_Baseline_Report_KH.pdf). Accessed October 13, 2017.

<sup>13</sup> Current and prospective scope of hunger and food security in America: a review of current research; 2014. Center for Health and Environmental Modeling. RTI International. [http://www.rti.org/sites/default/files/resources/full\\_hunger\\_report\\_final\\_07-24-14.pdf](http://www.rti.org/sites/default/files/resources/full_hunger_report_final_07-24-14.pdf). Accessed September 21, 2017.

<sup>14</sup> Brucker and Coleman-Jensen, 2017; analysis of the U.S. Centers for Disease Control and Prevention's 2011-14 National Health Interview Survey Data. Note: Odds ratios are the likelihood of food insecurity relative to adults with a disability and are adjusted to control for gender, race/ethnicity, education, presence of children, employment, and family income.

## DESCRIPTION

Food insecurity is a growing problem among all ages, including older and younger people. While food insecurity among children is a significant issue because adequate food during childhood can affect health throughout their lives.<sup>1</sup> The impact of food insecurity on seniors may be exacerbated by other challenges this population faces such as battling acute and chronic health problems and moving with limited mobility.<sup>2</sup> The U.S. Department of Agriculture (USDA) defines food insecurity as a lack of consistent access to enough food for an active, healthy life.<sup>3</sup> Visits to food shelves is one way to measure food insecurity.

## HOW WE ARE DOING

From 2006 to 2013, visits to food shelves by households, children, adults and seniors in Ramsey County steadily increased and reached record numbers in 2013, with a drop off in 2014.<sup>4</sup> Since then, the number of visits by adults and senior has increased slightly while visits by children and overall households appears to have remained steady.<sup>5</sup> Ramsey County is on trend with neighboring counties and with Minnesota with regard to food shelf visits.<sup>6</sup>

## DISPARITIES

Children in the household increase the presence of food insecurity: 17 percent of households in the United States with children are food insecure compared to 11 percent of households without children. About 50 percent of households with children who are food insecure are cared for by single women. Nationally, twice as many immigrant households experience food insecurity in comparison to nonimmigrant households. African-American, American Indians, and Hispanics experience higher rates of food insecurity than whites.<sup>7</sup>

## RISK FACTORS

Research shows that young, low-income families with children are the most food insecure population in America.<sup>2</sup> In addition, high rates of food insecurity are found nationally among: Blacks and Hispanics, unmarried individuals, renters, people living with a disability, workers who have become unemployed, those with a lower level of education, those living in poverty and those living alone.<sup>8</sup>

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

Saint Paul- Ramsey County Public Health administers many programs and services that can reduce the reliance of households and children on food shelves to meet their nutritional needs. Through the Statewide Health Improvement Partnership (SHIP), the Healthy Communities Division works with partners to improve access to healthy foods in schools, child care, health care, workplaces and communities. For example, a partnership with Mounds View School District involved installing raised vegetable garden beds at elementary and middle schools. These garden beds yielded many hundreds of pounds of fresh (continued on next page)

## Information to note

- The number of children whose families visited food shelves in Ramsey County has remained steady from 2015 to 2017, while the number of adults and seniors has risen slightly.
- The number of annual visits to food shelves in Ramsey County has a similar trend to neighboring counties and Minnesota.

<sup>1</sup> Food Insecurity in Early Childhood. Center for the Study of Social Policy. <https://www.cssp.org/publications/general/document/Food-Insecurity-Early-Childhood.pdf>. Accessed October 2018.

<sup>2</sup> Food Insecurity Among Older Adults: 2015 Update. AARP Foundation. [https://www.aarp.org/content/dam/aarp/aarp\\_foundation/2015-PDFs/AF-Food-Insecurity-2015Update-Final-Report.pdf](https://www.aarp.org/content/dam/aarp/aarp_foundation/2015-PDFs/AF-Food-Insecurity-2015Update-Final-Report.pdf). Published September 2014. Accessed October 2018.

<sup>3</sup> Definitions of Food Security. U.S. Department of Agriculture. <https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/definitions-of-food-security.aspx>. Updated September 5, 2018. Accessed October 2018.

<sup>4</sup> Visits to food shelves in Minnesota by County- 5 Year comparison (2016 & 2012). Hunger Solutions. <http://www.arcgis.com/apps/StoryMapBasic/index.html?appid=2feca3935fa24a509ebf86ddef9cecf5>. Accessed October 2018.

<sup>5</sup> Minnesota Indicators. Kids Count Data Center. <http://datacenter.kidscount.org/data#MN/5/0/char/0>. Accessed October 2018.

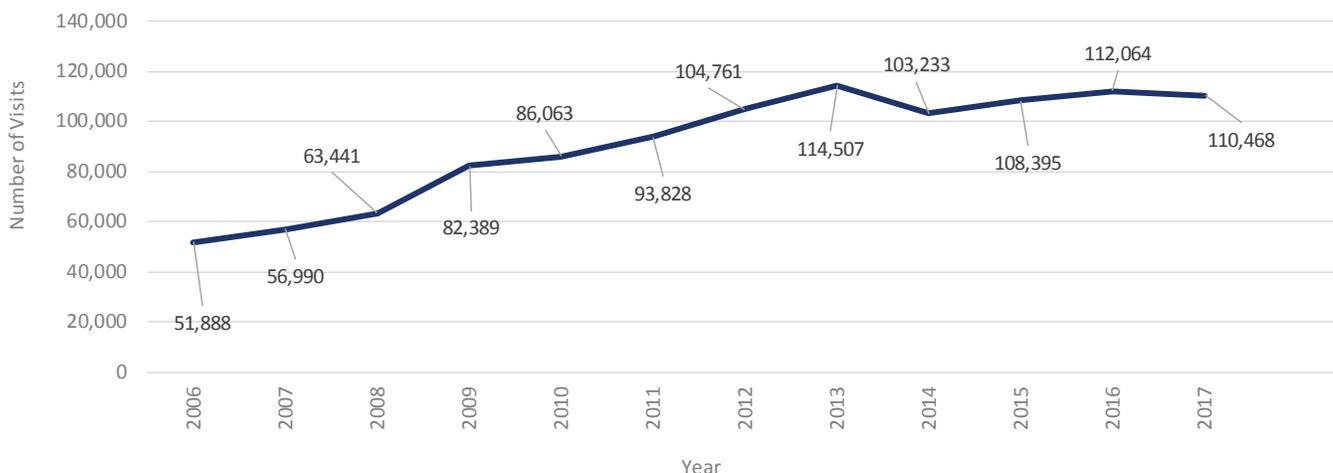
<sup>6</sup> Personal communication with Hunger Solutions, Saint Paul MN, October 2018.

<sup>7</sup> RTI International, Center for Health and Environmental Modeling. Current and prospective scope of hunger and food security in America: a review of current research. [http://www.rti.org/sites/default/files/resources/full\\_hunger\\_report\\_final\\_07-24-14.pdf](http://www.rti.org/sites/default/files/resources/full_hunger_report_final_07-24-14.pdf). Published July 2014. Accessed October 2018.

<sup>8</sup> Echevarria S, Santos R, Waxman E, Engelhard E, Del Vecchio T. Food banks: Hunger's new staple. Feeding America. 2009. <http://www.feedingamerica.org/research/hungers-new-staple/hungers-new-staple-full-report.pdf>. Accessed October 2018.

vegetables for not only students but also the local food shelf.<sup>9</sup> The Women, Infants, and Children Program provides vouchers for families to purchase nutritious foods for pregnant women, new mothers, infants and children at WIC eligible grocery stores and farmers' markets.<sup>10</sup>

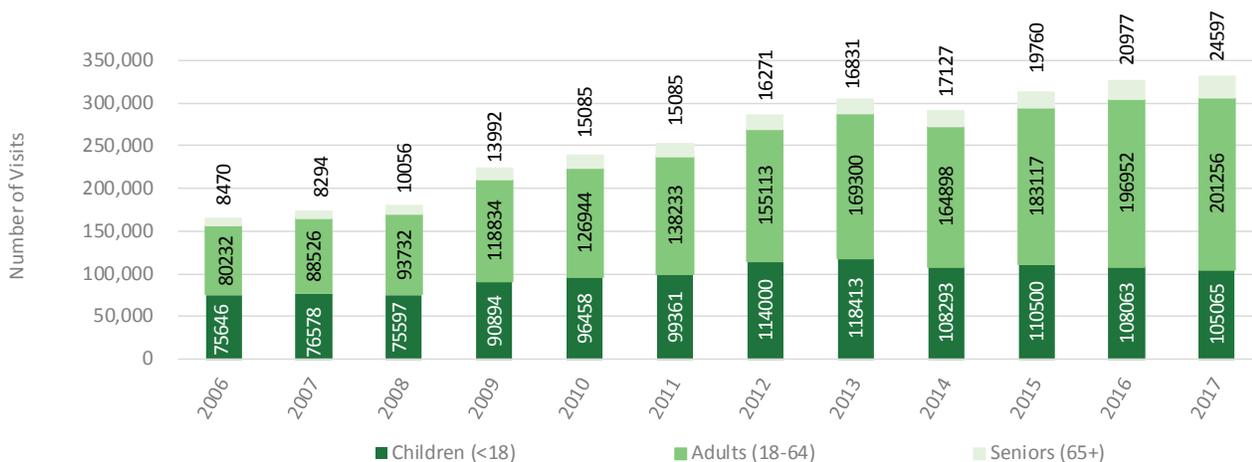
### Household Visits to Food Shelves in Ramsey County, 2006-2017



Note: Households and children were counted every time a person from the household visited a food shelf.

Source: Hunger Solutions.<sup>11</sup>

### Visits to Food Shelves in Ramsey County by Age Group, Ramsey County, 2006-2017



Note: Households and children were counted every time a person from the household visited a food shelf.

Source: Hunger Solutions.<sup>11</sup>

<sup>9</sup> Statewide Health Improvement Partnership (SHIP). Ramsey County. <https://www.ramseycounty.us/residents/health-medical/public-health-initiatives/statewide-health-improvement-program-ship>. Accessed October 2018.

<sup>10</sup> WIC (Women, Infants and Children). Ramsey County. <https://www.ramseycounty.us/residents/assistance-support/support-families/wic-women-infants-and-children>. Accessed October 2018.

<sup>11</sup> Hunger Solutions <http://www.hungersolutions.org/hunger-data/>. Accessed October 2018.

# Healthy Food Access

## DESCRIPTION

The benefits of eating healthy food, including fruits and vegetables, are widely known. When healthy foods are available and affordable, people can make healthy choices. Conversely, when there is less access to healthy food it is more difficult to make healthy choices, which can have negative impacts on health.<sup>1</sup> Geographic areas with limited availability of fresh fruits, vegetables, and other healthy whole foods are referred to as “food deserts.”<sup>2</sup> Food deserts lack grocery stores, farmers markets and other healthy food providers, and often have an overabundance of fast food and convenience stores which have largely processed, unhealthy foods.<sup>3</sup>

## HOW WE ARE DOING

In 2015, there were 111,305 residents of Ramsey County with low access to grocery stores (21.9 percent).<sup>4</sup> About 25,000 (5 percent) were children under 18. In Ramsey County, food deserts are most prominent in the Greater Eastside and Dayton’s Bluff neighborhoods of Saint Paul and in the suburban cities of Maplewood and North St. Paul.

## BENCHMARK INDICATOR

Healthy People 2020<sup>5</sup>: Increase the proportion of Americans who have access to a food retail outlet that sells a variety of foods that are encouraged by the Dietary Guidelines for Americans.

U.S. Target: This target is currently under development.

## DISPARITIES

The presence of food deserts impacts healthy food access. Food deserts are often found in communities of color and low-income neighborhoods, where residents often don’t have cars. The failure of grocery chains that offer healthy foods to locate stores in inner-city communities has been referred to as food “redlining” (the inability to access loan products and insurance based on the neighborhood rather than on other factors).<sup>6</sup>

Studies show that wealthy neighborhoods have three times as many supermarkets as poor ones, and that white neighborhoods have about four times as many supermarkets as predominantly black neighborhoods.<sup>7</sup> Grocery stores in African-American communities are usually smaller with less selection. While both price and distance are barriers to healthy food access in Ramsey County, price is the primary factor.<sup>8</sup> Affordability has a greater impact than increasing stores.<sup>8</sup> Healthy foods are often limited at food shelves and other meal programs for the poor. These programs often depend on donations, and as one organization said, “It’s not healthy, but it’s free.”<sup>9</sup> In addition, Ramsey County lacks culturally-specific markets and has limited availability of culturally-specific foods in larger grocery stores.

<sup>1</sup>Overweight and Obesity. Centers for Disease Control and Prevention. <https://www.cdc.gov/obesity/strategies/healthy-food-env.html>. Accessed August 2018.

<sup>2</sup>CDC Features. Centers for Disease Control and Prevention. <https://www.cdc.gov/features/fooddeserts/>. Accessed August 2018.

<sup>3</sup>USDA Defines Food Deserts. American Nutrition Association. <http://americannutritionassociation.org/newsletter/usda-defines-food-deserts>. Accessed August 2018.

<sup>4</sup>United States Department of Agriculture Economic Research Service. Food Atlas. <https://www.ers.usda.gov/data-products/food-environment-atlas/go-to-the-atlas.aspx>. Accessed July 5, 2018.

<sup>5</sup>Nutrition and Weight Status. 2020 Topics and Objectives. Healthy People 2020. <https://www.healthypeople.gov/node/3502/objectives>. Accessed June 2018.

<sup>6</sup>Wright Edelman M. Urban food deserts threaten children’s health. Huffington Post. [https://www.huffingtonpost.com/marian-wright-edelman/urban-food-deserts-threat\\_b\\_410339.html](https://www.huffingtonpost.com/marian-wright-edelman/urban-food-deserts-threat_b_410339.html). Published January 4, 2010. Updated May 25, 2011. Accessed June 2018.

<sup>7</sup>Food Deserts. Food Empowerment Project. Food is Power. <http://www.foodispower.org/food-deserts/>. Accessed June 2018.

<sup>8</sup>Mattessich P, Rausch E. Healthy Food Access, a view from the landscape in Minnesota and lessons learned from healthy food financing initiatives. Amherst H. Wilder Foundation. [https://www.wilder.org/sites/default/files/imports/Healthy%20Food%20Access%20Study\\_Final%20Report\\_April%202016.pdf](https://www.wilder.org/sites/default/files/imports/Healthy%20Food%20Access%20Study_Final%20Report_April%202016.pdf). Published April 2016. Accessed June 2018.

<sup>9</sup>Saint Paul – Ramsey County Public Health. Ramsey County Healthy Meals Coalition baseline report. [https://www.ramseycounty.us/sites/default/files/Health%20and%20Medical/Public%20Health%20Initiatives/RCHMC\\_Final\\_Baseline\\_Report\\_KH.pdf](https://www.ramseycounty.us/sites/default/files/Health%20and%20Medical/Public%20Health%20Initiatives/RCHMC_Final_Baseline_Report_KH.pdf). Accessed July 2018.

## Information to note

- Most food deserts in Ramsey County are in Saint Paul.
- Both price and distance are roadblocks to healthy food access in Ramsey County but price is the primary barrier.



## Identified by the community

*“Too easy access to bad/unhealthy foods, hard to access healthy food options.”*

Two-thirds of responses about community health (1,420 mentions) identified food and nutrition as important to staying healthy.

Within these 1,420 responses, 264 mentioned access to healthy food.

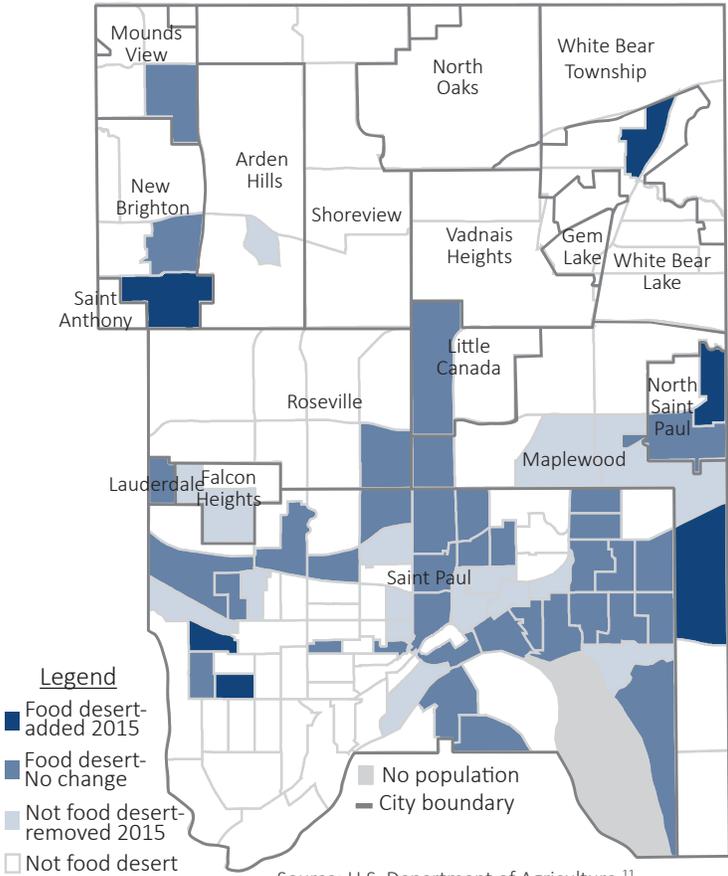
RISK FACTORS

Low-income and populations of color have higher rates of obesity, Type 2 diabetes, early high blood pressure in children, as well as other food related conditions than the general population. Limited access to healthy foods over time is one reason.<sup>10</sup>

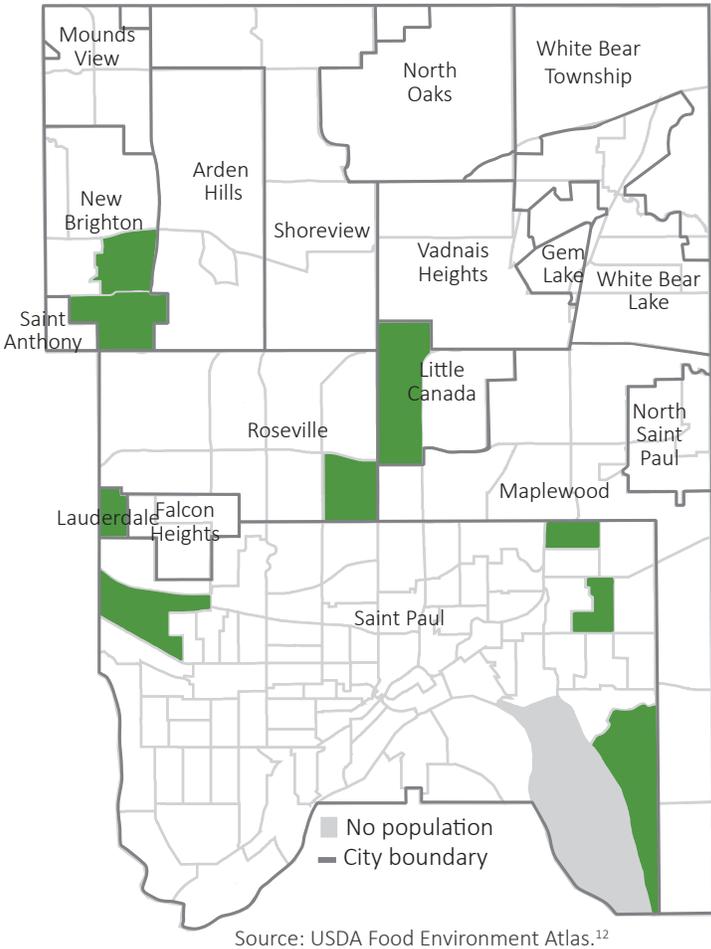
WHAT RAMSEY COUNTY GOVERNMENT IS DOING

Saint Paul - Ramsey County Public Health’s Statewide Health Improvement Partnership (SHIP) improves healthy options at food shelves, increases the use and accessibility of farmers markets, and partners with worksites, schools and community organizations to improve their food environments. Examples include creating community and school gardens, improving vending machine offerings, increasing healthy food availability in corner stores, and encouraging healthy food acceptance through taste-testing. Other initiatives include healthy food access policy development with the Ramsey County Food and Nutrition Commission and the inclusion of healthy food access in the Ramsey County Comprehensive Plan.

Food Desert Change by Census Tract, Ramsey County, 2015



Low Income, Low Access to a Vehicle & Low Food Access by Census Tract, Ramsey County, 2015



<sup>10</sup>USDA Defines Food Deserts. American Nutrition Association. <http://americannutritionassociation.org/newsletter/usda-defines-food-deserts>. Accessed August 2018.

<sup>11</sup>U.S. Department of Agriculture, Economic Research Service, USDA- Food Access Research Atlas (FARA): 2010-2015. Released 2017. Accessed June 2018.

<sup>12</sup>USDA Food Environment Atlas. Web site. <https://www.ers.usda.gov/data-products/food-environment-atlas/>. Released 2017. Accessed June 2018.

# Supplemental Nutrition Assistance Program (SNAP)

## DESCRIPTION

Proper nutrition and healthy food education can have positive effects on individuals and the community at large. This is one of the motivations behind the Supplemental Nutrition Assistance Program (SNAP), funded by the U.S Department of Agriculture (USDA). Formerly called Food Stamps or Food Support, SNAP helps low-income individuals and families buy food, as well as plants and seeds from which to grow food. More than 621,000 Minnesotans – almost 11 percent of the state’s population – received SNAP at some point in 2016.<sup>1</sup> The USDA considers SNAP to be highly effective at reducing food insecurity.<sup>2</sup> The program also includes education encouraging healthy food choices and living an active lifestyle while on a limited budget. In 2017, approximately 16,700 Minnesotans participated in the courses and an additional 200,000 accessed related information, through websites, newsletters, social media and health fair publications.<sup>3</sup>

## HOW WE ARE DOING

In 2017, more than \$576 million in food benefits were paid to a monthly average of 427,604 people, or 209,265 households, in Minnesota.<sup>4,5</sup> Of those, 70 percent were children, seniors and people with disabilities.<sup>6</sup> Ramsey County, like most of the U.S., has seen its average monthly cases decline in the last five years, from 40,767 in 2013 to 33,783 in 2017. Ramsey County consistently has a higher percentage of households receiving SNAP benefits (16.7 percent in 2015) than Hennepin County (12.2 percent) or the state (10.2 percent).<sup>5</sup> Compared to poverty, 16.6 percent of Ramsey County households received SNAP benefits in 2016, while 13.9 percent were living in poverty.<sup>3</sup> A household is eligible for SNAP benefits if its members are receiving MFIP assistance. In 2017, there were 47,912 households in the county eligible for SNAP. This is a drop of almost 18,000 from the 56,535 eligible households in 2013.<sup>5,7</sup>

## DISPARITIES

The American Community Survey provides a snapshot of SNAP participants for each Congressional District; Ramsey County is almost entirely represented by the 4th Congressional District. In 2016, characteristics of SNAP-utilizing householders in this area were as follows: 42.5 percent white, 27.9 percent Black or African-American, 20.1 percent Asian, and 8.1 percent Hispanic or Latino (of any race); while most people who receive SNAP benefits are white, non-white households are disproportionately represented among SNAP recipients compared to the overall racial and ethnic composition of this district.

Looking at work status, 18.2 percent of SNAP participants had no workers in the family in the past 12 months, while 44.5 percent had one worker and 37.4 had two or more workers. In addition, 54.8 percent of households receiving SNAP benefits included children under 18 years, 52.6 percent of recipients lived with disabled individual(s), and 24.9 percent lived with one or more people 60 years and over. Half of all households receiving SNAP benefits (continued on back)

## Information to note

- The majority of people receiving food benefits are children, seniors and people with disabilities. **callout text**
- Ramsey County has a higher percentage of households receiving SNAP benefits than Hennepin County or Minnesota.
- The vast majority of SNAP recipients are from families with one or more people working.

<sup>1</sup> Supplemental Nutrition Assistance Program in Minnesota. Minnesota Department of Human Services. [https://mn.gov/dhs/assets/snap-in-minnesota\\_tcm1053-301213.pdf](https://mn.gov/dhs/assets/snap-in-minnesota_tcm1053-301213.pdf). Published April 2018. Accessed October 2018.

<sup>2</sup> White House Report Highlights New Research on SNAP’s Effectiveness and the Importance of Adequate Food Assistance. United States Department of Agriculture. <https://www.fns.usda.gov/pressrelease/2015/wh-120815>. Published December 8, 2015. Accessed October 2018.

<sup>3</sup> Supplemental Nutrition Assistance Program-Education. Minnesota Department of Human Services. <https://edocs.dhs.state.mn.us/lfsrserver/Public/DHS-6776-ENG>. Published January 2018. Accessed October 2018.

<sup>4</sup> Supplemental Nutrition Assistance Program helps people with low incomes buy food. Minnesota Department of Human Services. <https://edocs.dhs.state.mn.us/lfsrserver/Public/DHS-5738-ENG>. Published April 2018. Accessed October 2018.

<sup>5</sup> Financial reports and forecasts. Minnesota Department of Human Services. <https://mn.gov/dhs/general-public/publications-forms-resources/reports/financial-reports-and-forecasts.jsp>. Accessed October 2018.

<sup>6</sup> Minnesota Department of Human Services. Letter regarding SNAP provisions in 2018 Farm Bill. [https://mn.gov/dhs/assets/mn-dhs-delegation-letter-re-snap-provisions-in-2018-farm-bill\\_tcm1053-338791.pdf](https://mn.gov/dhs/assets/mn-dhs-delegation-letter-re-snap-provisions-in-2018-farm-bill_tcm1053-338791.pdf). Accessed October 2018.

<sup>7</sup> Chart Book: SNAP Helps Struggling Families Put Food on the Table. Center on Budget and Policy Priorities. <https://www.cbpp.org/research/food-assistance/chart-book-snap-helps-struggling-families-put-food-on-the-table>. Updated February 14, 2018. Accessed October 2018.

# Supplemental Nutrition Assistance Program (SNAP)

were below poverty level.<sup>8</sup>

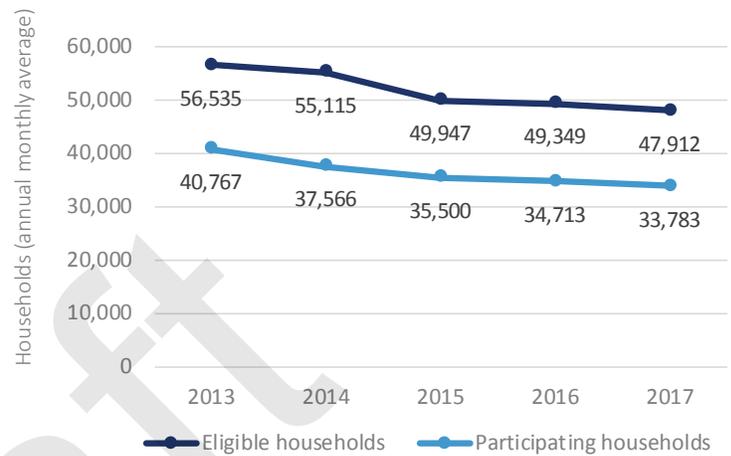
## RISK FACTORS

Low-income individuals and those living in poverty are more likely to experience food insecurity and SNAP has been highly effective at addressing this issue. The amount of benefits received is based on income, expenses and the number of people in the household.<sup>9</sup>

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

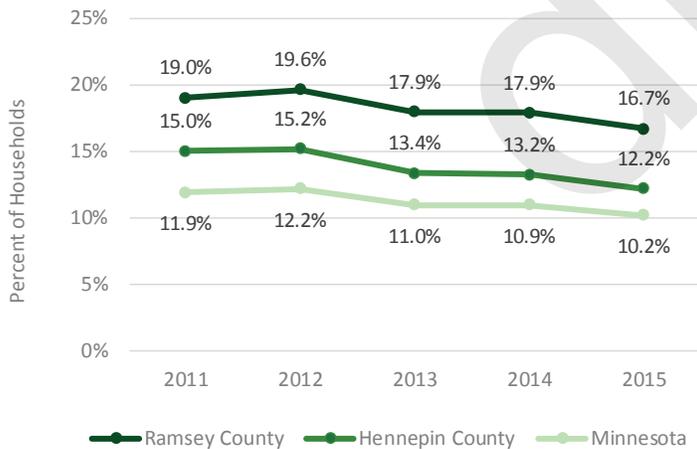
text

SNAP Eligibility and Participation, Ramsey County



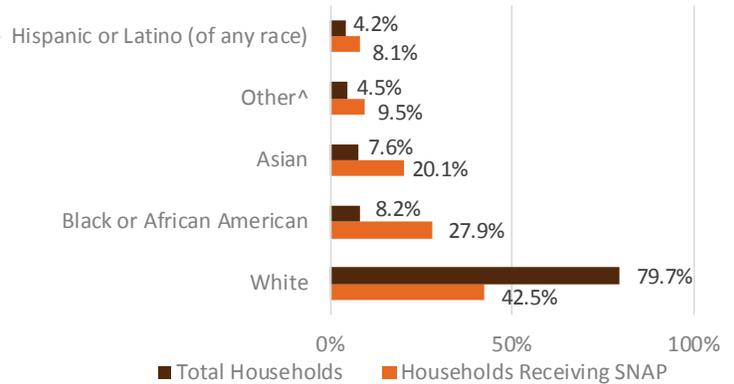
Sources: Minnesota Department of Human Services.<sup>10</sup>

SNAP Participation



Source: Minnesota Department of Human Services.<sup>11</sup>

SNAP Utilization by Race and Ethnicity\*, 4th Congressional District, 2016



\*Defined by the characteristics of the household head.

^includes American Indian, Alaska Native, "some other race," and "two or more races"

Source: United States Department of Agriculture.<sup>12</sup>

<sup>8</sup> Profile of Snap Households: Minnesota Congressional District 4. United States Department of Agriculture. [https://fns-prod.azureedge.net/sites/default/files/ops/Minnesota\\_4.pdf](https://fns-prod.azureedge.net/sites/default/files/ops/Minnesota_4.pdf). Published January 2018. Accessed October 2018.

<sup>10</sup> MN Department of Human Service Supplemental Nutrition Assistance Program (SNAP) <https://mn.gov/dhs/partners-and-providers/news-initiatives-reports-workgroups/economic-supports-cash-food/>. Accessed October 2018.

<sup>12</sup> Profile of Snap Households: Minnesota Congressional District 4. United States Department of Agriculture. [https://fns-prod.azureedge.net/sites/default/files/ops/Minnesota\\_4.pdf](https://fns-prod.azureedge.net/sites/default/files/ops/Minnesota_4.pdf). Accessed October 2018.

# School Food Environment

## DESCRIPTION

Serving healthy choices in the lunch room, limiting availability and marketing of unhealthy foods/sugary drinks, and making water available to students throughout the day are some of the ways that schools can help prevent obesity.<sup>1</sup> Paying attention to the food environments children face at school is an important way to help improve population health.

## HOW WE ARE DOING

While there are limited data available specific to the school-based food environment in Ramsey County, the Minnesota Student Survey is one source of information about students' consumption of unhealthful foods and sugary drinks (though survey responses are not limited to the school environment). Compared to 2013, 2016 saw a slight decrease in the percentage of Ramsey County students reporting the consumption of 1 or more sugar-sweetened beverages (including pop or soda, sports drinks such as Gatorade or Powerade, energy drinks such as Red Bull or Jolt, and other drinks such as sweet tea, lemonade, coffee drinks or juice drinks), and a slight increase in those consuming water.

In terms of financial availability, the 2017 price per meal at Ramsey County Public Schools averaged \$3.83 for every lunch and \$1.06 for every breakfast. This was 35 cents more expensive than statewide prices for lunch, and 20 cents lower than the state for breakfast meals. The price for breakfast in specific school districts ranged from \$0.64 (White Bear Lake District) to \$1.64 (Saint Paul School District); the price for lunch ranged from \$3.24 (Saint Paul School District) to \$4.40 (Roseville Public Schools).<sup>2</sup>

## DISPARITIES

Research at the national level suggests Hispanic youth are particularly likely to be in schools that are surrounded by convenience stores, fast-food restaurants or snack stores (increasing access to unhealthy options and potentially negating the effects of health education in the classroom).<sup>3</sup>

For those with soft drinks available at school in a U.S. study, rates of at-school and overall consumption were highest among African-American children, children from low-income households and those who reside in rural areas.<sup>4</sup>

## RISK FACTORS

Environments with easy access to unhealthy foods can have a negative impact on health.<sup>1</sup>

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

Saint Paul- Ramsey County Public Health works extensively with county school districts to develop initiatives that increase access to healthy foods, including the formation of wellness teams and champions to implement school-specific strategies; adopting policies related to healthier foods at fundraisers, celebrations and in vending machines; and adding water-bottle filling stations to discourage sugar-sweetened beverages. (Enhanced data on schools selling or offering sweetened beverages to students are expected in the near future).

(continued on back)

## Information to note

- Limiting the availability of unhealthful foods and sugary drinks in schools can help prevent obesity.
- More work is needed to get a full picture of the food environment in Ramsey County schools.

<sup>1</sup> School Meals, Competitive Foods, and the School Food Environment. Harvard T.H. Chan. <https://www.hsph.harvard.edu/obesity-prevention-source/obesity-prevention/schools/school-meals-competitive-foods-and-the-school-food-environment/>. Accessed October 2018.

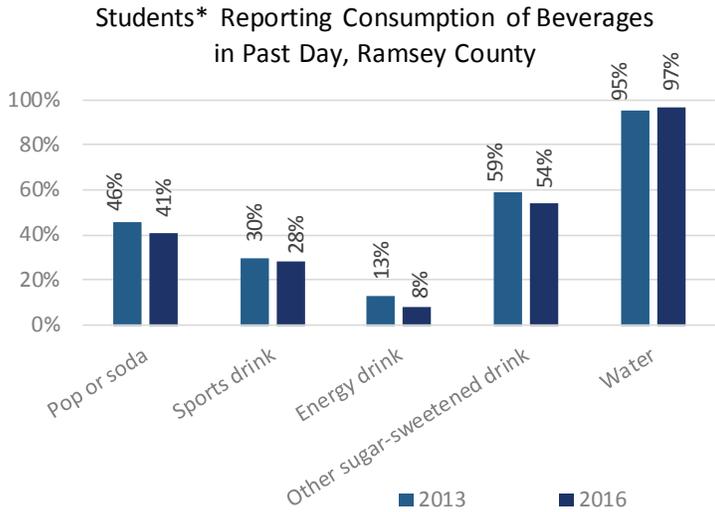
<sup>2</sup> Food Service Financial Report. Minnesota Department of Education. <http://w20.education.state.mn.us/MDEAnalytics/DataTopic.jsp?TOPICID=396>. Accessed October 2018.

<sup>3</sup> Sturm R. Disparities in the food environment surrounding U.S. middle and high schools. Healthy Eating Research. 2008. <http://healthyeatingresearch.org/research/disparities-in-the-food-environment-surrounding-u-s-middle-and-high-schools/>. Published July 2008. Accessed October 2018.

<sup>4</sup> Fernandes MM. The effect of soft drink availability in elementary schools on consumption. Healthy Eating Research. 2008. <http://healthyeatingresearch.org/research/the-effect-of-soft-drink-availability-in-elementary-schools-on-consumption/>. Published September 2008. Accessed October 2018.

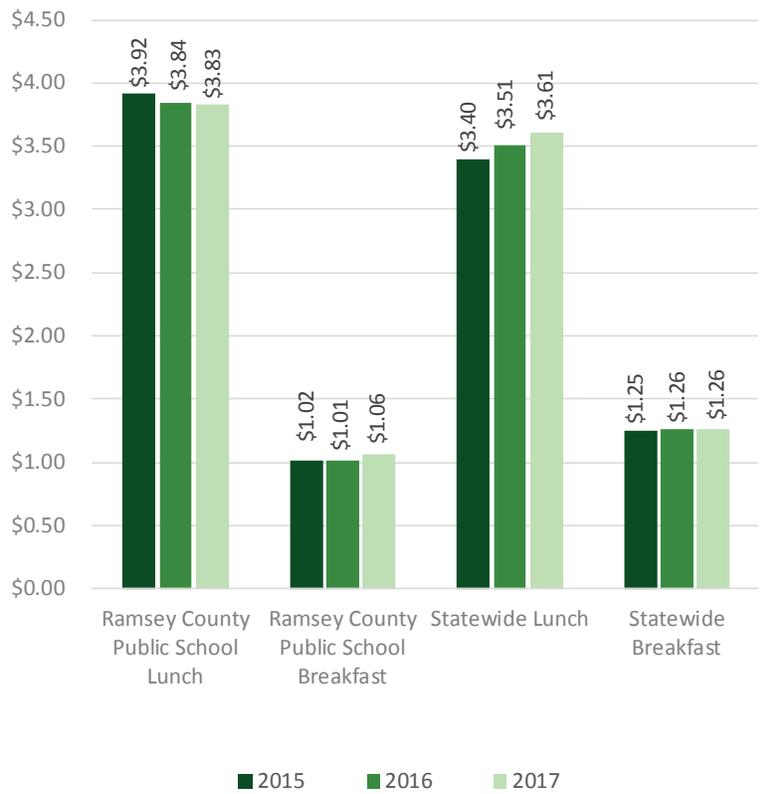
## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

In addition, Ramsey County is engaging in initiatives such as Rethink Your Drink, a tool to educate both youth and adults on (a) how much sugar is consumed in sugary beverages such as soda, juice, energy drinks and sports drinks, (b) alternatives to sugary drinks such as infused water, and (c) the long-term risks from consuming too many sugary drinks such as obesity, high blood pressure and diabetes.



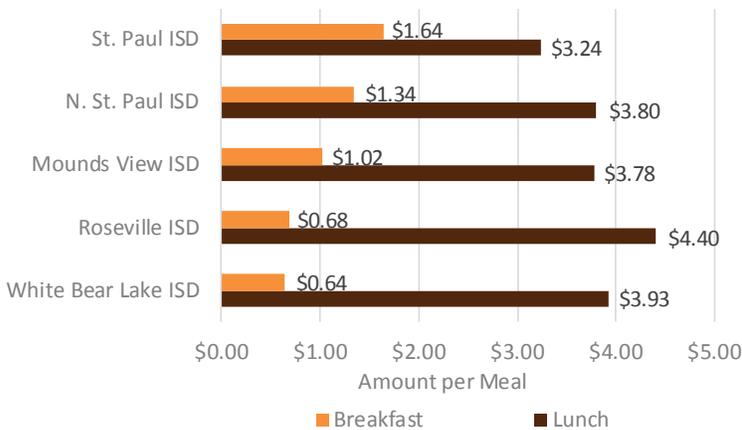
\*5th, 8th, 9th and 11th graders.  
Source: Minnesota Department of Education.<sup>5</sup>

### Cost of Breakfast and Lunch Meal in Public Schools, Minnesota and Ramsey County, 2015-2017



Source: Minnesota Department in Education.<sup>6</sup>

### Price per School-Provided Meal by School District, Ramsey County, 2017



Source: Minnesota Department of Education.<sup>6</sup>

<sup>5</sup> Minnesota Department of Education. Minnesota Student Survey 2013 and 2016. <http://w20.education.state.mn.us/MDEAnalytics/DataTopic.jsp?TOPICID=242>. Accessed November 2018.

<sup>6</sup> Food Service Financial Report. Minnesota Department in Education Web site. <http://w20.education.state.mn.us/MDEAnalytics/DataTopic.jsp?TOPICID=396>. Accessed November 2018.

# Breastfeeding Mothers Receiving WIC

## DESCRIPTION

Breastfeeding promotes long-term child health. Studies link breastfeeding to: improved child immunity, higher childhood intelligence, lower infant mortality, reduced dental problems, lower risk of obesity and less asthma.<sup>1</sup> Many benefits to mothers who breastfeed are documented as well. Breastfeeding rates are correlated with income.

## HOW WE ARE DOING

The percentage of Ramsey County women receiving WIC who breastfeed has increased steadily since 2012. Breastfeeding initiation increased from 70.2 percent in 2012 to 78 percent in 2016, which is an 11 percent increase. The number of mothers who are still breastfeeding after three months increased from 41.3 percent to 46.8 percent, a 13 percent increase.<sup>2</sup> Gains in breastfeeding initiation are most prominent among those self-identifying as African-American. From 2012 to 2015, there was a change from 62.2 to 72 percent breastfeeding initiation, a 15 percent increase. Continuation for three months was less remarkable, but still increased. WIC peer counselors play a critical role in supporting women in their goals to breastfeed.

## BENCHMARK INDICATOR

Healthy People 2020:

Increase the proportion of infants who have ever breastfed

U.S. Target: 81.9 percent

MN WIC Goal:

Increase the proportion of infants who are breastfed at three months

MN Target: 70 percent

## DISPARITIES

Disparities in breastfeeding rates exist between racial and ethnic groups in Ramsey County. In 2015, the breastfeeding initiation rate among African-American women who reported their parents and/or grandparents were born in the U.S. was 72 percent. The rate for those identifying as Somali or Somali-American was 97.8 percent.<sup>3</sup>

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

Saint Paul-Ramsey County Public Health's WIC program uses peer support to increase breastfeeding among their clients. Women who are voluntarily assigned to a peer breastfeeding counselor while pregnant are more likely to initiate breastfeeding, and less likely to wean after delivery.<sup>4</sup> Many breastfeeding peer counselors are from communities represented in Ramsey County's population: African-American, Hmong, Karen, Somali and Spanish-speaking women.

(continued on back)

## Information to note

- Breastfeeding rates are correlated with income.
- Even though breastfeeding initiation among women receiving WIC increased, the percentage remains below the Healthy People 2020 target.
- Between 2012 and 2016, breastfeeding initiation among women receiving WIC increased 11%. Breastfeeding continuation after three months increased 13%.
- Among African-American women receiving WIC, there was a 15 % increase in breastfeeding initiation.

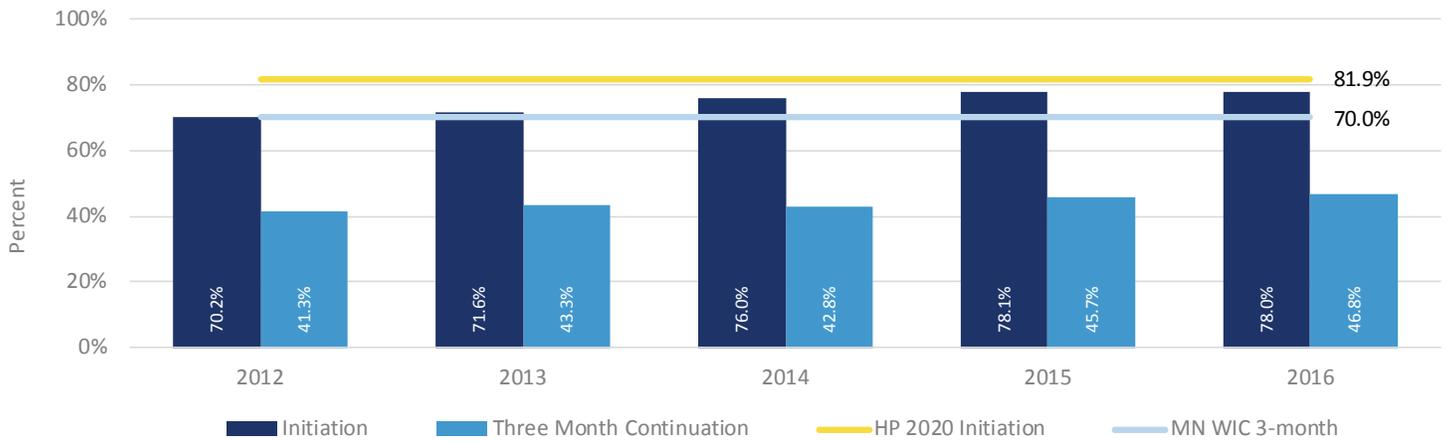
<sup>1</sup> Grummer-Strawn LM, Rollins N. Summarizing the health benefits of breastfeeding. *ACTA Paediatrica*. 2015. doi:10.1111/apa.13136.

<sup>2</sup> Breastfeeding Initiation and Duration at Two Weeks and Two, Three, Six and Twelve Months for Minnesota WIC Infants Born During Calendar Year 2016. Minnesota Department of Health WIC Program. <http://www.health.state.mn.us/divs/fh/wic/localagency/reports/bf/annual/2016bycounty.pdf> Accessed September 1, 2017.

<sup>3</sup> Saint Paul-Ramsey County Public Health, WIC database. 2015.

<sup>4</sup> Minnesota Department of Health, WIC Program. Memo, Research Article on the Effectiveness of Peer Counseling. August 2, 2017. <http://www.health.state.mn.us/divs/fh/wic/localagency/wedupdate/moyr/2017/topic/0802peer.pdf>. Accessed September 1, 2017.

Breastfeeding Among Mothers Receiving WIC, Ramsey County



Source: Minnesota Department of Health, WIC Program.<sup>5</sup>

<sup>5</sup> Minnesota Department of Health, WIC Program. WIC Information System.

# Family Planning and Birth Spacing

## DESCRIPTION

Family planning helps people achieve desired birth spacing and family size, and contributes to improved health outcomes for infants, children, women and families. In 2015, publicly funded family planning services helped prevent 1.9 million unintended pregnancies in the U.S., including 440,000 teen pregnancies. In 2010, every public dollar spent on family planning saved federal and state governments \$7.09.<sup>1</sup>

Unintended pregnancies are reported by women as being mistimed or unwanted. Each year, 45 percent of all pregnancies in the U.S. are unintended. Negative outcomes associated with unintended pregnancy can include: delays in starting prenatal care; reduced likelihood of breastfeeding; increased risk of maternal depression; and increased risk of physical violence during pregnancy.<sup>2</sup> Eighteen months or more is the ideal interval for birth spacing. Research suggests that beginning a pregnancy within six months of a live birth is associated with an increased risk of premature birth; low birth weight; congenital disorders and more.<sup>1</sup> Recent research suggests that a pregnancy within less than two years of a live birth may be associated with an increased risk of autism in second-born children. The risk is highest for pregnancies spaced less than 12 months apart.<sup>3</sup> “Rapid repeat pregnancy” or “repeat teen birth” is defined as having two or more pregnancies resulting in a live birth before age 20. Repeat teen childbearing further constrains the mother’s education and employment possibilities. Rates of preterm and low birth weight are higher in teens with a repeat birth, compared with first births.<sup>4</sup>

## HOW ARE WE DOING

In 2016, there were 9,399 pregnancies (a rate of 81.6 for every 1,000 population) and 7,731 births among Ramsey County women. Ramsey County had the highest pregnancy rate among all counties in Minnesota. Also in 2016, 3.3 percent of Ramsey County women with children had second births within a year. This means they became pregnant within three months of childbirth. For Ramsey County teens age 15-19, 3.3 percent had a second birth within a year of a previous birth.<sup>5</sup>

## BENCHMARK INDICATOR

Healthy People 2020: The current objective measures spacing between a birth and the next pregnancy, not between two consecutive births.<sup>2</sup>

## DISPARITIES

During 2011-2015, 2.4 percent of Ramsey County women with less than four years of high school had a repeat birth within a year (3.3 percent for African-American mothers; 2.5 percent for Asian mothers; 1.9 percent for white mothers; 1.5 percent for Hispanic mothers).

## RISK FACTORS

Nationally, the rates of unintended pregnancy are highest among the following groups: women ages 18 to 24; women who are cohabitating, living in poverty and with less than a high school diploma; and black or Hispanic women.<sup>6</sup> Traditional estimates understate the risk of teen pregnancy among adolescents because they typically include all women,

## Information to note

- In 2016, 3.3% of Ramsey County women delivered a second child within a year of a previous birth, the highest rate in the metro area.

<sup>1</sup> Guttmacher Institute. <https://www.guttmacher.org/fact-sheet/unintended-pregnancy-united-states>. Accessed October 27, 2017.

<sup>2</sup> Healthy People 2020. <https://www.healthypeople.gov/2020/topics-objectives/topic/family-planning/>. Accessed October 27, 2017.

<sup>3</sup> Mayo Clinic. <https://www.mayoclinic.org/healthy-lifestyle/getting-pregnant/in-depth/family-planning/art-20044072>. Retrieved October 27, 2017.

<sup>4</sup> Centers for Disease Control. <https://www.cdc.gov/mmwr/preview/mmwrhtml/mm6213a4.htm> Accessed October 27, 2017.

<sup>5</sup> Minnesota County Health Tables. Minnesota Department of Health Website. <http://www.health.state.mn.us/divs/chs/countytables/profiles2017/index.html>. Accessed February 14, 2018.

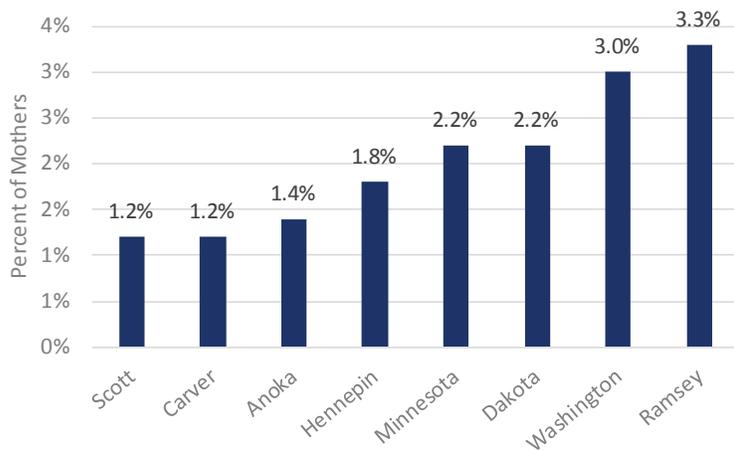
<sup>6</sup> Healthy People 2020. <https://www.healthypeople.gov/2020/topics-objectives/topic/family-planning/>. Accessed October 27, 2017.

regardless of whether they are sexually active. When rates are recalculated including only those sexually active, women 15–19 have the highest unintended pregnancy rate of any age group.<sup>7</sup>

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

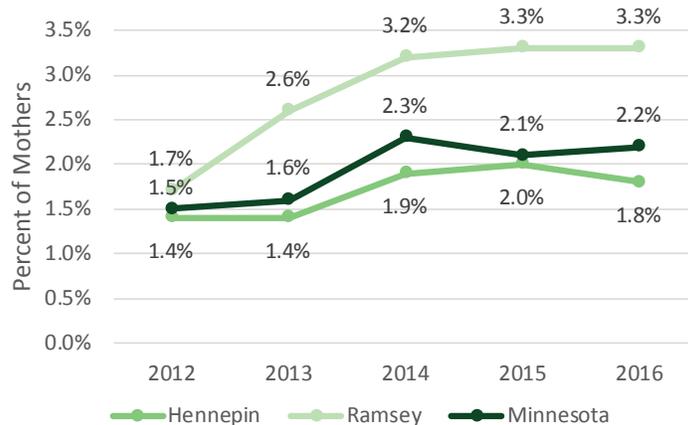
Saint Paul – Ramsey County Public Health offers numerous medically accepted forms of birth control through the Clinic 555 program, offered on a sliding fee based on family size and income. Public Health Nurses working in the Family Health division in Public Health provide education and resource to encourage healthy birth spacing to adult clients as well as to teen clients seen through the MFIP program. Additionally, Ramsey County provides funding to five Ramsey County community clinics to help off-set the cost of services, including family planning services, provided to uninsured and underinsured clients.

Births Within One Year of a Previous Birth, 2016



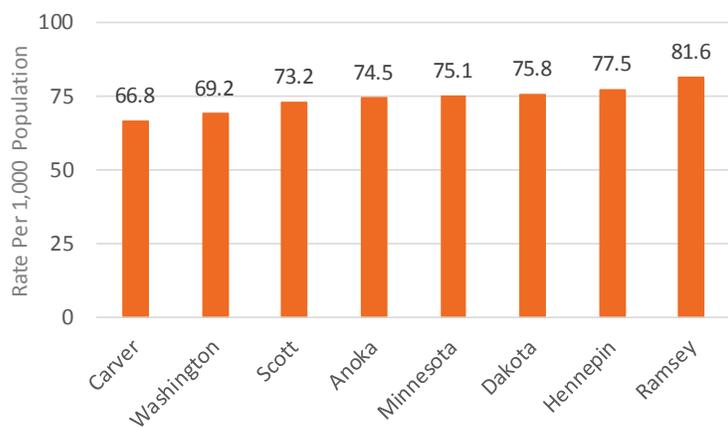
Source: Minnesota Department of Health Web site.<sup>8</sup>

Live Births within One Year Over Time



Source: Minnesota Department of Health, Minnesota Center for Health Statistics, County Health Tables

Pregnancy Rate, 2016



Source: Minnesota Department of Health Website.<sup>9</sup>

<sup>7</sup> Guttmacher Institute. <https://www.guttmacher.org/fact-sheet/unintended-pregnancy-united-states>. Accessed October 27, 2017.

<sup>8</sup> 2017 Minnesota County Health Tables. Minnesota Department of Health Web site. <http://www.health.state.mn.us/divs/chs/countytables/profiles2017/index.html>. Accessed February 7, 2018.

<sup>9</sup> Minnesota County Health Tables. Minnesota Department of Health Website. <http://www.health.state.mn.us/divs/chs/countytables/profiles2017/index.html>. Accessed February 14, 2018.

## DESCRIPTION

Infant mortality is defined as death to infants born live who die before the first birthday. Infant mortality is complex, with multiple associated factors. The five major causes of infant death at the national level are: birth defects, pre-term birth and low birth weight, sudden infant death syndrome (SIDS), pregnancy complications and injuries. The United States has a higher infant mortality rate than 27 other industrialized nations, with rates varying widely across regions. Infant mortality is considered a leading indicator of population health.<sup>1</sup>

## HOW WE ARE DOING

In 2016, the infant mortality rate in the United States was 5.9 deaths per 1,000 live births.<sup>1</sup> During that same year, the infant mortality rate in Minnesota was 5.0 per 1,000 per live births. The Ramsey County rate is higher at 6.3, which does not meet the Healthy People goal of less than 6 per 1000 live births. Over time, the overall infant mortality rates have generally been decreasing, however that is not true for all racial/ethnic groups.<sup>2</sup>

## BENCHMARK INDICATOR

Healthy People 2020: Reduce the rate of all infant deaths (within 1 year).

U.S. Target: Less than 6 per 1,000 live births.<sup>3</sup>

## DISPARITIES

Although the overall infant mortality rate for Ramsey County approaches the Healthy People 2020 target, the infant mortality rate 2014-2016 for infants born to African-American/African women was 11.5 per 1000, significantly higher than the rate of 4.3 for white infants. During that same time period, the infant mortality rate in Ramsey County was 7.6 for Asians and for Hispanics it was 4.7 per 1000 live births. The American Indian population is small in Ramsey County, so it is difficult to draw conclusions from it. However, statewide data indicates that the infant mortality rate for American Indians in Minnesota was 10.7.<sup>2</sup> Similar disparities among all racial/ethnic groups are evident at the national level. The specific cause of infant mortality is of special interest. While disparities between African-American/African and total and/or white populations exist in the five major causes of infant mortality, deaths to African-American/African infants are remarkably disparate due to the leading cause of death: pre-term birth and low-birth weight babies.<sup>4</sup>

Infant death is researched nationally through a framework of Perinatal Periods of Risk (PPOR), which divides fetal and infant deaths into four “Perinatal Periods of Risk” based on both birth weight and age at death. Intended for urban areas with high infant mortality, the PPOR uses vital records to get at root causes and intervention strategies.<sup>5</sup>

An international study examined the infant mortality rate gap between the U.S. and other countries with better rates (e.g. Finland). The U.S. has a similar neonatal mortality (deaths within first month of life) to other countries with low rates, but a substantial difference in post-neonatal mortality. The results of this study suggest that the gap is driven primarily by excess inequality in the U.S., i.e. disadvantaged mothers compared to advantaged mothers (e.g. white, college educated, married).<sup>6</sup>

## Information to note

- The Ramsey County infant mortality rate is higher than both Minnesota and U.S. rates, and does not meet the Healthy People 2020 goal.
- There are significant racial/ethnic disparities related to infant mortality.

<sup>1</sup> Reproductive Health. Centers for Disease Control & Prevention. <https://www.cdc.gov/reproductivehealth/maternalinfanthealth/infantmortality.htm>. Accessed August 2018.

<sup>2</sup> Health Statistics Portal. Minnesota Department of Health. <https://pqc.health.state.mn.us/mhsq/frontPage.jsp>. Accessed August 2018.

<sup>3</sup> Maternal, Infant and Child Health. Healthy People 2020. <https://www.healthypeople.gov/2020/topics-objectives/topic/maternal-infant-and-child-health/objectives>. Accessed August 2018.

<sup>4</sup> Anderson NB, Bulatao RA, Cohen B, eds. *Critical Perspectives on Racial and Ethnic Differences in Health in Late Life*. Washington, DC: National Academies Press; 2004.

<sup>5</sup> Perinatal Periods of Risk (PPOR). City Match. <https://www.citymatch.org/tools-and-trainings/ppor/>. Accessed August 2018.

<sup>6</sup> Chen A, Oster E, Williams H. Why is infant mortality higher in the US than in Europe? 2014. University of Chicago and NBER. <http://faculty.chicagobooth.edu/emily.oster/papers/imr.pdf>. Published September 29, 2014. Accessed August 2018.

In Minnesota, the majority of infant deaths are within a baby's first 28 days.<sup>7</sup>

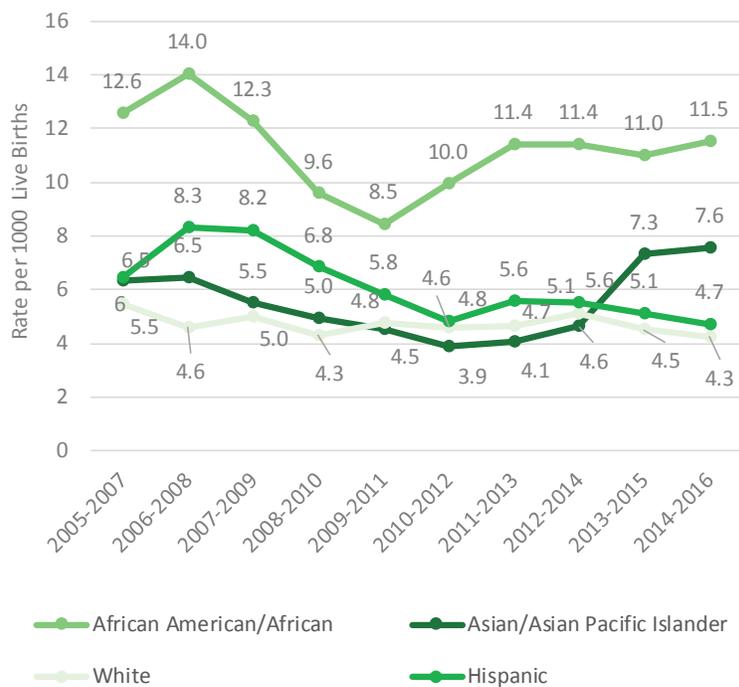
## RISK FACTORS

Deaths occurring in the neonatal period (first month of life) are due mostly to problems with the pregnancy or health of the infant, such as pre-term delivery, birth defects or low birth weight. Infant deaths occurring in the post-neonatal period are more likely to be the result of social and environmental factors such as sudden infant death syndrome (SIDS), exposure to cigarette smoke, or problems with access to health care.<sup>8</sup>

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

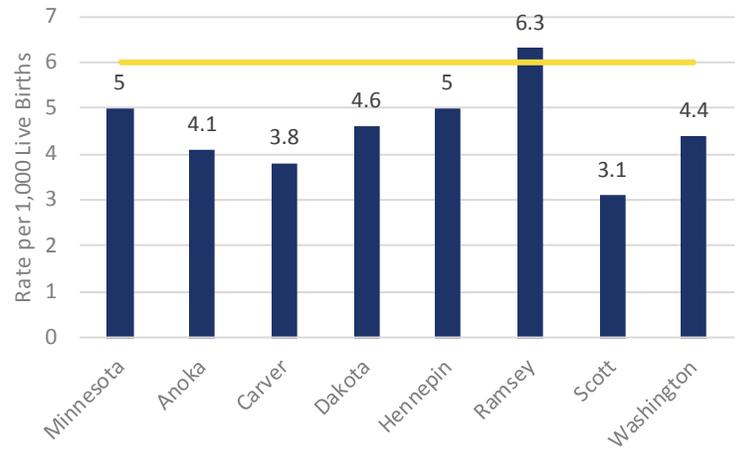
Saint Paul- Ramsey County Public Health started a Birth Equity Institute in 2017, in partnership with the national organization City MatCH, and academic and community organizations and members. The Minnesota Department of Health has also created an Infant Mortality Reduction Plan, and public health staff work closely with state partners to examine causes of infant mortality and find innovative ways in which to achieve lower infant mortality rates.

Infant Mortality Rates, Ramsey County  
3 Year Rolling Averages



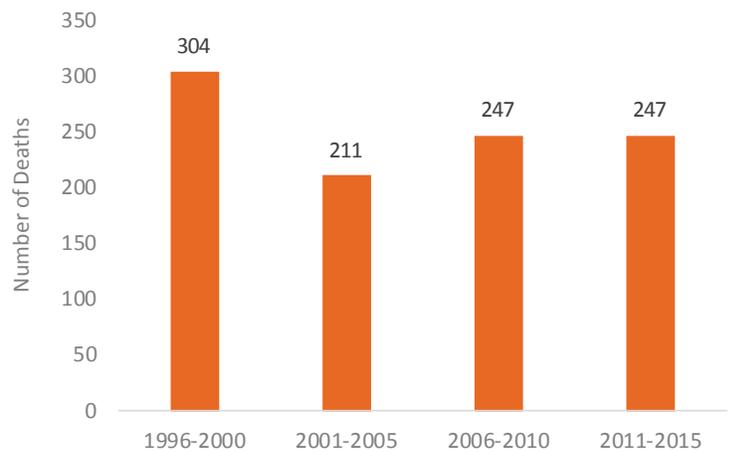
Source: Minnesota Department of Health. Minnesota Vital Statistics.<sup>10</sup>

Infant Mortality Rate, 2012-2016



Source: Minnesota Department of Health. County Profiles.<sup>9</sup>

Infant Deaths, Ramsey County



Source: Minnesota Department of Health. Minnesota Vital Statistics.<sup>10</sup>

<sup>7</sup> Infant mortality reduction plan for Minnesota (Part One). Minnesota Department of Health. 2015. <http://www.health.state.mn.us/divs/cfh/program/infantmortality/content/document/pdf/infantmortalityacc.pdf>. Published March 2015. Accessed August 2018.

<sup>8</sup> Disparities in Infant Mortality. Minnesota Department of Health. 2009. <http://www.health.state.mn.us/divs/chs/infantmortality/infantmortality09.pdf>. Published January 2009. Accessed August 2018.

<sup>9</sup> Minnesota Department of Health. County Profiles. <http://www.health.state.mn.us/web/mndata/county-profiles>. Accessed August 2018.

<sup>10</sup> Minnesota Department of Health. Minnesota Vital Statistics. <https://mhsq.web.health.state.mn.us/frontPage.jsp>. Accessed August 2018.

# Low Birth Weight

## DESCRIPTION

Birth weight is the first weight of a baby, taken after he or she is born. A low birth weight (LBW) is less than 5.5 pounds. A low birth weight baby can be born too small, too early (premature), or both. Babies born with LBW can have diabetes, heart disease, high blood pressure, and/or obesity later in life.<sup>1</sup> About one in 12 babies in the U.S. are born with LBW. LBW is often related to prematurity (less than 37 weeks gestation). Fetal growth restriction (also called growth-restricted, small for gestational age and small-for-date) is another reason for LBW. Growth-restricted babies may have LBW because their parents are small or because something slowed or stopped growth during pregnancy.

## HOW ARE WE DOING

In 2016, 5.8 percent of Ramsey County births of single babies were of low birth weight compared to 4.9 percent of Minnesota babies.<sup>2</sup> Considering all births (single and multiple), 7.3 percent of Ramsey County births were of low birth weight. Overall this meets the Healthy People 2020 goal, but not for all women of all races.

## BENCHMARK INDICATOR

Healthy People 2020: Reduce low birth weight  
U.S. Target: 7.8 percent of live births.<sup>3</sup>

## DISPARITIES

Although Ramsey County meets the Healthy People 2020 goal, there are large disparities for babies born to women of color. During 2014-2016, the percentage of LBW births for African-American women was 9.3 percent; 7.5 for American Indian residents; 7.4 percent for Asian/Asian Pacific Islander residents; 7.2 percent for Hispanic residents; and 6.4 percent for white residents. The percentage of LBW births is decreasing for African-American women, but rising for Hispanic women.<sup>4</sup>

## RISK FACTORS

There are many reasons a baby can be born with LBW. Women who deliver early, have chronic health conditions, infections, problems with their placenta, or have trouble gaining enough weight during pregnancy can have a LBW baby. Smoking, drinking alcohol, using street drugs and abusing prescription drugs can also cause a baby to be LBW. Pregnant women who smoke are twice as likely to have a LBW baby than nonsmokers. Also, mothers who have the following characteristics are at higher risk for low birth weight babies: have low education, low income, unemployed, non-white, or younger than 17 or older than 35.<sup>1</sup>

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

In late 2016, Saint Paul- Ramsey County Public Health became one of five groups in a national Birth Equity Institute, with the goal of decreasing infant mortality among African-American and American Indian women by intervening in contributing factors. Members of the Ramsey County Birth Equity Community Council, which includes county residents, community organizations, and representatives from Minnesota Departments of both Health and Human Services, determined in 2017 to focus on safe sleep messaging and parenting support for fathers.

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## Information to note

- African-American babies in Ramsey County are more likely to be born LBW than other babies, yet the percentage is decreasing.
- LBW births to Hispanic women are increasing.

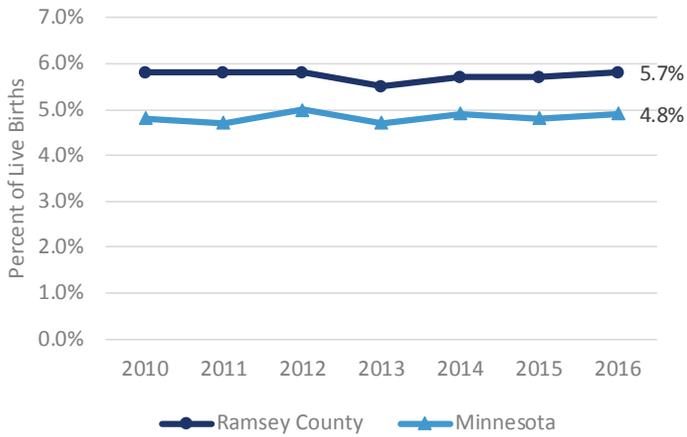
<sup>1</sup> Low Birthweight. March of Dimes. <https://www.marchofdimes.org/baby/low-birthweight.aspx>. Accessed October 27, 2017

<sup>2</sup> Minnesota Department of Health. MN County Health Tables. <http://www.health.state.mn.us/divs/chs/genstats/countyttables/index.htm>. Accessed February 7, 2018.

<sup>3</sup> Maternal, Infant, and Child Health. Healthy People 2020. <https://www.healthypeople.gov/2020/topics-objectives/topic/maternal-infant-and-child-health/objectives>. Accessed October 27, 2017.

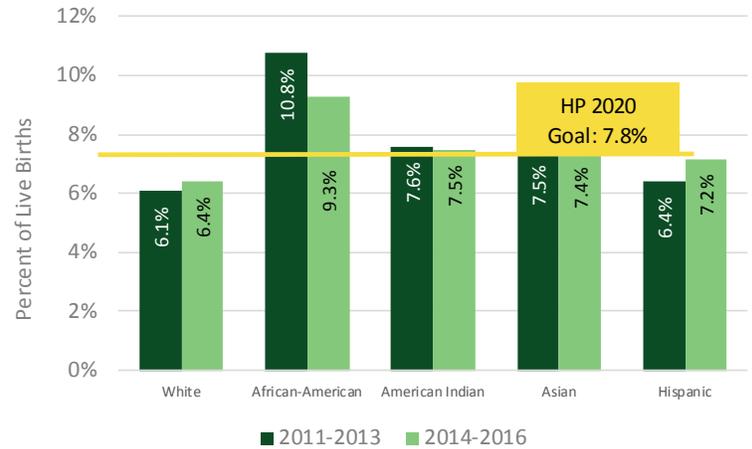
<sup>4</sup> Minnesota Center for Health Statistics. Birth Database 2011-2016. Minnesota Department of Health. <http://www.health.state.mn.us/divs/chs/>. Accessed August 2018.

### Low Birth Weight (Single Births) Over Time



Source: Minnesota Department of Health. MN County Health Tables.<sup>5</sup>

### Low Birth Weight, Ramsey County



Source: Minnesota Department of Health Center for Health Statistics.<sup>6</sup>

<sup>5</sup> Minnesota Department of Health. MN County Health Tables. <http://www.health.state.mn.us/divs/chs/countytables/>. Accessed February 7, 2018.

<sup>6</sup> Minnesota Department of Health Center for Health Statistics.

# Pregnancy and Birth - Youth

## DESCRIPTION

Teen pregnancy is closely linked to other risky behavior as well as a host of critical social issues—poverty and income, overall child well-being, out-of-wedlock births, responsible fatherhood, health issues, education and child welfare. There are also substantial public costs associated with adolescent childbearing.<sup>1</sup> Nationally, 82 percent of pregnancies to mothers ages 15 to 19 are unintended.<sup>2</sup> Children from unintended pregnancies are more likely to experience poor mental and physical health during childhood, and have lower educational attainment and more behavioral issues in their teen years.<sup>3</sup> Births resulting from unintended pregnancies can have negative consequences including birth defects and low birth weight.<sup>4</sup> Teen mothers: are less likely to graduate from high school or attain a GED by the time they reach age 30; earn an average of approximately \$3,500 less per year, when compared with those who delay childbearing until their 20s; and receive nearly twice as much federal aid for nearly twice as long.<sup>5,6</sup>

## HOW ARE WE DOING

Birth and pregnancy rates (per thousand) for teens often combine years due to the small count of births overall. Teen pregnancy rates differ from birth rates, are naturally higher and generally follow similar trends. During 2014-2016, the Ramsey County birth rate for teens ages 15-17 was 9.1 per 1,000 and for teens ages 18-19 years, 31.3 per 1,000. Ramsey County's teen birth rate declined 35 percent between 2010 and 2016. Despite this dramatic decline, it remains the highest among the metro area counties. Although teen birth rates are at a historic low, teens in the U.S. are far more likely to give birth than in any other industrialized country in the world.<sup>7</sup>

## BENCHMARK INDICATOR

Healthy People 2020:

1) Reduce pregnancies among adolescent females aged 15 to 17 years.

U.S. Target: 36.2 per 1,000 population. (Ramsey County is already below the goal.)

2) Reduce pregnancies among adolescent females aged 18 to 19 years

U.S. Target: 104.6 per 1,000 population. (Ramsey County is already below the goal.)

## DISPARITIES

Ramsey County's teen birth rates during 2013-2015 are nearly four times higher for African-American/African, American Indian and Asian/Asian Pacific Islander teens than they are for white teens, and nearly three times higher for Hispanic teens than they are for white teens.<sup>8</sup>

## Information to note

- Ramsey County's teen birth rate declined 35% from 2010-2016, yet remains the highest in the metro area.
- The greatest decline in teen births in Ramsey County was among African-Americans, but rates remain nearly four times higher than white teens.

<sup>1</sup> The National Campaign to Prevent Teen and Unwanted Pregnancy. <https://thenationalcampaign.org/why-it-matters/teen-pregnancy>. Accessed October 13, 2017.

<sup>2</sup> Frost, J, Frohwirth L, Blades N, et al. Publicly Funded Contraceptive Services at U.S. Clinics, 2015, New York: Guttmacher Institute, 2017.

<sup>3</sup> Logan C, Holcombe E, Manlove J, et al. The consequences of unintended childbearing: A white paper [Internet]. Washington: Child Trends, Inc.; 2007 May. <https://thenationalcampaign.org/sites/default/files/resource-primary-download/consequences.pdf>.

<sup>4</sup> Centers for Disease Control and Prevention. Preconception and interconception health status of women who recently gave birth to a live-born infant—pregnancy risk assessment monitoring system (PRAMS), United States, 26 Reporting Areas, 2004. MMWR Weekly. 2007 Dec 14;56(SS-10):1-40. <https://www.cdc.gov/mmwr/pdf/ss/ss5610.pdf> [PDF- 609 KB]. <https://www.healthypeople.gov/2020/topics-objectives/topic/family-planning>. Accessed 10/13/2017.

<sup>5</sup> Hoffman S, Maynard R, eds. Kids Having Kids: Economic Costs and Social Consequences of Teen Pregnancy, 2nd ed. Washington: Urban Institute Press; 2008.

<sup>6</sup> Hoffman S. By the Numbers: The Public Costs of Teen Childbearing. Washington: National Campaign to Prevent Teen Pregnancy; 2006. <https://thenationalcampaign.org/resource/numbers>. <https://www.healthypeople.gov/2020/topics-objectives/topic/family-planning>. Accessed October 13, 2017.

<sup>7</sup> Kearney MS and Levine, PB. Why is the teen birth rate in the United States so high and why does it matter? Journal of Economic Perspective. 2012 Spring;26(2):141-66.

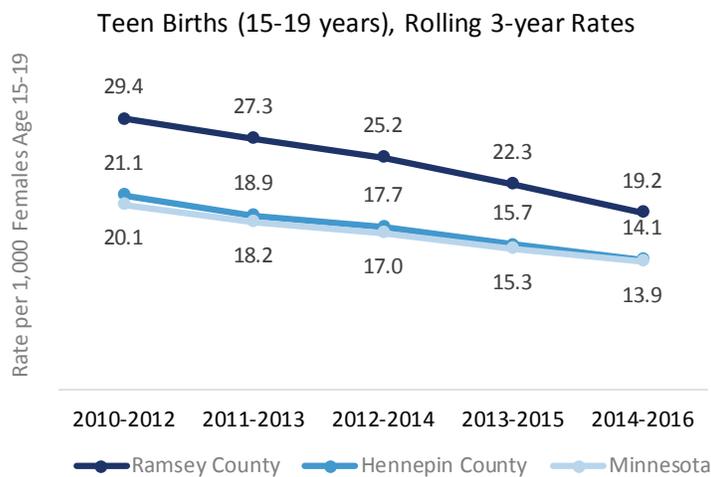
<sup>8</sup> Minnesota Department of Health. <http://www.health.state.mn.us/divs/chs/> Accessed October 13, 2017.

## RISK FACTORS

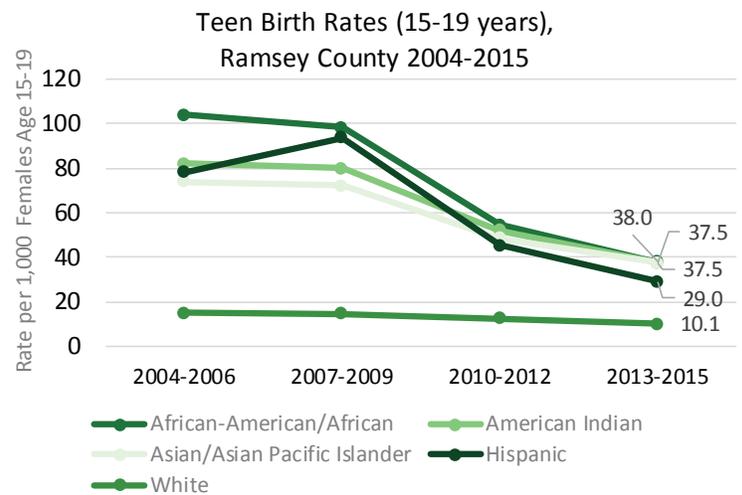
Teen birth is correlated with mothers' educational attainment, poverty status, race and ethnicity. Other socioeconomic conditions in communities and families may also contribute. These include: low education and low income levels of a teen's family; few opportunities in the community for positive youth involvement; neighborhood racial segregation and/or income inequality; and involvement in the welfare system.<sup>9</sup>

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

Since 2003, Ramsey County Public Health and Ramsey County Workforce Solutions have collaborated to serve teen parents on MFIP with home visiting and education resources to improve the likelihood of teen parents obtaining a high school diploma by age 19. The percentage of teen MFIP parents achieving a high school diploma has risen over time and is currently above 80% while the total number of teen MFIP parents has declined from more than 350 to less than 50 over the 15 years since the program began. Full-family services are also being developed and implemented through collaboration between Workforce Solutions, Social Services, Financial Assistance, Community Corrections, Public Health, Parks and Recreation, Libraries, the County Attorney's Office and several community non-profits to serve at risk children while serving their parents on public assistance.



Source: Minnesota Department of Health, Center for Health Statistics.<sup>10</sup>



Source: Minnesota Department of Health.<sup>11</sup>

## Teen Birth and Pregnancy Rates, 2014 - 2016

	Birth Rates per 1,000			Pregnancy Rates per 1,000		
	15-17 yrs	18-19 yrs	15-19 yrs	15-17 yrs	18-19 yrs	15-19 yrs
Minnesota	5.8	26.3	13.9	8.0	34.5	18.6
Anoka	4.3	24.6	11.1	7.3	34.2	16.4
Carver	0.8	11.7	4.5	1.4	14.9	6.0
Dakota	3.2	23.2	9.9	4.8	33.6	14.5
Hennepin	6.8	24.9	14.1	10.4	38.9	21.9
Ramsey	9.1	31.3	19.2	13.0	42.6	26.4
Scott	2.1	17.9	7.0	3.3	26.4	10.5
Washington	1.9	18.0	7.2	3.7	24.9	10.8

Source: Minnesota Department of Health, Center for Health Statistics.<sup>10</sup>

<sup>9</sup> Centers for Disease Control. <https://www.cdc.gov/teenpregnancy/about/social-determinants-disparities-teen-pregnancy.htm>. Accessed October 13, 2017.

<sup>10</sup> Minnesota Department of Health, Center for Health Statistics. <http://www.health.state.mn.us/divs/chs/countytables/>. Accessed December 4, 2017.

<sup>11</sup> Minnesota Department of Health, Center for Health Statistics. <http://www.health.state.mn.us/divs/chs/>. Accessed October 13, 2017.

## DESCRIPTION

It is important for women to begin prenatal appointments during their first three months of pregnancy. Women who begin prenatal care during their second or third trimester can have babies that are born too early or with a low birth weight.

## HOW WE ARE DOING

During 2012-2016, only 73.7 percent of pregnant women in Ramsey County started prenatal care in the first trimester. This was less than the previous five-year period when 80 percent started prenatal care in their first trimester. Among the pregnant women who did not start prenatal care on time, 20 percent started care in their second trimester and 5 percent in their third trimester. During 2011-2015, the number of Hispanic women in Ramsey County receiving prenatal care in their first three months of pregnancy increased from 76 to 77 percent. African-American women remained steady at 69 percent and first trimester prenatal care decreased from 62 to 60 percent for Asian women. The decrease was more significant for American Indian women in Ramsey County- 64 to 53 percent during the same period. In 2016, 81.4 percent of pregnant Minnesota women and 74.7 percent of pregnant Ramsey County women received prenatal care during their first trimester.<sup>1</sup> During that same year, the national rate of first trimester care was 77.1 percent.<sup>2</sup> Compared to other counties in the seven-county metro area, only Ramsey County is not meeting the Healthy People 2020 goal.<sup>3</sup>

## BENCHMARK INDICATOR

Healthy People 2020: Increase the proportion of pregnant women who receive prenatal care beginning in the first trimester  
U.S. Target: 77.9 percent<sup>2</sup>

## DISPARITIES

During 2011-2015, American Indian women were 32 percent less likely to receive prenatal care during their first trimester than white women. Asian women were 31 percent less likely; African-American women were 21 percent less likely; and Hispanic women were 13 percent less likely than white women in Ramsey County to receive prenatal care during their first trimester. Only 56 percent of Ramsey County women 19 or younger received care in their first three months.<sup>1</sup>

## RISK FACTORS

Young age, being nonwhite and low education are related to pregnant women getting late prenatal care.<sup>2</sup>

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

Saint Paul-Ramsey County Public Health offers home visiting services to more than 1,000 families each year. These visits help pregnant women find resources and support, including prenatal care. Public Health's Family Health Division also works closely with Minnesota's Prepaid Medical Assistance Plans to help pregnant women get care. The public health department also runs Child and Teen Checkups, a program that helps women under 22 on public insurance find routine health and prenatal care.

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## Information to note

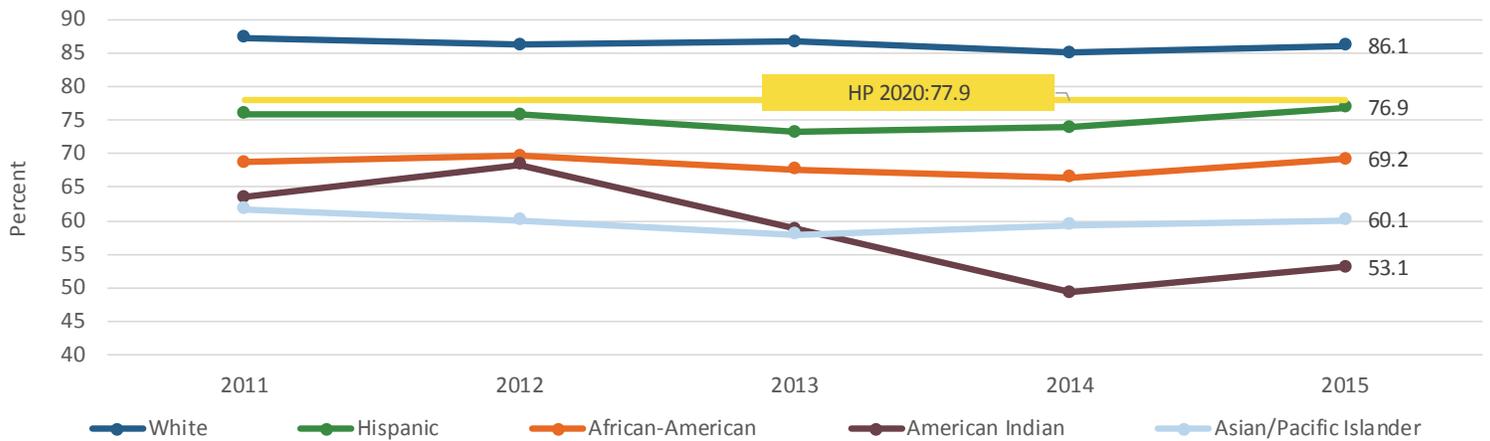
- In the past five years, the percentage of pregnant women in Ramsey County receiving prenatal care in their first trimester declined.
- Only 56 percent of women 19 or younger received prenatal care in their first trimester during 2011-2015.
- Nonwhite women of all races and ethnicities are less likely to receive prenatal care in the first trimester.

<sup>1</sup> Minnesota Center for Health Statistics. Minnesota Department of Health. <http://www.health.state.mn.us/divs/chs>. Accessed May 15, 2018.

<sup>2</sup> National Center for Health Statistics. 2015 Natality Public Use File. <https://www.dhs.wisconsin.gov/wish/prenatal-care/data.htm>. Accessed February 2018.

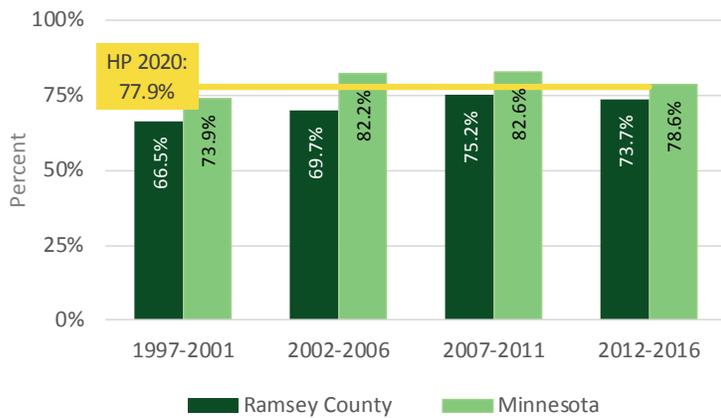
<sup>3</sup> Maternal, Infant and Child Health. Healthy People 2020. <https://www.healthypeople.gov/2020/topics-objectives/topic/maternal-infant-and-child-health/objectives>. Accessed February 9, 2018.

## Women Receiving 1st Trimester Prenatal Care by Race/Ethnicity, Ramsey County



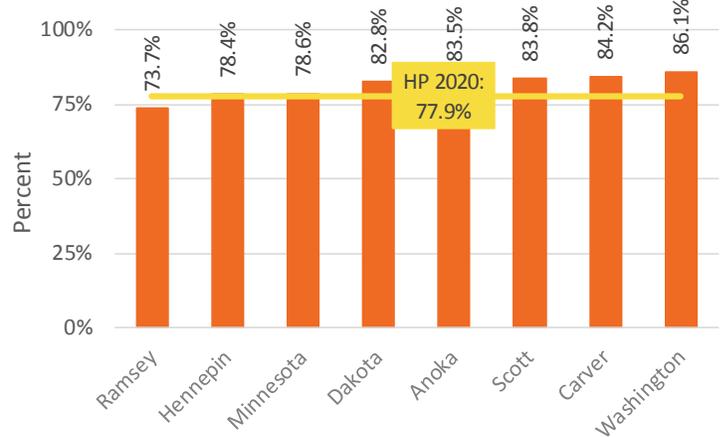
Source: Minnesota Department of Health.<sup>4</sup>

## Women Receiving Prenatal Care in the 1st Trimester Over Time, Ramsey County



Source: County Health Table Trends.<sup>5</sup>

## Women Receiving Prenatal Care in the 1st Trimester, 2012-2016



Source: County Health Table Trends.<sup>5</sup>

<sup>4</sup> Minnesota Department of Health. Center for Health Statistics. <http://www.health.state.mn.us/divs/chs> Accessed October 13, 2017.

<sup>5</sup> County Health Table Trends. Minnesota Center for Health Statistics, MDH. Accessed February 26, 2018.

# Special Supplemental Nutrition Program (WIC)

## DESCRIPTION

The Special Supplemental Nutrition Program for Women, Infants and Children (WIC) serves women and children at nutritional risk by providing nutrition education, breastfeeding support, nutritious foods, and referrals to health care and community programs for pregnant, breastfeeding or postpartum women and infants and children until age 5. WIC is administered by the Food and Nutrition Service of the U.S. Department of Agriculture. WIC services are free of charge and are available at six WIC clinic sites in Ramsey County. Studies demonstrate that the WIC Program is cost effective in protecting and improving the health and nutritional status of low-income women, infants and children including positive birth outcomes; savings in health care costs; positive diet and nutritional outcomes; successful infant feeding practices; immunization rates; obtaining a regular source of medical care; cognitive development; pre-conception nutritional status; and more.<sup>1</sup>

## HOW WE ARE DOING

More than half of all Ramsey County children ages birth until five participate in WIC.<sup>2</sup> Saint Paul – Ramsey County Public Health's WIC program served 28,856 women, infants and children in 2017: 7,957 women; 8,201 infants under 1, and 12,698 children age 1-5. In Minnesota, several health indicators are tracked for infants, children age 2-5 and women enrolled in WIC. Saint Paul – Ramsey County Public Health increased WIC breastfeeding rates and reduced high weight in WIC children since 2012. Reflecting statewide trends, anemia in both women and children as well as high pre-pregnancy weight have increased since 2012.<sup>3</sup>

## DISPARITIES

In 2017, 87 percent of Ramsey County WIC participants were non-white or Hispanic. African-American and Asian residents made up almost two-thirds of Ramsey County's WIC population. In August 2017, 37.5 percent of WIC's African-American participants self-identified as multigenerational U.S. black and 32.7 percent self-identified as Somali or Somali-American. Among Asian WIC participants, 68.5 percent self-identified as Hmong or Hmong-American, and 21.1 percent self-identified as Karen or Karen-American.<sup>2</sup>

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

Saint Paul-Ramsey County Public Health WIC staff work collaboratively with other Ramsey County departments to establish and maintain space for working women to breastfeed or express breast milk. Other collaborative partnerships include WIC working with families who need assistance in the SNAP or MA application process, with libraries to increase early literacy among WIC participant households and with Ramsey County's six school districts to share demographic information about WIC's three-year-olds that the school districts will use to contact families about Early Childhood Screening.

## Information to note

- During 2015, Saint Paul-Ramsey County Public Health issued \$14 million worth of food vouchers to WIC clients.
- Saint Paul-Ramsey County Public Health's WIC caseload declined slightly in 2016 but the percentage of those at higher nutritional risk increased.
- Breastfeeding rates for WIC mothers have increased since 2012, for initiation as well as duration at the 1, 3, 6 and 12 month marks.
- The percentages of overweight, obese and very obese Ramsey County 2-5 year olds all decreased since 2012.
- Ramsey County WIC has done better than the statewide average in getting Medicaid moms enrolled in WIC, and in getting these moms enrolled earlier in their pregnancies. The longer moms participate during their pregnancies, the better the birth outcomes.

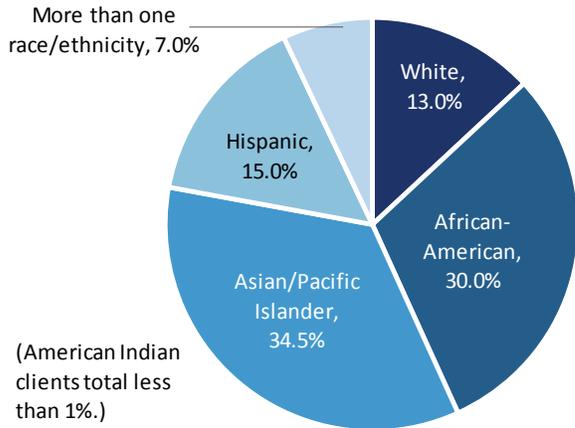
<sup>1</sup> U.S. Department of Agriculture, Food and Nutrition Service. <https://www.fns.usda.gov/wic/women-infants-and-children-wic>. Accessed September 7, 2017.

<sup>2</sup> Saint Paul-Ramsey County Public Health WIC database. 2016.

<sup>3</sup> Minnesota Department of Health WIC Information System, 2017. <http://www.health.state.mn.us/divs/fh/wic/localagency/reports/index.html>. Accessed March 6, 2018

# Special Supplemental Nutrition Program (WIC)

Individuals Receiving WIC Services, Ramsey County, 2017



Source: Saint Paul - Ramsey County Public Health

WIC Health Indicators Summary

	Minnesota		Ramsey County	
	2012	2015	2012	2015
<b>Infants</b>				
<b>Breastfeeding</b>				
Initiation	76.0%	80.6%	70.5%	77.9%
Duration 1 mo	57.7%	62.4%	55.0%	59.8%
Duration 3 mos	43.2%	47.8%	41.3%	45.6%
Duration 6 mos	32.1%	35.6%	30.9%	33.9%
Duration 12 mos	13.6%	18.6%	14.7%	18.1%
<b>Women</b>				
<b>Anemia</b>				
Prenatal (any trimester)	10.2%	14.8%	12.2%	16.7%
Prenatal (3rd trimester)	26.6%	32.3%	32.6%	37.7%
Postpartum	31.0%	34.9%	39.6%	48.3%
<b>Weight Status Pre-pregnancy</b>				
Overweight/Obese/Very Obese	58.2%	65.5%	56.0%	63.5%
<b>Children</b>				
Anemia 0-5yrs	10.9%	13.3%	15.1%	18.9%
Overweight 2-5 yrs ( $\geq$ 85th to $<$ 95th percentile)	16.0%	16.0%	16.7%	15.9%
Obese 2-5 yrs ( $\geq$ 95th to $<$ 97.5th percentile)	4.7%	4.5%	5.5%	4.3%
Very Obese 2-5 yrs ( $\geq$ 97.5th percentile)	8.0%	8.1%	9.0%	8.7%

Source: Minnesota Department of Health WIC Information System 2017.<sup>4</sup>

<sup>4</sup> Minnesota Department of Health WIC Information System 2017. <http://www.health.state.mn.us/divs/fh/wic/localagency/reports/index.html> Accessed March 6, 2018

# Substance Use During Pregnancy

## DESCRIPTION

Tobacco smoking during pregnancy has long been associated with premature birth and low birth weight in babies. It is also linked to birth defects and infant death, as well as miscarriage or fertility problems in women.<sup>1</sup> Fetal Alcohol Spectrum Disorder (FASD) is a range of effects that can occur in someone whose mother drank alcohol during pregnancy. The prevalence of FASD is as high as 2-4 percent in some populations. FASD is considered the most commonly identifiable cause of developmental delays and intellectual disabilities in children- and the most underrecognized. About half of all childbearing age women in the U.S. report consuming alcohol within the past month, and nearly eight percent of women said they continued to consume alcohol during pregnancy. A recent study found increased risk of infant growth delay even when a pregnant woman had only one alcoholic drink per day.<sup>2</sup>

Drug use during pregnancy can cause premature birth, heart defects, infections including hepatitis or HIV, low birth weight or Neonatal Abstinence Syndrome (NAS) in newborns. About one in 20 women nationally report using street drugs such as cocaine, heroin, marijuana, or prescription drugs recreationally during their pregnancy. Babies born to women who use drugs may have problems later in life, including learning and behavior problems, slower-than-normal growth, or Sudden Infant Death Syndrome (SIDS).<sup>3</sup> Babies delivered with NAS stay in hospitals for 2-3 weeks longer than other babies.<sup>4</sup>

## HOW WE ARE DOING

During 2011-2015, 11 percent of Ramsey County women reported tobacco use during or just before pregnancy. The percentage during 2008-2011 was lower at 8.3 percent.<sup>5</sup>

### BENCHMARK INDICATOR

Healthy People 2020: Increase abstinence from cigarette smoking among pregnant women.

U.S. Target: 98.6 percent<sup>6</sup>

## DISPARITIES

There are disparities in tobacco use among pregnant women in Ramsey County. American Indian women used tobacco most often (39 percent) followed by 14 percent of African-American women. Five percent of Asian/Pacific Islander, eight percent of Hispanic, and 13 percent of white women reported cigarette use during pregnancy.<sup>5</sup>

## RISK FACTORS

Disparities among women who smoke cigarettes suggests that tobacco industry marketing campaigns have historically targeted racial minorities and women.<sup>7</sup>

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## Information to note

- During 2011-2015, 39% American Indian, 14% African-American, 13% of white women, 8% Hispanic, and 5% Asian/Pacific Islander women used tobacco during pregnancy.
- Ramsey County is not meeting the Healthy People 2020 target for tobacco use during pregnancy.

<sup>1</sup> Tobacco Use and Pregnancy. Centers for Disease Control & Prevention. <https://www.cdc.gov/reproductivehealth/maternalinfanthealth/tobaccousepregnancy/index.htm>. Accessed December 2, 2017.

<sup>2</sup> AAP Says No Amount of Alcohol Should be Considered Safe During Pregnancy. American Academy of Pediatrics. <https://www.aap.org/en-us/about-the-aap/aap-press-room/pages/AAP-Says-No-Amount-of-Alcohol-Should-be-Considered-Safe-During-Pregnancy.aspx>. Published October 19, 2015. Accessed December 2, 2017.

<sup>3</sup> Street Drugs During Pregnancy. March of Dimes. <https://www.marchofdimes.org/pregnancy/street-drugs-and-pregnancy.aspx>. Accessed December 2, 2017.

<sup>4</sup> Opioid Use Disorder in Pregnancy. The American Congress of Obstetricians and Gynecologists. <https://www.acog.org/About-ACOG/ACOG-Districts/District-II/Opioid-Use-Disorder-in-Pregnancy> Accessed December 2, 2017.

<sup>5</sup> Minnesota Department of Health. (2017). Vital Records. <http://www.health.state.mn.us/divs/chs/osr/>.

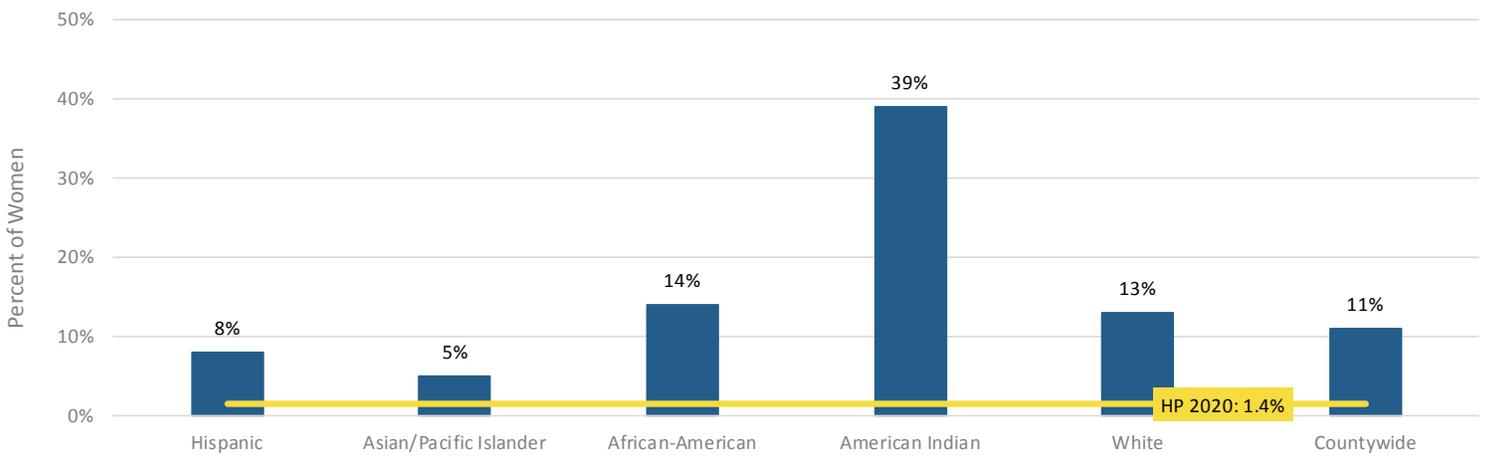
<sup>6</sup> Maternal, Infant, and Child Health. Healthy People 2020. <https://www.healthypeople.gov/2020/topics-objectives/topic/maternal-infant-and-child-health/objectives>. Accessed February 9, 2017.

<sup>7</sup> Giovino GA, et al. Differential trends in cigarette smoking in the USA: Is menthol slowing progress? *Tob Control*. 2015;24:28-37. <https://tobaccocontrol.bmj.com/content/24/1/28>. Accessed August 2018.

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

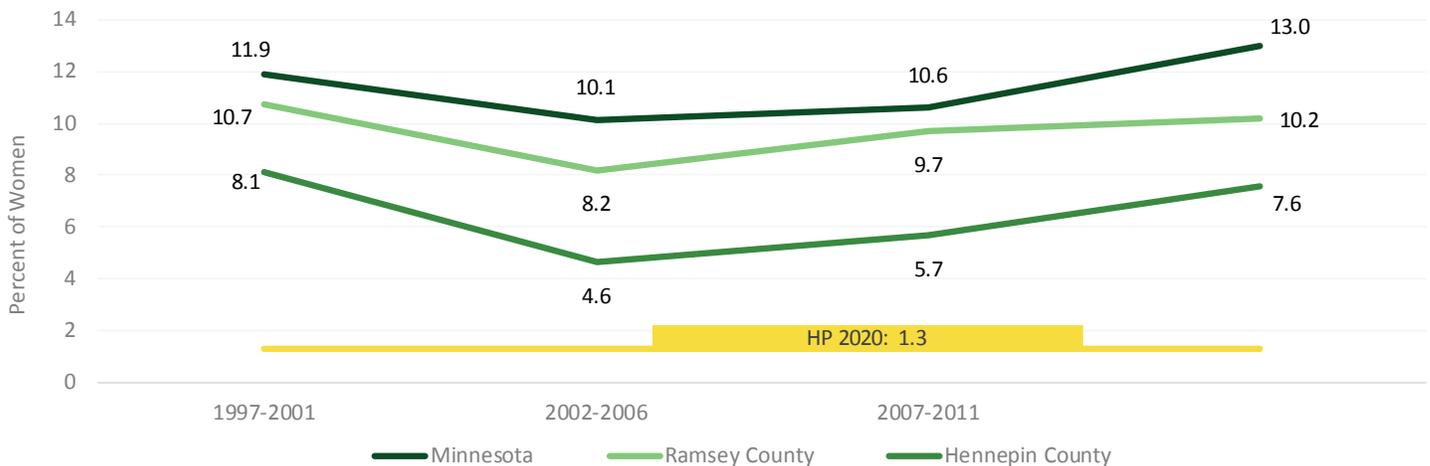
Reports of pregnant women using drugs or alcohol are taken by Ramsey County Children’s Intake screeners. The reports are all referred to the Ramsey County Mother’s First Program. Mother’s First is an intervention and recovery program staffed by an interdisciplinary team of public health nurses, social workers and Licensed alcohol and drug counselors for women who are pregnant and are using drugs or alcohol. Additionally, the nurse family home visiting delivered by Saint Paul – Ramsey County Public Health discusses tobacco, alcohol and substance use with pregnant and parenting women, offering them support for quitting, health and motivational resources.

Tobacco Use During Pregnancy, Ramsey County, 2011-2015



Source: Minnesota Department of Health Vital Records.<sup>8</sup>

Tobacco Use During Pregnancy Over Time



Source: Minnesota Department of Health.<sup>9</sup>

<sup>8</sup> Minnesota Department of Health Vital Records.

<sup>9</sup> Source: 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.

## DESCRIPTION

Human immunodeficiency virus (HIV) is a virus spread through certain body fluids that attacks the body's immune system. Acquired immunodeficiency virus (AIDS) refers to a set of symptoms and illnesses that occur at the very final stage of HIV. Over time, HIV destroys so many cells, specifically CD4 (T cells) that the body can no longer fight off infection and disease. HIV is spread most often through sexual contact; contaminated needles or syringes shared by drug use; infected blood or blood products; and from infected women to their babies at birth or through breastfeeding. Opportunistic infections or cancers take advantage of a very weak immune system and signal that the person has AIDS. No effective cure currently exists, but with proper medical care, HIV can be controlled.<sup>1</sup>

## HOW WE ARE DOING

In 2016, Ramsey County's HIV diagnoses made up 14 percent of the state total and 16.6 percent of the metro total. HIV diagnoses between 2013 and 2016 averaged 31.5 cases annually in Ramsey County. HIV diagnoses have fluctuated during this time period, hitting a high in 2014 with 39 diagnoses. AIDS diagnoses have also fluctuated during this time, averaging 21.5 cases annually. In 2016, Ramsey county total AIDS diagnoses made up 20.4 percent of the metro total and 16 percent of the state total.<sup>2</sup>

## BENCHMARK INDICATOR

Healthy People 2020: Reduce the number of new HIV diagnoses.

U.S. Target: Ten percent reduction for each year 2014-2017, and 15 percent reduction for each year 2018-2020.<sup>3</sup>

## DISPARITIES

In 2015, most people living with HIV or AIDS in Minnesota were male (76 percent), white (50 percent), and over the age of 45 (58 percent). African-American people are affected disproportionately in Minnesota.<sup>4</sup>

## RISK FACTORS

HIV in Minnesota is primarily driven by sexual exposure. For males, sexual contact with other men is the primary mode of exposure. For females, most cases are due to heterosexual contact.<sup>4</sup> When a person is infected, the following body fluids have been proven to spread HIV: blood, semen, vaginal fluid and breast milk.<sup>5</sup>

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

Recently, Saint Paul – Ramsey County Public Health's Clinic 555 made HIV prevention, outreach, diagnostic and referral services a priority. Some of these improvements include integrating a new laboratory test that detects HIV sooner and adding additional HIV prevention services including pre-exposure prophylaxis (PrEP) and post-exposure prophylaxis (PEP). If these treatments are followed correctly, they can decrease the chances of contracting HIV among high-risk clients. In 2018, Saint Paul – Ramsey County Public Health received funding from the Minnesota Department of Health to target residents who are at higher risk for contracting HIV, including: injection drug users, African-American men, African-born women and Latino men who have sex with men.

## Information to note

- African-American residents are affected disproportionately with HIV.
- HIV and AIDS diagnoses among Ramsey County residents make up about 16% of cases in Minnesota.
- Ramsey County is not meeting the Healthy People 2020 target of a 10% reduction in new HIV diagnoses.

<sup>1</sup> What Are HIV and AIDS? HIV.Gov. <https://www.hiv.gov/hiv-basics/overview/about-hiv-and-aids/what-are-hiv-and-aids>. Accessed June 2018.

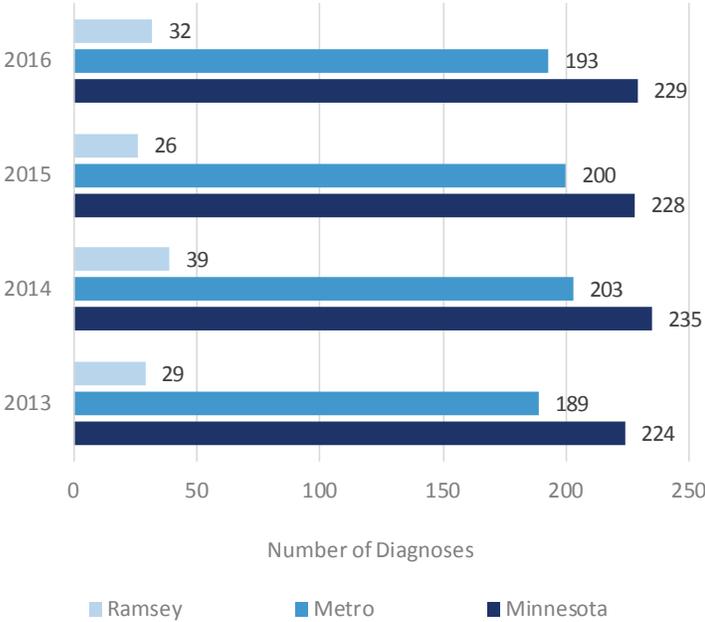
<sup>2</sup> Data and Statistics. Minnesota Department of Health. <http://www.health.state.mn.us/macros/topics/stats.html>. Accessed June 2018.

<sup>3</sup> Reduce new HIV Infection. Healthy People 2020. [https://www.healthypeople.gov/node/4607/data\\_details](https://www.healthypeople.gov/node/4607/data_details). Accessed June 2018.

<sup>4</sup> Minnesota HIV/AIDS Epidemiologic Profile. Minnesota Department of Health. <http://docplayer.net/21274337-Minnesota-hiv-aids-epidemiologic-profile.html>. Accessed June 2018.

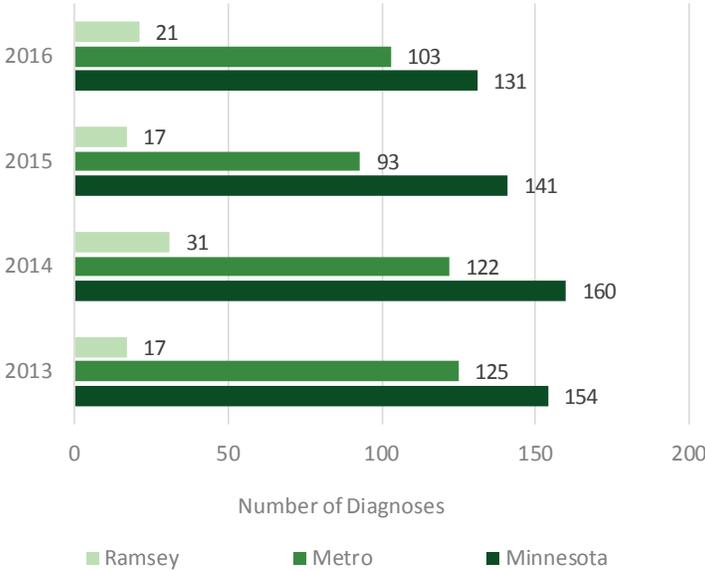
<sup>5</sup> Human Immunodeficiency Virus (HIV)/Acquired Immunodeficiency Syndrome (AIDS). Minnesota Department of Health. <http://www.health.state.mn.us/hiv>. Accessed October 16, 2017.

Total Number of HIV Diagnoses by Year



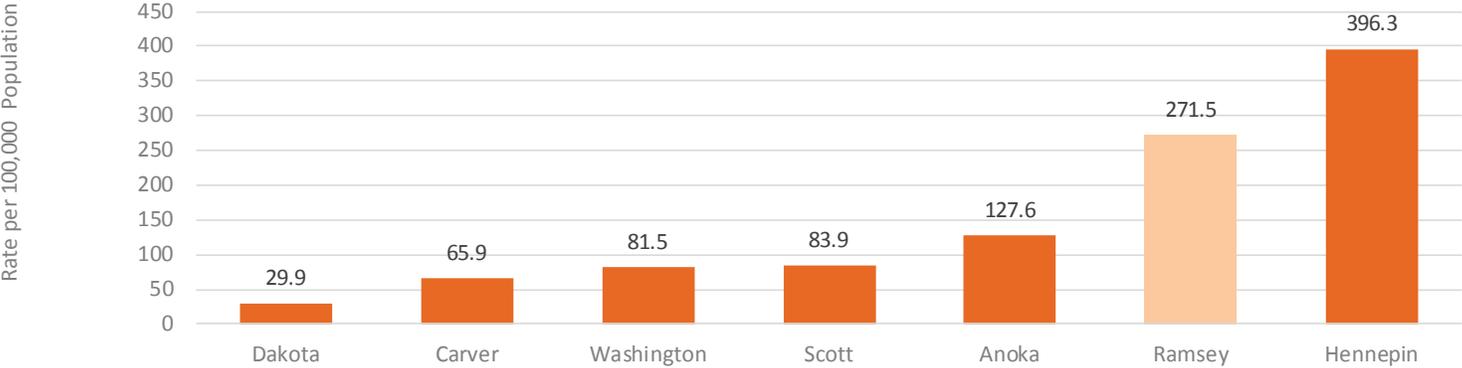
Source: Minnesota Department of Health.<sup>6</sup>

Total Number of AIDS Diagnoses by Year



Source: Minnesota Department of Health.<sup>6</sup>

Residents Living with HIV and AIDS, 7-County Metro, 2016



Source: Minnesota Department of Health.<sup>6</sup>

<sup>6</sup>Source: Data and Statistics. Minnesota Department of Health Web site. <http://www.health.state.mn.us/macros/topics/stats.html>. Accessed June 2018.

# Sexually Transmitted Diseases and Infections

## DESCRIPTION

More than 1 million sexually transmitted diseases (STDs) are acquired every day worldwide.<sup>1</sup> STDs are spread predominantly by sexual contact. More than 30 different bacteria, viruses and parasites are known to be sexually transmitted with eight of these pathogens linked to most STDs. Four of these STDs are curable: chlamydia, gonorrhea, syphilis and trichomoniasis. Another four (hepatitis B, herpes, HIV and human papillomavirus) are incurable but symptoms can be managed with treatment.<sup>1</sup> If left untreated, STDs can cause harmful, often irreversible complications.

## HOW WE ARE DOING

In Minnesota, the gonorrhea rate increased between 2013-2017 from 73 per 100,000 population to 123 per 100,000 (6,519 cases). This compares to the 2017 Ramsey County rate of 233 per 100,000, which represents 1,184 cases.<sup>2</sup> Rates among adults ages 15-44 have been gradually rising. In 2016, the gonorrhea rate for females was 402 per 100,000 and the rate for young males was 369 per 100,000. This does not meet the Healthy People 2020 goal.<sup>3</sup> The Minnesota chlamydia rate increased between 2013-2017 from 353 per 100,000 population to 444, which represents 23,528 cases. This compares to the 2017 Ramsey County rate of 660 per 100,000, which represents 3,356 cases.<sup>2</sup> The Minnesota rate for syphilis (all stages) increased between 2013-2017 from 10.1 per 100,000 population to 17.6, which represents 934 cases. In 2017, 83 percent of all male cases were among men who have sex with men.<sup>2</sup> In 2016 in Ramsey County, there were 119 syphilis diagnoses: 39 early latent syphilis, 44 late latent, 15 primary and 21 secondary.<sup>3</sup>

Preventing STDs by using safe sex practices is key to slowing the spread of these diseases. According to the 2016 Minnesota Student Survey, when students were asked if they had ever spoken to their sexual partners about safe sex and STD prevention, only 61.2 percent of 11th-graders and 52 percent of 9th-graders in Ramsey County reported having this conversation with every partner. There was also a sizable population that had never talked about protection with their partner: 24.3 percent of sexually-active 11th graders and 35.1 percent of sexually-active 9th graders.<sup>4</sup>

## BENCHMARK INDICATOR

Healthy People 2020<sup>5</sup>: Reduce gonorrhea rates in population aged 15-44 years.

U.S. Targets: Females: 251.9 new cases per 100,000 population. Males: 194.8 new cases per 100,000 population.

## DISPARITIES

Persons of color in Minnesota are disproportionately affected by STDs. When compared with white Minnesotans; the 2017 chlamydia rates for African-Americans (non-Hispanic) were 9.7 times higher; the American Indian rate was 5 times higher; the Asian rate was times higher; and the Hispanic (of any race) rate was 3 times higher. The 2017 gonorrhea rates compared with whites: African-American (non-Hispanic) rate was 20 times higher; American Indian rate was 13 times higher; Asian rate was 2 times higher; and Hispanic (of any race) rate was 3 times higher.<sup>3</sup> STDs also disproportionately affect youth. In 2017, youth (ages 15-24 years) accounted for 62 percent of chlamydia and 45 percent of gonorrhea cases reported.<sup>2</sup>

## Information to note

- The gonorrhea rate for Ramsey County is 233 new cases per 100,000, which is higher than the Minnesota rate of 123 and does not meet the Healthy People 2020 target.
- The chlamydia rate for Ramsey County is 660 new cases per 100,000, which is higher than the Minnesota rate of 444.

<sup>1</sup> Sexually Transmitted Infections (STIs). World Health Organization. <http://www.who.int/mediacentre/factsheets/fs110/en/>. Published August 2016. Accessed July 2018.

<sup>2</sup> Minnesota Department of Health. STD Surveillance Report Data Tables, Minnesota 2017. St. Paul, MN: Minnesota Department of Health; 2018. <http://www.health.state.mn.us/divs/idepc/dtopics/stds/stats/2017/tablestd.pdf>. Published April 24, 2018. Accessed July 2018.

<sup>3</sup> Minnesota Department of Health. Sexually Transmitted Disease (STD) Surveillance Report. <http://www.health.state.mn.us/divs/idepc/dtopics/stds/stats/2017/stdreport.pdf>. Accessed July 2018.

<sup>4</sup> Minnesota Department of Health. Minnesota Student Survey 2016. <http://www.health.state.mn.us/divs/chs/surveys/mss/index.html>. Accessed July 2018.

<sup>5</sup> Sexually Transmitted Diseases. Healthy People 2020. <https://www.healthypeople.gov/2020/topics-objectives/topic/sexually-transmitted-diseases/objectives>. Accessed July 2018.

# Sexually Transmitted Diseases and Infections

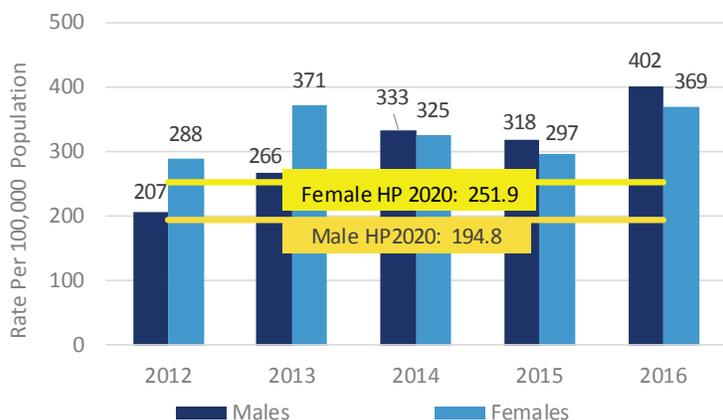
## RISK FACTORS

Risk factors for STDs include unprotected sex and lack of awareness regarding modes of transmission, such as through oral sex.<sup>6</sup> Some STDs can also be spread by non-sexual means through blood or blood products. Many STDs—including chlamydia, gonorrhea, hepatitis B, HIV and syphilis—can also be transmitted from mother to child during pregnancy and childbirth.<sup>7</sup>

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

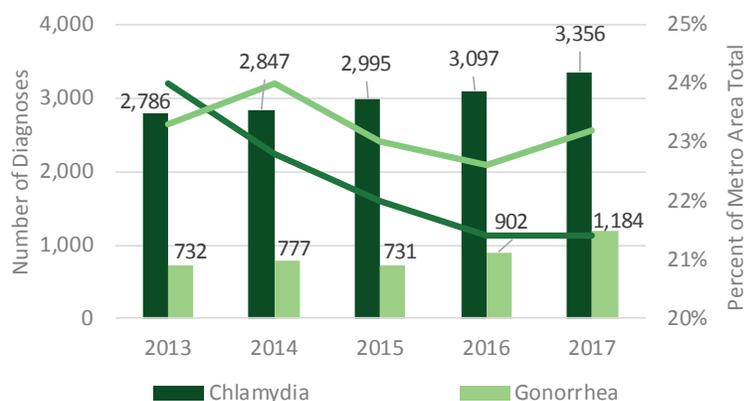
Saint Paul – Ramsey County Public Health provides screening, diagnosis and treatment of sexually transmitted infections (STIs) through Clinic 555 at the 555 Cedar St. location. Services are confidential and the cost is based on a sliding fee based on family size and income. Public Health staff also conduct outreach, screening, diagnosis and treatment in the community to increase accessibility of services. Additionally, Ramsey County provides funding to five Ramsey County community clinics to help offset the cost of services, including screening, diagnosis and treatment for STIs, provided to uninsured and underinsured clients. Saint Paul – Ramsey County Public Health also maintains a disease surveillance role, monitoring the prevalence of STDs/STIs in Ramsey County.

New Diagnoses of Gonorrhea, Ages 15 to 44, Ramsey County



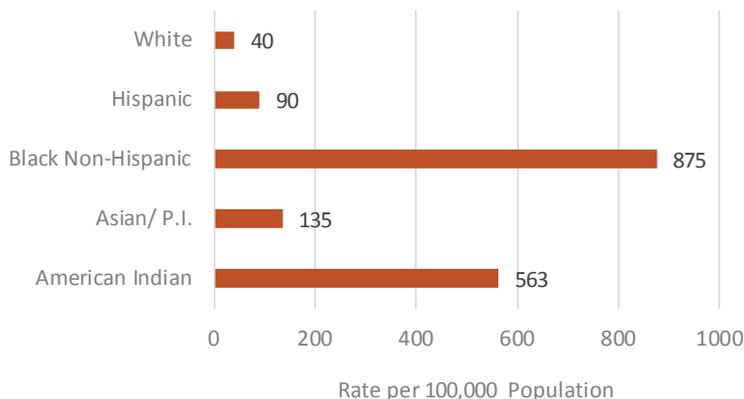
Source: Minnesota Department of Health.<sup>8</sup>

Chlamydia and Gonorrhea Diagnoses, Ramsey County



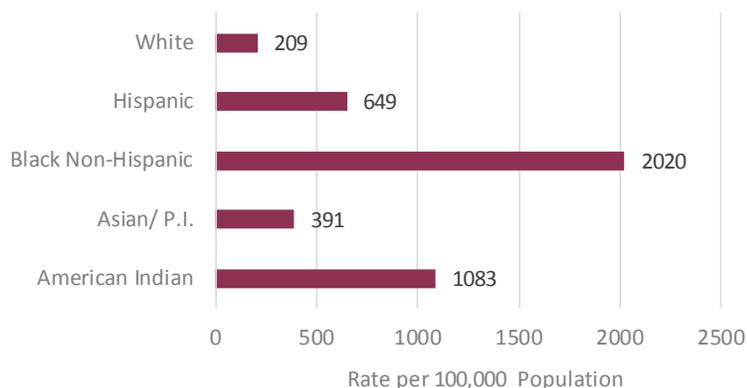
Source: Minnesota Department of Health.<sup>8</sup>

Gonorrhea Rates by Race/ Ethnicity, Minnesota, 2017



Source: Minnesota Department of Health.<sup>8</sup>

Chlamydia Rates by Race/ Ethnicity, Minnesota, 2017



Source: Minnesota Department of Health.<sup>8</sup>

<sup>6</sup> Sexually Transmitted Diseases (STDs). Centers for Disease Control and Prevention. <https://www.cdc.gov/std/healthcomm/stdfact-stdriskandoralsex.htm>. Updated January 4, 2017. Accessed July 2018.

<sup>7</sup> Sexually Transmitted Infections (STIs). World Health Organization. <http://www.who.int/mediacentre/factsheets/fs110/en/>. Published August 2016. Accessed July 2018.

<sup>8</sup> Source: Minnesota Department of Health. STD Surveillance Report Data Tables, Minnesota 2017. St. Paul, MN: Minnesota Department of Health; 2018. <http://www.health.state.mn.us/divs/idepc/dtopics/stds/stats/2017/tablesstd.pdf>. Accessed July 2018.

## DESCRIPTION

Pertussis, or whooping cough, is a disease that affects the lungs. Pertussis bacteria are spread from person to person through the air. A person with pertussis develops a severe cough that usually lasts four to six weeks or longer. Pertussis in infants is often severe, and they are more likely than older children or adults to develop complications. The disease can lead to bacterial pneumonia, and in rare circumstances, seizures, brain inflammation and even death.<sup>1</sup>

## HOW WE ARE DOING

The number of reported cases of pertussis in Minnesota increased by 150 between 2013 and 2016.<sup>2</sup> In 2016, there were 61 reported cases in Ramsey County, about double that of 2015. The number of pertussis diagnoses in 2016 in Ramsey County made up 6 percent of the state total, and 11.7 percent of the seven-county metro area total. As of Oct. 20, 2017, there have been 41 reported cases in 2017.<sup>3</sup> In 2016, the most common age group to be affected were those 19 years and older, followed by 13 to 18 years old. Overall, there was a decrease in diagnoses for all age groups between 2013 and 2017.<sup>4</sup> Ramsey County has met the Healthy People 2020 objective for infants under one year but did not achieve the 40 percent reduction in adolescent cases in 2016.

## BENCHMARK INDICATOR

Healthy People 2020:

- 1) Reduce cases of pertussis among children under 1 year of age  
U.S. Target: 10 percent reduction
- 2) Reduce cases of pertussis among adolescents aged 11 to 18 years  
U.S. Target: 40 percent reduction

## DISPARITIES

Teens and adults account for more than half of reported pertussis cases. In 2015 the most common age group for pertussis cases reported to the Minnesota Department of Health was among Minnesota teens 13 to 18 years old. Pertussis among school-aged children continues to increase.<sup>1</sup>

## RISK FACTORS

Anyone of any age can get pertussis. Individuals are at higher risk if not fully vaccinated with DTap or Tdap (age determines which vaccine individuals receive).

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

The Saint Paul- Ramsey County Public Health immunizations clinic offers low cost vaccines for infants, children and adults who are uninsured or whose insurance does not cover shots. The clinic is open Monday through Friday and is located along the Green Line in downtown St. Paul.

The rate of pertussis amongst 13 to 18 year olds could be reduced if adolescents receive the Tdap booster that is recommended at the age of 11 or 12 in Minnesota's Immunization Requirements. Ramsey County Child and Teen Checkups Program does outreach and education to adolescents receiving Medical Assistance about the importance of routine checkups and immunizations until the age of 21. When an individual is diagnosed with (continued on back)

## Information to note

- As of Oct. 20, 2017, there have been 41 reported cases of pertussis in Ramsey County during 2017.
- In 2015, the most common age group for reported pertussis cases in Minnesota was 13 to 18 years old.

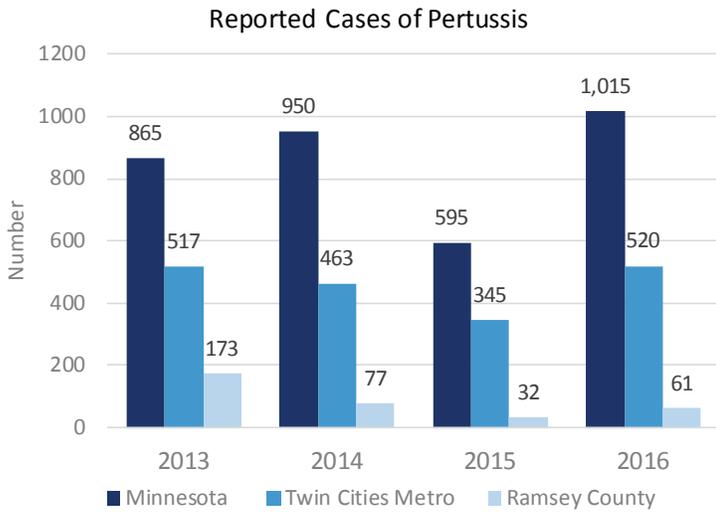
<sup>1</sup>Pertussis (Whooping Cough). Minnesota Department of Health. <http://www.health.state.mn.us/divs/idepc/diseases/pertussis/pfacts.html>. Accessed October 3, 2017.

<sup>2</sup>Infectious Disease Surveillance. Minnesota Department of Health. <http://www.health.state.mn.us/macros/topics/stats.html>. Accessed September 14, 2017.

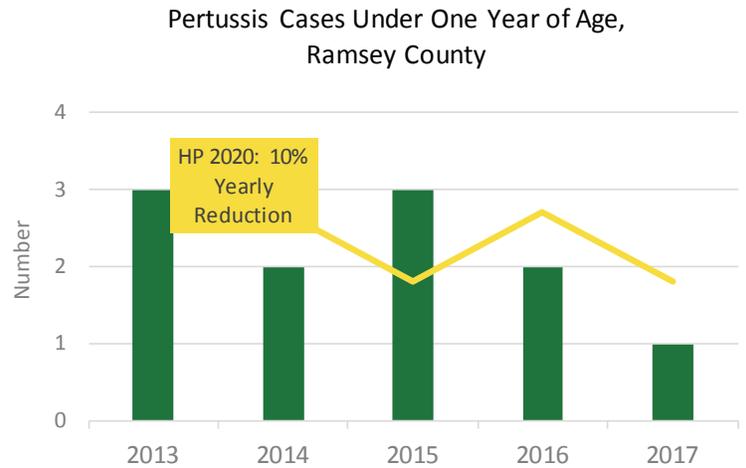
<sup>3</sup>Pertussis Disease Statistics, 2017. Minnesota Department of Health. <http://www.health.state.mn.us/divs/idepc/diseases/pertussis/stats/stats17.html#county>. Accessed October 3, 2017.

<sup>4</sup>Saint Paul-Ramsey County Public Health, Health Protection Division.

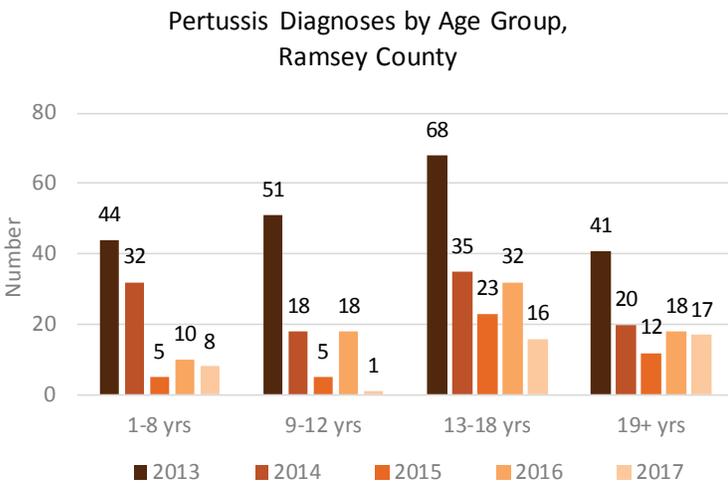
pertussis, epidemiologists at Ramsey County conduct case and contact investigations. Epidemiologists refer contacts to primary care to receive post-exposure prophylaxis and encourage routine immunizations.



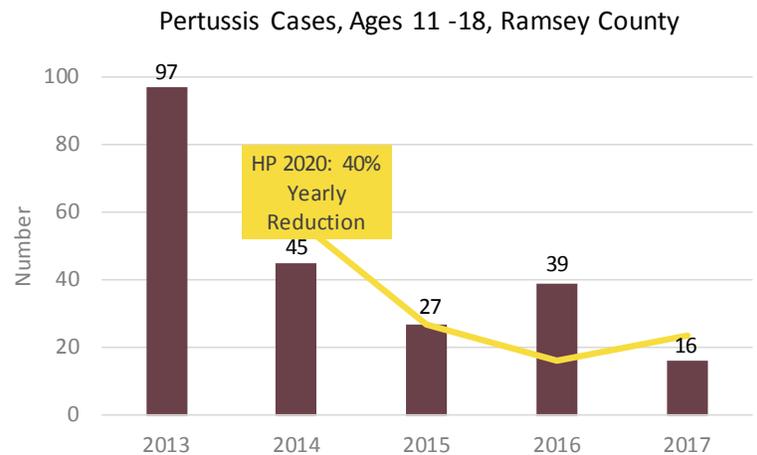
Source: Minnesota Department of Health, Infectious Disease Surveillance.<sup>5</sup>



Source: Saint Paul - Ramsey County Public Health.



Source: Saint Paul-Ramsey County Public Health.



Source: Saint Paul-Ramsey County Public Health.

<sup>5</sup> Minnesota Department of Health Infectious Disease Surveillance. Minnesota Department of Health Web site. <http://www.health.state.mn.us/macros/topics/stats.html>. Accessed September 14, 2017.

# Tick Transmitted Disease

## DESCRIPTION

Most tick bites do not result in disease, but it is a good idea to recognize and watch for the early symptoms of some of the more commonly encountered tick-borne diseases. Lyme disease and human anaplasmosis (HA) are the two most common tick-borne diseases in Minnesota. Other tick-borne diseases that occur but are less common include: babesiosis, ehrlichiosis, Rocky Mountain Spotted Fever, Powassan virus, tularemia and southern tick-associated rash illness. Incidence of these tick-borne diseases may increase with climate change.<sup>1</sup>

## HOW ARE WE DOING

Lyme disease is the most common tick-borne disease in Minnesota with a rate of 23.6 cases per 100,000 population in 2016, which is based on 1,304 confirmed cases. Minnesota has the 10th highest rate for Lyme disease in the U.S.. Confirmed cases are based on clinical testing results, so numbers likely underrepresent the actual reality. While yearly numbers fluctuate, Lyme disease cases have been increasing since the 1990s. In Ramsey County in 2016, there were 84 confirmed cases of Lyme disease and 39 of human anaplasmosis. This was 6.4 percent of the state total for Lyme disease, and 5.3 percent for HA. The third most common tick transmitted disease was babesiosis. In 2016, there were five cases in Ramsey, 13 in the metro area, and 50 statewide.<sup>2</sup>

Tick transmitted disease rates were recorded from 2007 to 2015 and translated into risk levels by county in Minnesota; of the seven-county metro area, Ramsey County is one of five counties with moderate risk of tick-borne illness. Anoka County and Washington County rank "high risk."<sup>3</sup>

## DISPARITIES

For the tick transmitted disease anaplasmosis, 385 (63 percent) cases reported in 2015 were identified in men. The median age of cases was 58 years (range, 10 to 94 years), 14 years older than the median age of Lyme disease cases.<sup>1</sup>

## RISK FACTORS

Campers, hikers, hunters, farmers and people in outdoor occupations may be at higher risk in the counties known to have blacklegged ticks (deer ticks), including Ramsey County. Some people have been exposed to blacklegged ticks in their yard, especially in yards with a lot of brush and leaf litter or adjacent to woods.<sup>4</sup>

## WHAT RAMSEY COUNTY IS DOING

Ramsey County Parks and Recreation hands out tick information cards to help residents identify tick species, tips for preventing tick bites and how to remove a tick if one does bite. Off leash dog areas in local parks have tick warning and information signs.

Public Health works with partners across Ramsey County to address residents' concerns around tick-borne illness. Staff epidemiologists help community members identify signs and symptoms of Lyme disease and connect them to primary care. Parks and Recreation staff visit parks and other popular community venues to share information about tick-borne illness (in 2016, brochures, tick cards, and posters were shared with 292 venues). In addition, the tick lab at the Metropolitan Mosquito Control District offers free identification of ticks to locals as part of their ongoing Lyme disease surveillance work.

## Information to note

- The rate of Lyme disease in Minnesota has fluctuated over the years, but is increasing. It is the most common tick-borne disease in Minnesota with a rate of 23.6 cases per 100,000 population in 2016.

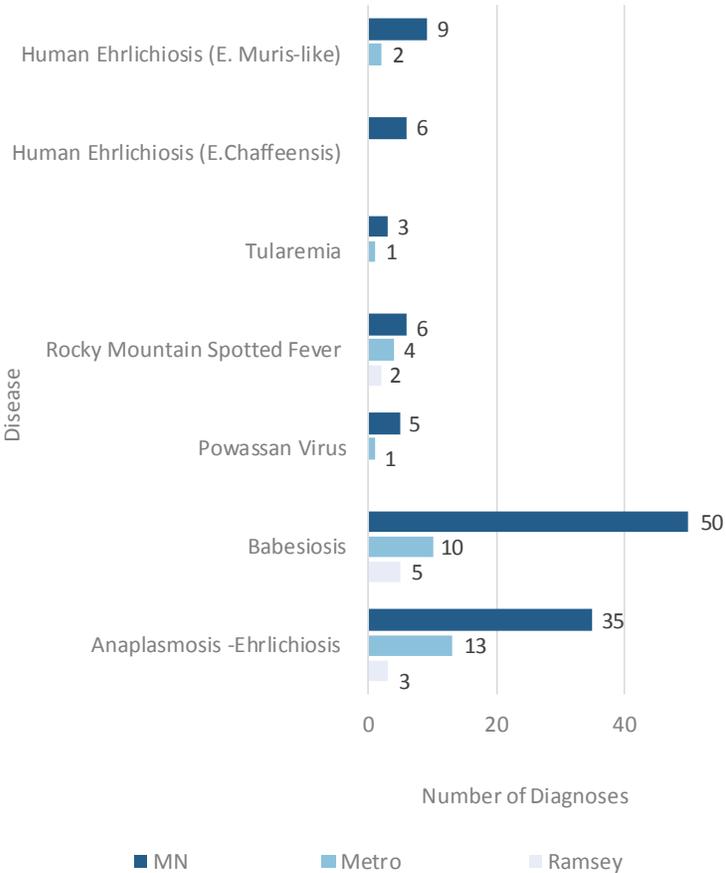
<sup>1</sup>Tickborne Diseases. Minnesota Department of Health Web site. <http://www.health.state.mn.us/divs/idepc/dtopics/tickborne/index.html>. Accessed September 14, 2017.

<sup>2</sup>Minnesota Department of Health Infectious Disease Surveillance. Minnesota Department of Health Web site. <http://www.health.state.mn.us/macros/topics/stats.html>. Accessed September 14, 2017.

<sup>3</sup>Tickborne Disease Risk in Minnesota. Minnesota Department of Health Web site. <http://www.health.state.mn.us/divs/idepc/diseases/lyme/highrisk.pdf>. Accessed November 4, 2017.

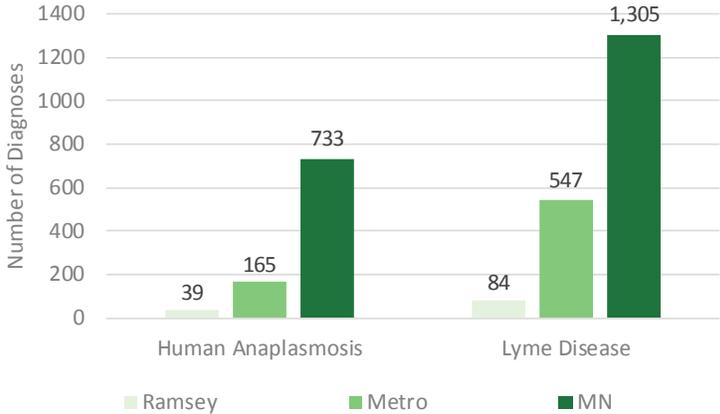
<sup>4</sup>Preventing Tickborne Disease. Minnesota Department of Health Web site. <http://www.health.state.mn.us/divs/idepc/dtopics/tickborne/prevention.html>. Accessed September 14, 2017.

Select Tick Transmitted Diseases, Confirmed Cases, 2016



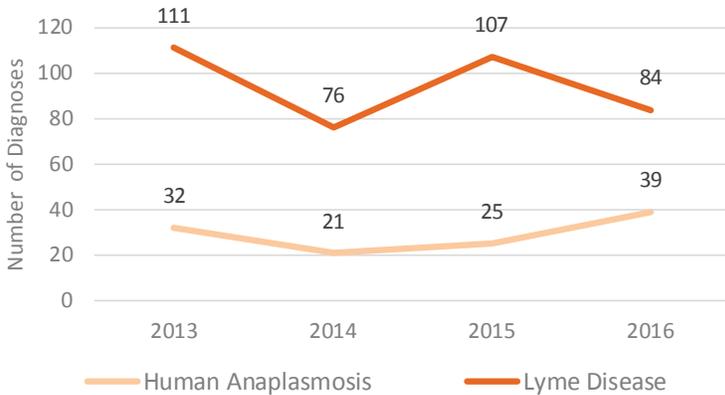
Source: Minnesota Department of Education Web site.<sup>5</sup>

Most Common Tick Transmitted Diseases, Confirmed Cases, 2016



Source: Minnesota Department of Health Web site.<sup>5</sup>

Top Tick Transmitted Diseases, Confirmed Cases, Ramsey County



Source: Minnesota Department of Health Web site.<sup>5</sup>

<sup>5</sup>Source: Minnesota Department of Health Infectious Disease Surveillance. Minnesota Department of Health Web site. <http://www.health.state.mn.us/macros/topics/stats.html>. Accessed September 14, 2017.

## DESCRIPTION

Tuberculosis (TB) is a serious infectious disease caused by a bacterium called *Mycobacterium tuberculosis*. TB is transmitted through the air, but extended close contact with someone with infectious TB is typically required for it to spread. Not everyone infected with the TB bacterium becomes sick. As a result, two TB-related conditions exist: latent TB infection (germs are dormant in the body and do not spread to others) and active TB disease (the infected person feels sick and can spread germs to others). Active TB most often affects the lungs, but can involve any part of the body. In most cases TB is curable, however it can be fatal without proper treatment. Sometimes TB becomes resistant to drugs used to treat it. Multidrug-resistant TB (MDR TB) is resistant to at least two of the most potent drugs used for treatment. This contrasts with “pan-sensitive” TB which is susceptible to all first-line drugs against TB.<sup>1</sup>

## HOW WE ARE DOING

In 2017, there were 38 cases of tuberculosis reported in Ramsey County. This was 29.2 percent of the Metro area total, and 21.3 percent of the Minnesota total. This is an increase of 9 percent for Ramsey County from the previous 5-year average of 35 cases.<sup>2</sup> In Ramsey County, most active TB cases occur in residents born in countries with high TB rates (90 percent of cases in 2017). In the last five years, people with TB in Ramsey County were born in 23 different countries, most from South/Southeast Asia (48 percent) or Africa (41 percent). Ramsey County residents born in the U.S. who have TB often report other risk factors including immune-suppression due to therapies or illnesses, substance abuse, homelessness, or lengthy stays in correctional facilities, nursing homes or other congregate settings.

Beginning in late 2016, an outbreak of MDR TB was identified in Ramsey County. Between 2016 and 2018, Ramsey County identified 18 cases of MDR TB (this compares to seven cases of MDR TB in the entire state from 2010 to 2015). In 2017 there were 7.5 confirmed cases of TB per 100,000 population. Foreign born residents experienced a rate of 44.5 per 100,000 population. Ramsey County does not meet the Healthy People targets related to TB.

## BENCHMARK INDICATOR

Healthy People 2020: Reduce the tuberculosis (TB) case rate for foreign-born persons living in the U.S.

U.S. Target: 14 per 100,000 population

Healthy People 2020: Reduce tuberculosis

U.S. Target: 1.0 new case per 100,000 population<sup>3</sup>

## DISPARITIES

In 2016, foreign born residents in Ramsey County experienced a rate of 44.5 new TB cases per 100,000 population, compared to a rate of 0.4 among U.S. born residents. The MDR TB outbreak in Ramsey County is concentrated in the Hmong community and is specifically affecting the elderly.

## RISK FACTORS

Generally, persons at high risk for developing TB disease fall into two categories: persons who have been recently infected with TB bacteria; and persons with medical conditions that weaken the immune system (such as HIV, diabetes, cancer, kidney disease, children less than 5 years of age).<sup>1</sup>

(continued on back)

## Information to note

- In 2017, there were 38 cases of tuberculosis in Ramsey County, which was 21.3% of all Minnesota cases.
- There is an ongoing outbreak of multidrug-resistant tuberculosis in Ramsey County primarily affecting the Hmong community.

<sup>1</sup>Tuberculosis (TB). Centers for Disease Control and Prevention. <https://www.cdc.gov/tb/default.htm> Accessed April 2018.

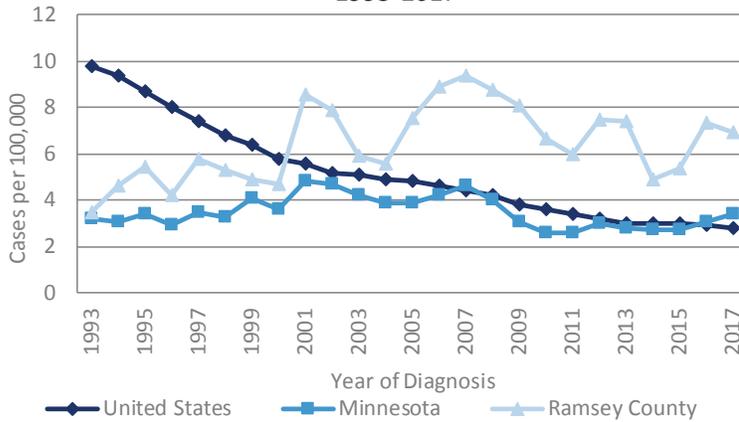
<sup>2</sup>Minnesota Department of Health Infectious Disease Surveillance. Minnesota Department of Health. <http://www.health.state.mn.us/macros/topics/stats.html>. Accessed April 2018.

<sup>3</sup>HealthyPeople 2020. <https://www.healthypeople.gov/2020/topics-objectives>. Accessed April 2018.

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

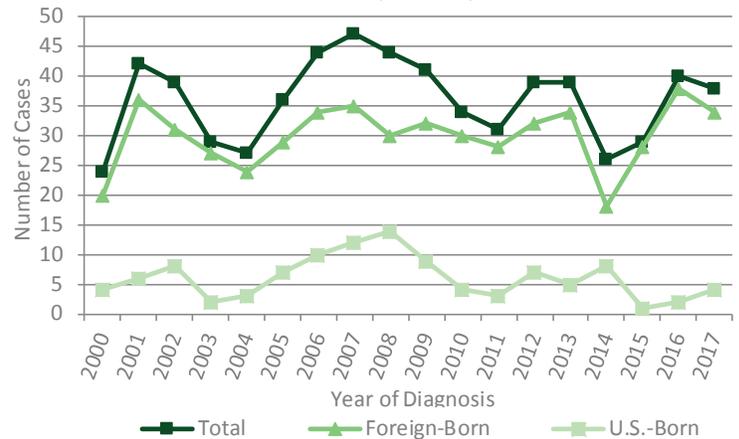
Between 2016 and 2018 Saint Paul- Ramsey County Public Health created six new positions and reallocated funding for sustained community engagement and provider education to address TB prevention and control. Although the MDR TB outbreak occurred in Ramsey County, all local health departments are mandated by law to assure follow-up for active and latent TB cases in their jurisdiction. There is limited outside funding for these prevention and control activities, leaving most counties with smaller budgets to tap during outbreaks. The burden of TB is well-known, but with a sustained investment in this area Ramsey County hopes to prevent future outbreaks.

Tuberculosis Incidence Rates, United States, Minnesota, and Ramsey County 1993-2017



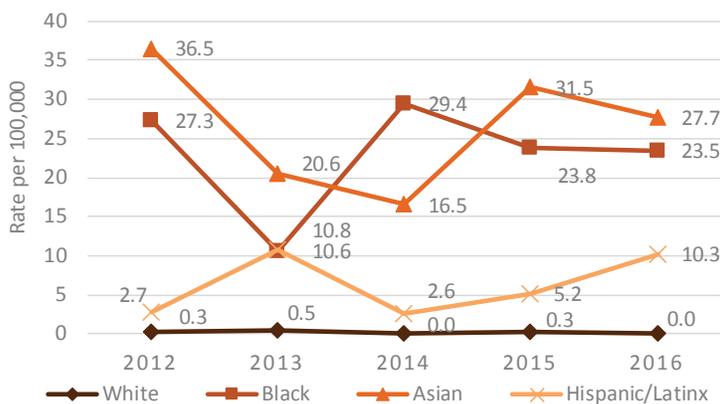
Source: Minnesota Department of Health and Centers for Disease Control.<sup>4</sup>

Tuberculosis Cases by Place of Birth, Ramsey County



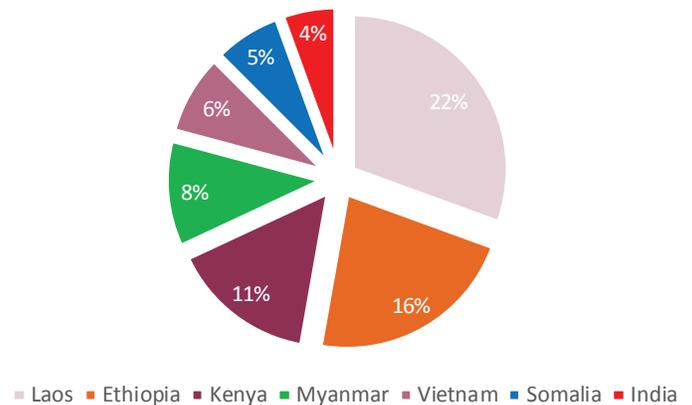
Source: Saint Paul - Ramsey County Public Health.

Tuberculosis Incidence Rates by Race/Ethnicity, Ramsey County, 2012-2016



Source: Saint Paul - Ramsey County Public Health.

Non-U.S. Born Tuberculosis Cases by Country of Birth, Ramsey County, 2013-2017



Source: Saint Paul - Ramsey County Public Health.

<sup>4</sup> Source: rates for MN and US from <http://www.health.state.mn.us/divs/idepc/diseases/tb/stats/index.html> and <https://www.cdc.gov/tb/statistics/tbcases.htm> and [https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS\\_05\\_EST\\_S0101&prodType=table](https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_05_EST_S0101&prodType=table)

## DESCRIPTION

While it is important for people of all ages to receive recommended vaccines, it is especially important for children, because diseases that can be prevented by vaccines are often more serious in children. Vaccinating children not only protects a child from disease, but it also protects the community by reducing the spread of a disease outbreak. When all vaccine-eligible children are fully immunized, it helps protect those who can't be vaccinated or are too young to receive vaccine.<sup>1</sup>

## HOW WE ARE DOING

In 2016 in Minnesota, 60.1 percent of children ages 24-35 months were up-to-date on recommended vaccines, which compares to Ramsey County's rate of 54.2 percent. These rates do not meet the Healthy People target of 80 percent. When looking at specific vaccine types, the Varicella (chickenpox) vaccination has the highest percentage (80 percent) of children who received it on time, while the Hepatitis A vaccination was the lowest at 35 percent. The most common reasons for a child being counted as "not up to date" on vaccinations were: the child received all vaccinations but not by 24 months (10 percent), or the child was still due for immunizations (34 percent).<sup>2</sup> Compared to other metro counties, Ramsey's percentage for children getting the full-series of immunizations on the recommended schedule was the third lowest in the seven-county metro area.<sup>3</sup>

## BENCHMARK INDICATOR

Healthy People 2020<sup>4</sup>: Increase the percentage of children aged 19 to 35 months who receive the recommended doses of DTaP, polio, MMR, Hib, hepatitis B, varicella and pneumococcal conjugate vaccine (PCV).

U.S. Target: 80 Percent of children aged 19 to 35 months.

## DISPARITIES

Minnesota children with at least one foreign-born parent were less likely to be up to date on recommended immunizations at ages 2, 6, 18, and 36 months than were children with two U.S.-born parents. Vaccination coverage at age 36 months varied by mother's region of origin, ranging from 77.5 percent among children born to mothers from Central and South America and the Caribbean to 44.2 percent among children born to mothers from Somalia.<sup>5</sup>

## RISK FACTORS

In very special situations, children shouldn't be vaccinated. For example, some vaccines shouldn't be given to children who have certain types of cancer or certain diseases, or who are taking drugs that lower the body's ability to resist infection.<sup>6</sup>

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

Saint Paul – Ramsey County Public Health encourages childhood and adult immunizations as the most effective means to decrease the prevalence and spread of vaccine-preventable diseases. Public Health offers appointment based immunization clinics at 555 Cedar Street on three days each week. While people are encouraged to obtain their immunizations at their medical home, public health immunizations are available for people who do not have

## Information to note

- Ramsey County children are less likely than other Minnesota children to be up to date on their immunizations.
- Minnesota children with at least one foreign-born parent were less likely to be up to date on recommended immunizations at ages 2, 6, 18, and 36 months than were children with two U.S.-born parents.

<sup>1</sup> Immunizations. Minnesota Department of Health. <https://data.web.health.state.mn.us/immunization>. Accessed July 2018.

<sup>2</sup> ImmuLink. Hennepin County Public Health. <http://www.hennepin.us/residents/health-medical/clinics-services#get-immunizations>. Accessed July 2018.

<sup>3</sup> Childhood immunizations (2017). Minnesota Department of Health. <https://apps.health.state.mn.us/mndata/webmap/immunizations.html>. Accessed July 2018.

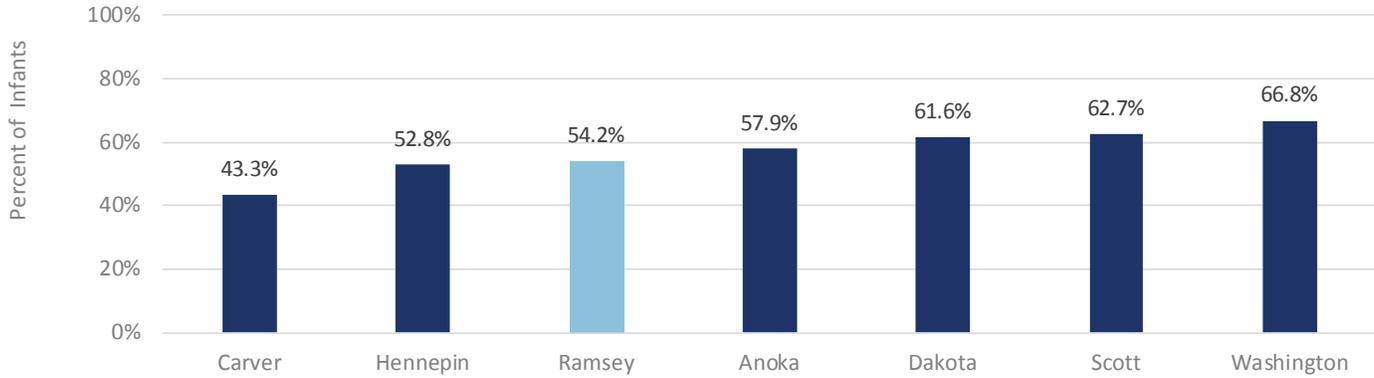
<sup>4</sup> Immunization and Infectious Diseases. Healthy People 2020. <https://www.healthypeople.gov/2020/topics-objectives/topic/immunization-and-infectious-diseases/objectives>. Accessed July 2018.

<sup>5</sup> Leads M, Halstead Muscoplat M. Timeliness of receipt of early childhood vaccinations among children of immigrants — Minnesota, 2016. *MMWR Morb Mortal Wkly Rep* 2017;66:1125–1129. [https://www.cdc.gov/mmwr/volumes/66/wr/mm6642a1.htm?s\\_cid=mm6642a1\\_w](https://www.cdc.gov/mmwr/volumes/66/wr/mm6642a1.htm?s_cid=mm6642a1_w). Published July 2018. Accessed July 2018.

<sup>6</sup> Childhood vaccines: what they are and why your child needs them. Familydoctor.Org. <https://familydoctor.org/childhood-vaccines-what-they-are-and-why-your-child-needs-them/>. Accessed July 2018.

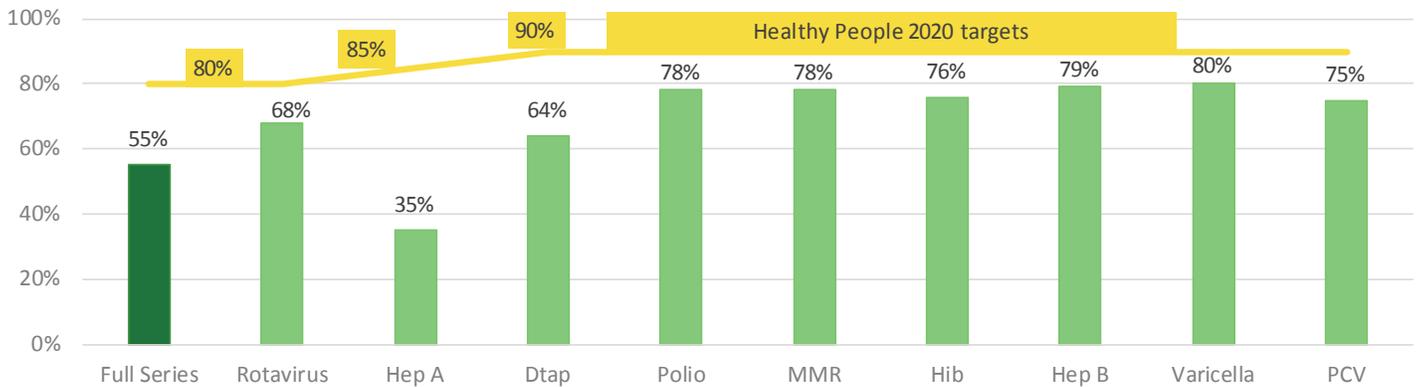
a medical home or are unable to access services in a timely manner. Additionally, Ramsey County provides funding to five Ramsey County community clinics to help off-set the cost of services, including immunizations, provided to uninsured and underinsured clients. Saint Paul – Ramsey County Public Health maintains a disease surveillance role, monitoring the prevalence of vaccine-preventable disease in Ramsey County.

Up-to-Date on Full-Series Vaccinations,  
Infants Aged 24-35 Months, Metro Counties, 2016



Source: Childhood Immunizations. Minnesota Department of Public Health.<sup>7</sup>

Up-to-Date on Immunizations, Children at 2 Years, Ramsey County, 2017



Source: ImmuLink. Hennepin County Public Health.<sup>8</sup>

<sup>7</sup> Childhood Immunizations. Minnesota Department of Public Health Web site. <https://apps.health.state.mn.us/mndata/webmap/immunizations.html>. Accessed July 2018.

<sup>8</sup> ImmuLink. Hennepin County Public Health. <http://www.hennepin.us/residents/health-medical/clinics-services#get-immunizations>. Accessed July 2018.

## DESCRIPTION

Foodborne illness is caused by eating foods or beverages contaminated by disease-causing microbes or pathogens. There are many types of foodborne illness. Most are infections caused by a variety of bacteria, viruses and parasites. Disease can be caused by poisonings from harmful toxins or chemicals in contaminated food. Illness can also be caused by: consuming recreational or drinking water, having contact with animals or their environment, or be spread person-to-person.<sup>1</sup>

## HOW ARE WE DOING

In 2016 in Ramsey County, there were 123 infections of Giardia, 83 of Salmonella, 66 of Campylobacter and 64 of Shigella. These microbes were responsible for the majority of foodborne illness in the county. Between 2013 and 2016 Shigella-related outbreaks increased from 16 diagnoses, to 64. Ramsey County's campylobacteriosis cases made up 14.2 percent of the metro area total and 6.3 percent of the Minnesota total. For salmonellosis, Ramsey County cases made up 17.4 percent of the metro total, and 9.6 percent of the Minnesota total.<sup>2</sup>

## BENCHMARK INDICATOR

Healthy People 2020 Benchmark: Reduce infections caused by key pathogens transmitted through food.

U.S. Targets:

- Salmonellosis: 11.4 per 100,000 population
- Campylobacteriosis: 8.5 per 100,000 population
- Shigellosis: 0.6 per 100,000 population

## DISPARITIES

Analyses of reported cases have found increased rates of some foodborne illnesses among minority racial/ethnic populations. In some cases (listeriosis, yersiniosis) increased rates are due to unique food consumption patterns, in other cases (salmonellosis, shigellosis, campylobacteriosis) it is unclear why this health disparity exists.<sup>3</sup>

## RISK FACTORS

Foods commonly associated with foodborne illness include:<sup>1</sup>

- Raw foods with animal origins such as: raw meat or poultry, raw eggs, raw shellfish and unpasteurized milk.
- Fruits and vegetables grown with manure or unclean water.
- Raw spouts because their growing environments are often ideal for microbes.
- Unpasteurized fruit juices and cider.
- Improperly prepared food and food touched by someone who is/was recently ill can also spread disease.

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

text

## Information to note

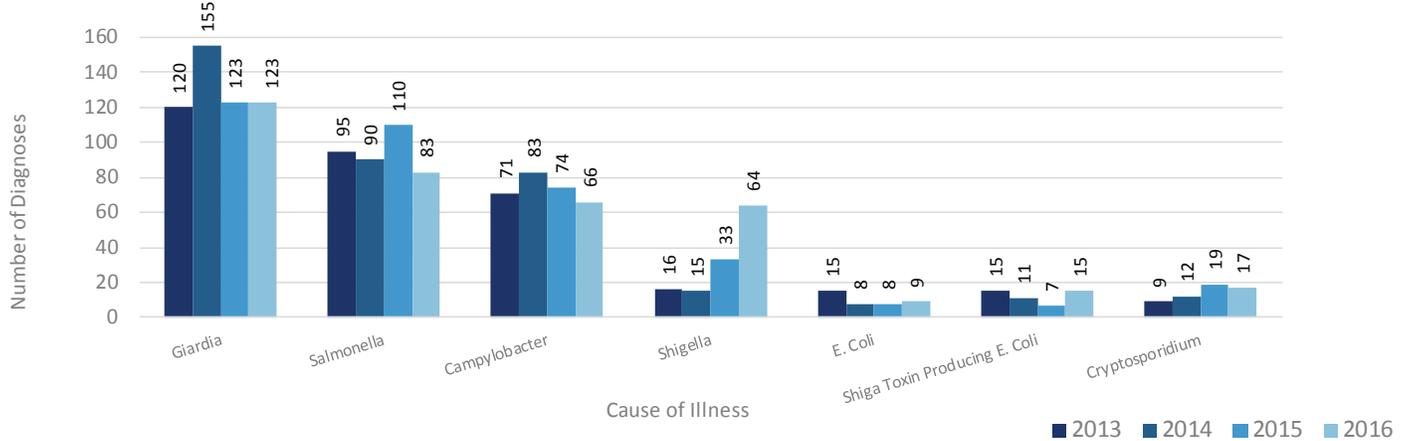
- Giardia was the top cause of foodborne illness in Ramsey County in 2016.
- The foodborne illness with the most growth between 2013 and 2016 in Ramsey County was shigellosis; going from 16 in 2013, to 64 diagnoses in 2016

<sup>1</sup> Causes and Symptoms of Foodborne Illness. Minnesota Department of Health Web site. <http://www.health.state.mn.us/divs/idepc/dtopics/foodborne/basics.html#foods>. Accessed October 12, 2017.

<sup>2</sup> Minnesota Department of Health Infectious Disease Surveillance. Minnesota Department of Health Web site. <http://www.health.state.mn.us/divs/istm/medss/>. Accessed September 14, 2017.

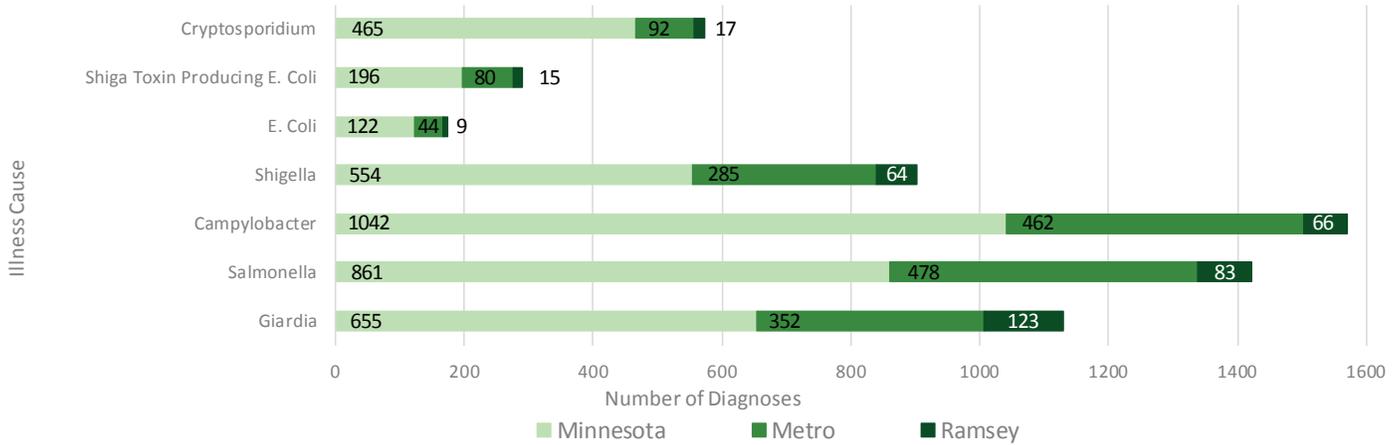
<sup>3</sup> Foodborne illness incidence rates and food safety risks for populations of low socioeconomic status and minority race/ethnicity: a review of the literature. PubMed. <https://www.ncbi.nlm.nih.gov/pubmed/23955239>. Accessed October 30, 2017.

Diagnosed Foodborne Illness, Ramsey County, 2013-2016



Source: Minnesota Department of Health Infectious Disease Surveillance. Minnesota Department of Health Web site.<sup>4</sup>

Diagnosed Foodborne Illnesses, 2016



Source: Minnesota Department of Health Infectious Disease Surveillance. Minnesota Department of Health Web site.<sup>4</sup>

<sup>4</sup> Minnesota Department of Health Infectious Disease Surveillance. Minnesota Department of Health Web site. <http://www.health.state.mn.us/divs/istm/medss/>. Accessed September 14, 2017.

## DESCRIPTION

Antibiotics are powerful tools for fighting bacterial illnesses, such as strep throat, but they do not work for viral illnesses like the common cold or flu.<sup>1</sup> Antibiotic resistance is a critical public health issue. Since the 1940s, antibiotics have greatly reduced illness and death from infectious diseases. However, these drugs have been used so widely and for so long that the infectious organisms the antibiotics are designed to kill have adapted to them, making the drugs less effective. Antibiotic resistance is an ever-growing problem in Minnesota, as it is in the rest of the world. Inappropriate use of antibiotics and environmental changes multiply the potential for worldwide epidemics of all types of infectious diseases.<sup>2</sup>

## HOW WE ARE DOING

In 2013, the Centers for Disease Control and Prevention (CDC) published a report outlining the top 18 drug-resistant threats to the U.S. These threats were categorized as: 1) urgent, 2) serious, or 3) concerning. In general, threats assigned to the urgent and serious categories require more monitoring and prevention activities, whereas threats in the concerning category require less.<sup>2</sup> The following describes a selection of drug-resistant threats in Minnesota and Ramsey County.

Carbapenem-resistant Enterobacteriaceae (CRE) and quinolone-resistant Neisseria Gonorrhoeae (QRNG) are both in the “urgent” category. CRE cause a variety of infections including pneumonia, bloodstream, wound and urinary tract infections. CRE have become resistant to all or nearly all the antibiotics we have today. Almost half of hospital patients who get bloodstream infections from CRE bacteria die.<sup>2</sup> In 2016, 19 CRE isolates were identified in Minnesota residents; 47 percent (or nine patients) were residents of Ramsey or Hennepin County.<sup>3</sup>

The emergence of QRNG in recent years has become a particular concern.<sup>4</sup> Due to the high prevalence of QRNG in Minnesota, quinolones are no longer recommended for the treatment of gonococcal infections. Gonorrhea rates are highest in the cities of Minneapolis and Saint Paul, with the incidence in Saint Paul at 271 per 100,000 – 3.9 times higher than the rate in the suburban metropolitan area, and 6.9 times higher than the rate in Greater Minnesota.<sup>5</sup>

Two “serious” threats include Methicillin-resistant Staphylococcus aureus (MRSA) and Streptococcus pneumoniae Invasive Disease. An increasing number of patients are being seen with skin infections caused by Staphylococcus aureus bacteria that are resistant to many antibiotics. Rates of MRSA have dropped in Ramsey County since 2007 when the rate was 20.9 per 100,000 people, with a rate of 11.6 in 2016. Despite this general decline, there were 21 deaths from MRSA in 2016 in Hennepin and Ramsey counties; 12 of which were in people 70 years of age or older.<sup>6</sup>

(continued on next page)

## Information to note

- Antibiotics prescribed for acute respiratory infections in kids younger than 15 years of age account for 58% of all antibiotics prescribed.
- The rate of MRSA in Ramsey and Hennepin County has dropped from a high of 20.9 per 100,000 in 2007 to 11.6 in 2016.

<sup>1</sup> About Antimicrobial Use and Resistance. Minnesota Department of Health. <http://www.health.state.mn.us/divs/idepc/dtopics/antibioticresistance/basics/basics.html>. Accessed March 7, 2018.

<sup>2</sup> Antibiotic / Antimicrobial Resistance. Centers for Disease Control and Prevention. <https://www.cdc.gov/drugresistance/>. Accessed March 5, 2018.

<sup>3</sup> Carbapenem-resistant Enterobacteriaceae, 2016. Minnesota Department of Health. <http://www.health.state.mn.us/divs/idepc/newsletters/dcn/sum16/cre.html>. Accessed February 27, 2018.

<sup>4</sup> Annual Summary of Communicable Diseases Reported to the Minnesota Department of Health, 2016. Minnesota Department of Health. <http://www.health.state.mn.us/divs/idepc/newsletters/dcn/sum16/2016dcn.pdf>. Accessed February 27, 2018.

<sup>5</sup> Sexually Transmitted Diseases, 2016. Minnesota Department of Health. <http://www.health.state.mn.us/divs/idepc/newsletters/dcn/sum16/std.html#gonorrhea>. Accessed August 6, 2018.

<sup>6</sup> Invasive Bacterial Disease Surveillance Report, 2016. Minnesota Department of Health. <http://www.health.state.mn.us/divs/idepc/dtopics/invbacterial/invbacrpt16.pdf>. Accessed February 7, 2018.

Pneumococcal disease is an infection caused by a type of bacteria called *Streptococcus pneumoniae*. It can cause pneumonia, bloodstream infections, and meningitis. In 2016, 485 (8.8 per 100,000) cases of invasive pneumococcal disease were reported across Minnesota. Pneumonia occurred most frequently (48% of infections), followed by bacteremia without another focus of infection (30%), septic shock (9%), and meningitis (6%). Forty-seven (10%) individuals died.<sup>7</sup>

## DISPARITIES

Antibiotics prescribed for acute respiratory infections in kids younger than 15 years of age account for 58% of all antibiotics prescribed, yet most of these acute respiratory infections do not require antibiotic treatment.<sup>1</sup>

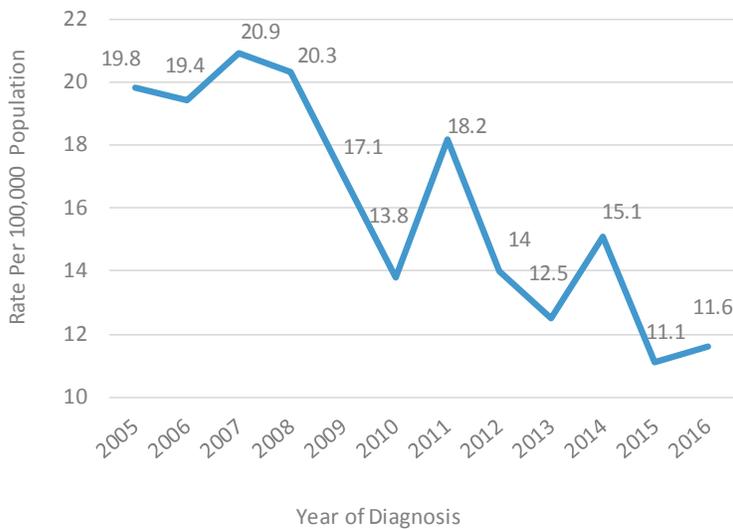
## RISK FACTORS

Many infections are acquired through exposure at hospitals and healthcare facilities. Bacteria can be spread from patient to patient on unclean hands or through unclean equipment.<sup>8</sup>

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

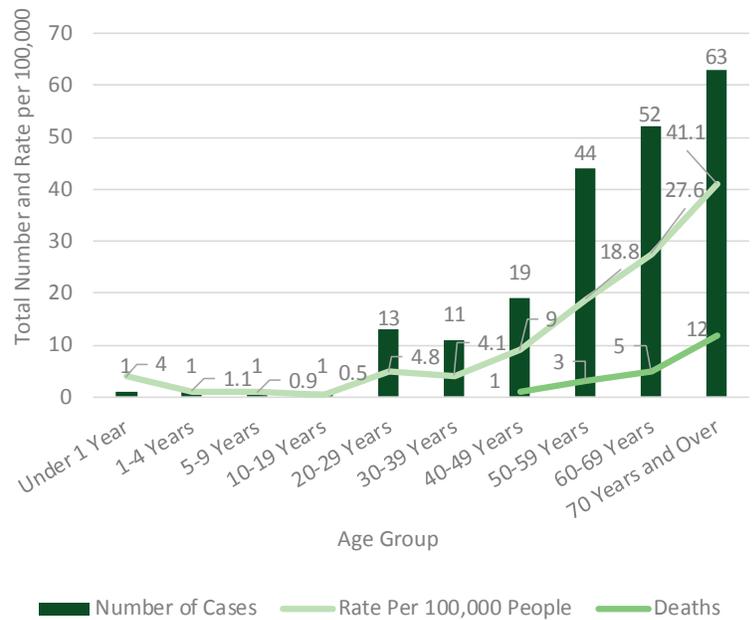
Surveillance of antibiotic-resistant infections is conducted by the Minnesota Department of Health (MDH), not counties. This surveillance facilitates the timely identification of people in need of immediate treatment. In 2015, MDH partnered with the Minnesota Department of Agriculture (MDA), Board of Animal Health (BAH), Minnesota Pollution Control Agency (MPCA), and partners in industry, academia, and professional associations and boards to establish a steering committee focused on promoting judicious antibiotic use in Minnesota.

**Rate of Invasive MRSA Disease, Ramsey and Hennepin Counties 2005 - 2016**



Source: Minnesota Department of Health.<sup>9</sup>

**Invasive MRSA Disease by Age Group Ramsey and Hennepin Counties, 2016**



Source: Minnesota Department of Health.<sup>9</sup>

<sup>7</sup> *Streptococcus pneumoniae* Invasive Disease, 2016. Minnesota Department of Health. <http://www.health.state.mn.us/divs/idepc/newsletters/dcn/sum16/spneumo.html>. Accessed February 27, 2018.

<sup>8</sup> Infections Acquired in the Hospital. Minnesota Hospital Quality Report. <http://www.mnhospitalquality.org/#/consumer/hospitals/infographic/15>. Accessed February 7, 2018.

<sup>9</sup> Source: Invasive Bacterial Disease Surveillance Report, 2016. Minnesota Department of Health Web site. <http://www.health.state.mn.us/divs/idepc/dtopics/invbacterial/invbacrpt15.pdf>. Accessed November 8, 2017.

## DESCRIPTION

Tobacco use is the leading preventable cause of death in the U.S. Nearly one in five deaths is related to tobacco use. Smoking harms nearly every organ in the body and contributes to many diseases and conditions, including heart disease, stroke, cancer, emphysema, bronchitis, type 2 diabetes, rheumatoid arthritis, bone health, and pregnancy risks such as preterm delivery, low birth weight and SIDS.<sup>1</sup> Each year, tobacco causes more Minnesotan deaths than alcohol, homicides, car accidents, AIDS, illegal drugs and suicide combined. Tobacco contributes to over 25,000 Minnesotan deaths every year, and causes over \$3.2 billion in annual medical costs. For Ramsey County that means about 2,108 tobacco related deaths per year, and medical costs of \$262,697,100.<sup>2</sup>

## HOW WE ARE DOING

Research from 2014 shows that the adult smoking rate among Minnesotans has significantly decreased since 2010 to an all-time low of 14.4 percent. In 2014 in Ramsey County, 9.2 percent of adults reported smoking, which meets the Healthy People goal.<sup>3</sup> Among Ramsey County 9th graders, smoking fell from 7.5 percent in 2013 to 2.8 percent in 2016. Echoing a national trend, e-cigarettes are on the rise with 7.6 percent of Ramsey County 9th graders reporting use of e-cigarettes. Considering all forms of tobacco, 9.5 percent of 9th graders report using tobacco in the last 30 days, which meets the Healthy People goal.<sup>4</sup>

## BENCHMARK INDICATOR

Healthy People 2020:

1) Reduce cigarette smoking by adults

U.S. Target: 12 percent

2) Reduce tobacco use by adolescents

U.S. Target: 21 percent<sup>5</sup>

## DISPARITIES

There are disparities related to race, education, income and other factors. Among Minnesota adults in 2015, American Indian residents had the highest rate at 37.2 percent, followed by multiracial, black, Hispanic, white, and Asian residents with the lowest rate at 7.8 percent. The rate of smoking among Minnesotans who did not graduate from high school was 34.6 percent compared to a much lower rate among college graduates of 7.1 percent.<sup>6</sup> In Ramsey County, those with higher income (>200% poverty) had a smoking rate of 5.8 percent, compared to a much higher rate of 17.9 percent among those less income (<200% poverty).<sup>7</sup>

## RISK FACTORS

Many factors influence tobacco use, and its related diseases and death. Risk factors include race/ethnicity, age, education and socioeconomic status. Tobacco use is also influenced by cultural norms, smoke-free policies, tobacco prices, funding for tobacco prevention and health insurance coverage for cessation.<sup>8</sup>

## Information to note

- Each year, tobacco causes more Minnesotan deaths than alcohol, homicides, car accidents, AIDS, illegal drugs and suicide combined.
- 9.2% of Ramsey County adults report smoking.
- Among Ramsey County 9th graders, cigarette smoking decreased from 7.5% to 2.8% between 2013 and 2016; 8% report E-cigarette use.
- There are large disparities for smoking related to race, education and income.

<sup>1</sup> Health Effects of Cigarette Smoking. Centers for Disease Control and Prevention. [https://www.cdc.gov/tobacco/data\\_statistics/fact\\_sheets/health\\_effects/effects\\_cig\\_smoking/index.htm](https://www.cdc.gov/tobacco/data_statistics/fact_sheets/health_effects/effects_cig_smoking/index.htm). Accessed June 2018.

<sup>2</sup> Data Tables for State and County Tobacco Profiles. Minnesota Department of Health. [http://www.health.state.mn.us/divs/hpcd/tpc/docs/counties/county\\_data\\_tables.pdf](http://www.health.state.mn.us/divs/hpcd/tpc/docs/counties/county_data_tables.pdf). Accessed June 2018.

<sup>3</sup> Tobacco Data Reports. Minnesota Department of Health. <http://www.health.state.mn.us/divs/hpcd/tpc/data.html>. Accessed June 2018.

<sup>4</sup> Minnesota Student Survey. Minnesota Department of Health. <http://www.health.state.mn.us/divs/chs/mss/> Accessed June 2018.

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

<sup>6</sup> Smoking Facts and Figures. Minnesota Department of Health. [https://data.web.health.state.mn.us/web/mndata/smoking\\_basic](https://data.web.health.state.mn.us/web/mndata/smoking_basic). Accessed June 2018.

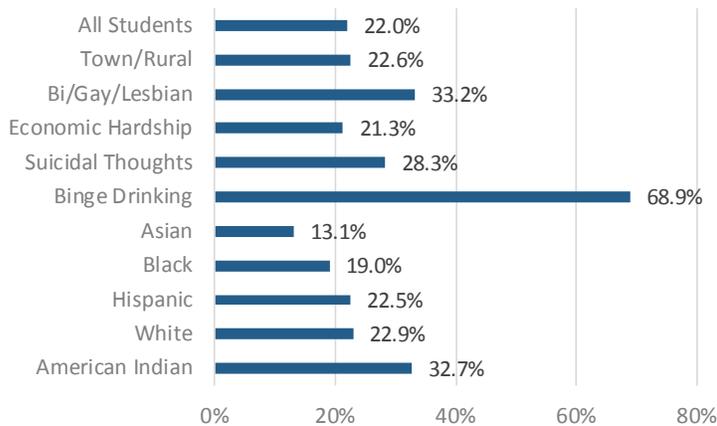
<sup>7</sup> Saint Paul – Ramsey County Public Health. Metro SHAPE Ramsey County Data Book 2014. <https://www.ramseycounty.us/your-government/open-government/research-data/public-health-data>. Accessed June 2018.

<sup>8</sup> Smoking Prevalence – Lifestyle Risk Factors. Centers for Disease Control and Prevention. <https://ephracking.cdc.gov/showHBSmokingPrevalence>. Accessed June 2018.

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

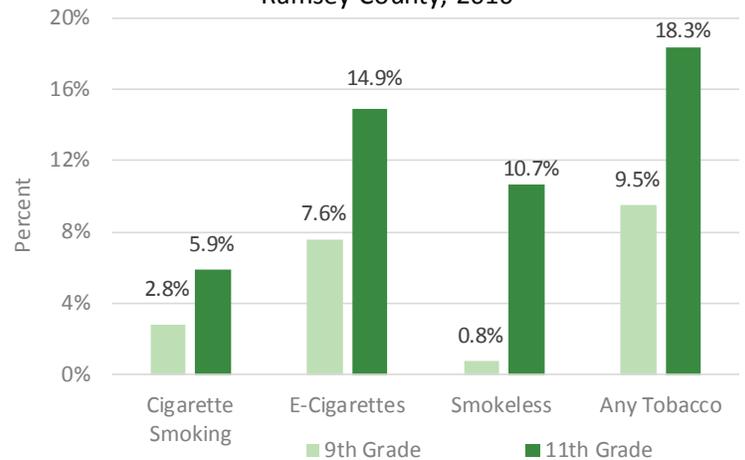
One of Saint Paul – Ramsey County Public Health's areas of focus within the Statewide Health Improvement Program (SHIP), is to reduce the use of, and exposure to tobacco. Partnership successes to create a tobacco-free environment in Ramsey County, include working with the American Lung Association (ALA) to support smoke-free policies at multi-unit housing properties and to support public housing through the transition of the federal HUD smoking ban happening in July of 2018. Partnering with the African American Leadership Forum (AALF) to create change agents to create community support for Menthol Tobacco policy changes; and working with Association for Nonsmokers MN (ANSR) to pass city council ordinances for restricting the sales of menthol products to adult-only stores. The Environmental Health division of Saint Paul- Ramsey County Public Health regulates the Ramsey County Clean Indoor Air Act countywide.

**Cigarette Use in the Past 30 Days, 11th Grade Disparities, Minnesota, 2016**



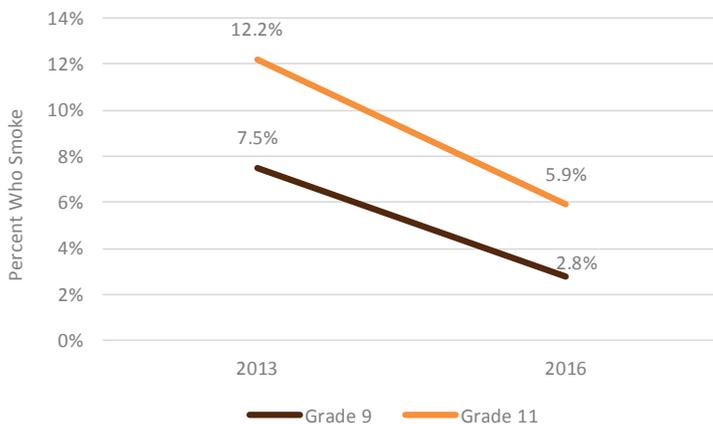
Source Minnesota Department of Health.<sup>9</sup>

**Tobacco Use in Last 30 Days Among Students, Ramsey County, 2016**



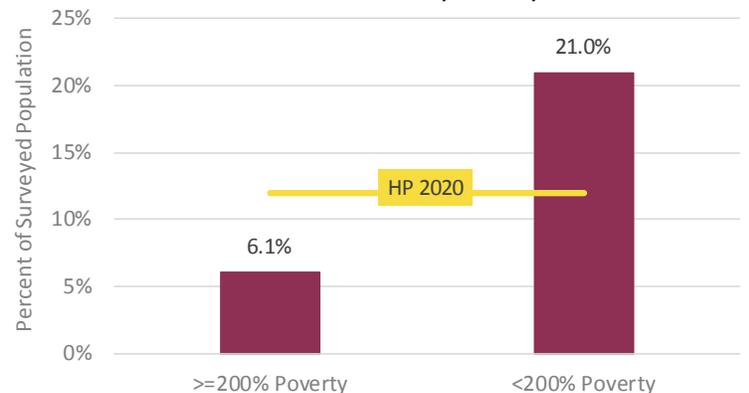
Source: Minnesota Student Survey, 2016.<sup>10</sup>

**Cigarette Smoking in the Past 30 Days, Students, Ramsey County, 2013-2016**



Source: Minnesota Student Survey. Ramsey County data.<sup>10</sup>

**Current Smokers by Household Income, Adults 25+ Years, Ramsey County, 2014**



Source: Saint Paul – Ramsey County Public Health. Metro SHAPE Ramsey County Data Book 2014.<sup>11</sup>

<sup>9</sup> Source Tobacco Profiles. Minnesota Department of Health. [http://www.health.state.mn.us/divs/hpcd/tpc/docs/counties/county\\_data\\_tables.pdf](http://www.health.state.mn.us/divs/hpcd/tpc/docs/counties/county_data_tables.pdf). Accessed June 2018.

<sup>10</sup> Source: Minnesota Student Survey. Minnesota Department of Health. [http://www.health.state.mn.us/divs/hpcd/tpc/docs/counties/county\\_data\\_tables.pdf](http://www.health.state.mn.us/divs/hpcd/tpc/docs/counties/county_data_tables.pdf). Accessed June 2018.

<sup>11</sup> 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 June 2018.

# Alcohol Binge Drinking - Adults

## DESCRIPTION

The Centers for Disease Control and Prevention define binge drinking as a pattern of drinking that brings a person's blood alcohol concentration to 0.08 grams percent or above. This typically happens when men consume 5 or more drinks or women consume 4 or more drinks in about two hours. Binge drinking is the most common, expensive and fatal pattern of excessive alcohol use in the U.S., which costs about \$249 billion annually. Those costs come in the form of losses in productivity and missed work, health care expenses, alcohol-related crime and car crashes, as well as early mortality. Binge drinking can lead to many negative consequences that impact a person's mental, physical and emotional health. All these factors contribute to an adverse impact on the individual drinking and society in general.<sup>1</sup>

## HOW WE ARE DOING

In 2016 in Minnesota, 26.5 of males and 16.2 percent of females report binge drinking in the last 30 days.<sup>2</sup> Among Minnesota college students, 37.2 of males and 21.9 percent of females report binge drinking. Students who engaged in binge drinking reported an average of 19 negative consequences within the past 12 months as a result of drinking, compared to an average of 4.4 negative consequences for students who reported they did not engage in high risk drinking.<sup>3</sup> Among Ramsey County adults 25 years or older, about 72 percent of survey respondents reported drinking at least one alcoholic beverage in the 30 days prior to the survey. About 24.2 percent of men and 21.5 percent women reported binge drinking one or more times during the past 30 days.<sup>4</sup>

## BENCHMARK INDICATOR

Health People 2020: Reduce the proportion of persons engaging in binge drinking during the past 30 days—adults aged 18 years and older.

U.S. Target: 24.4 percent.<sup>5</sup>

## DISPARITIES

Disparities can be seen in relation to gender, age, education, income and race. National research shows that men generally binge drink at twice the frequency as women. Binge drinking prevalence and intensity are highest among 18-24 and 25-34 age groups. Respondents who did not graduate from high school had the lowest prevalence of binge drinking, but those who did binge drink had a higher frequency and intensity of drinking compared to respondents with higher educational levels. Respondents with household incomes >\$75,000 had the highest binge drinking prevalence, but binge drinkers with household incomes <\$25,000 reported a higher frequency and intensity of binge drinking. The prevalence of binge drinking among non-Hispanic whites was similar to the prevalence among Hispanics, but significantly higher than the prevalence for non-Hispanics from other racial and ethnic groups.<sup>6</sup>

## Information to note

- Among Minnesota college students, 37.2% of males and 21.9% of females report binge drinking.
- Among Ramsey County adults 25 or older, 24.2% of men and 21.5% women reported binge drinking one or more times during the past 30 days.

<sup>1</sup> Alcohol and Public Health. Centers for Disease Control and Prevention. <https://www.cdc.gov/alcohol/data-stats.htm>. Accessed May 2018.

<sup>2</sup> BRFSS Prevalence & Trends Data. Centers for Disease Control and Prevention. <https://www.cdc.gov/brfss/brfssprevalence>. Accessed May 2018.

<sup>3</sup> College Student Health Survey Report 2015. [https://boynton.umn.edu/sites/boynton.umn.edu/files/2018-02/MNPPostsecondaryStudents\\_CSHSReport\\_2015.pdf](https://boynton.umn.edu/sites/boynton.umn.edu/files/2018-02/MNPPostsecondaryStudents_CSHSReport_2015.pdf). Published October 2015. Accessed May 2018.

<sup>4</sup> Metro SHAPE Adult Health Data Book: Ramsey County 2014. Ramsey County. [https://www.ramseycounty.us/sites/default/files/Open%20Government/Public%20Health%20Data/ramsey\\_county\\_metro\\_SHAPE\\_2014\\_survey.pdf](https://www.ramseycounty.us/sites/default/files/Open%20Government/Public%20Health%20Data/ramsey_county_metro_SHAPE_2014_survey.pdf). Accessed April 20, 2018.

<sup>5</sup> Healthy People 2020. <https://www.healthypeople.gov/2020/topics-objectives/topic/substance-abuse/objectives>. Accessed May 2018.

<sup>6</sup> Vital Signs: Binge Drinking Prevalence, Frequency, and Intensity Among Adults – United States 2010. Centers for Disease Control and Prevention. 2012. <https://www.cdc.gov/mmwr/preview/mmwrhtml/mm6101a4.htm>. Published January 13, 2012. Accessed May 2018.

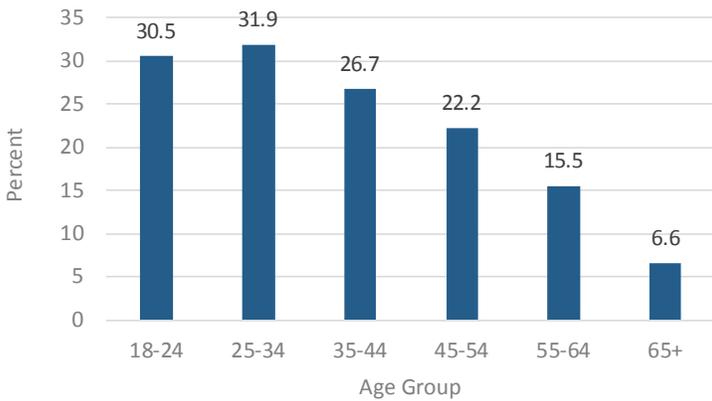
## RISK FACTORS

People binge drink for different reasons, but some factors include: coping with mental health issues, struggling to forget underlying problems; expressing resistance to social norms/rules; and trying to loosen inhibitions. Binge drinking can put a person at higher risk for a long list of health problems including injuries, violence, suicide, sexually transmitted diseases, alcohol poisoning, drowning, unintended pregnancy, fetal alcohol spectrum disorders, sudden infant death syndrome, cancer and other chronic diseases.<sup>7</sup>

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

text Saint Paul – Ramsey County Public Health maintains a disease surveillance role, monitoring the rate of adult binge drinking in Ramsey County.

Binge Drinking among Adults within Last 30 Days, Minneapolis - St. Paul Metropolitan Statistical Area, 2016



Source: Centers for Disease Control and Prevention.<sup>7</sup>

Binge Drinking among Adults within Last 30 Days, Minneapolis - St. Paul Metropolitan Statistical Area



Source: Centers for Disease Control and Prevention.<sup>7</sup>

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

# Adolescent Alcohol Use

## DESCRIPTION

This indicator describes alcohol use among Ramsey County adolescents, including students who report any use and those who report binge drinking. People between the ages of 12 and 20 drink 11 percent of all alcohol consumed in the U.S.<sup>1</sup> Binge drinking for females is defined as drinking 4 or more alcoholic beverages at the same time or within a couple of hours of each other; 5 or more drinks for males.<sup>2</sup> Youth who drink are more likely to experience a host of problems including difficulties in school, legal issues, illness, unwanted, unplanned and unprotected sexual activity, suicide and homicide, car crashes, burns, falls and drowning, and changes in brain development that could be life-long.<sup>3,4,5,6</sup> Almost half of all teen suicides and more than half of adolescent deaths in Minnesota each year involve alcohol.<sup>7</sup>

## HOW WE ARE DOING

The use of alcohol, including binge drinking, among ninth-grade students in Ramsey County has been steadily declining. The Minnesota Student Survey defines binge drinking as 5 or more drinks within a couple of hours regardless of gender. In 2013, 7 percent of both male and female ninth-graders in Ramsey County reported binge drinking. In 2016, 3 percent of males and 4 percent of females said they binged on alcohol (5 or more drinks in a row) in the past 30 days. Overall, 8.7 percent of Ramsey County 9th graders responding in 2016 reported using alcohol one or more days in the 30 days prior to the survey.<sup>8</sup>

## BENCHMARK INDICATOR

Healthy People: Reduce the proportion of adolescents aged 12 to 17 years engaging in binge drinking during the past month.  
U.S. Target: 8.6 percent.

## DISPARITIES

In Ramsey County, a higher percentage of females report drinking in the past 30 days than male ninth-graders. Ramsey County students who identify as “white only” reported higher rates of alcohol use in the past 12 months than students of color.<sup>8</sup> Students who were bisexual, gay, lesbian or questioning their sexual orientation are more likely to drink than their heterosexual classmates.<sup>9</sup>

## RISK FACTORS

There are both individual and community risk factors that contribute to adolescent alcohol use. Evidence shows that traumatic brain injuries in youth can lead to alcohol abuse in later life.<sup>10</sup> Community influences such as laws, cultural norms, extreme economic deprivation

## Information to note

- Alcohol use among 9th-graders in Ramsey County has been steadily declining.
- When they drink, underage youth consume more per occasion on average than adults do.
- Alcohol is the most commonly used and abused substance among youth in the U.S.

<sup>1</sup> Drinking in America: Myths, Realities and Prevention Policy. U.S. Department of Justice, Office of Juvenile Justice and Delinquency Prevention. 2005. <https://www.ncjrs.gov/App/Publications/abstract.aspx?ID=232714>. Accessed August 2018.

<sup>2</sup> Substance Abuse. HealthyPeople.2020. [https://www.healthypeople.gov/node/5206/data\\_details](https://www.healthypeople.gov/node/5206/data_details). Accessed December 5, 2017.

<sup>3</sup> Miller JW, et al. Binge drinking and associated health risk behaviors among high school students. *Pediatrics*. 2007;119:76–85. doi:10.1542/peds.2006-1517.

<sup>4</sup> Bonnie RJ, O’Connell ME, eds. *Reducing Underage Drinking: A Collective Responsibility*. Committee on Developing a Strategy to Reduce and Prevent Underage Drinking. Washington, DC: The National Academies Press; 2004.

<sup>5</sup> U.S. Department of Health and Human Services, Office of the Surgeon General. *The Surgeon General’s Call to Action to Prevent and Reduce Underage Drinking: A Guide to Action for Communities*. Rockville, MD. NCBI. 2007.

<sup>6</sup> Fact Sheets – Underage Drinking. Centers for Disease Control and Prevention. <https://www.cdc.gov/alcohol/fact-sheets/underage-drinking.htm>. Accessed June 14, 2017.

<sup>7</sup> What’s the Big Deal? Underage Drinking in Minnesota. Minnesota Department of Public Safety. <https://dps.mn.gov/divisions/ots/educational-materials/Documents/Whats-Big-Deal-Brochure.pdf>. Accessed December 5, 2017.

<sup>8</sup> Minnesota Student Survey. Minnesota Department of Education Website. <http://w20.education.state.mn.us/MDEAnalytics/DataTopic.jsp?TOPICID=2>. Accessed May 15, 2018.

<sup>9</sup> 2017 Substance Abuse in Minnesota: A State Epidemiological Profile. Substance Use in Minnesota. [http://www.sumn.org/~media/510/2017\\_Minnesota\\_Epi\\_Profile.pdf](http://www.sumn.org/~media/510/2017_Minnesota_Epi_Profile.pdf). Accessed November 2, 2017.

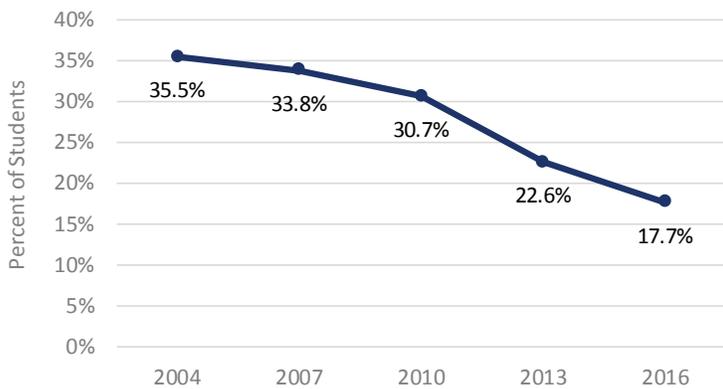
<sup>10</sup> Frontiers. Brain injury in kids might lead to alcohol abuse: Traumatic brain injuries in children and adolescents could lead to alcohol abuse in later life. *Science Daily*. 2017. <https://www.sciencedaily.com/releases/2017/08/170814121052.htm>. Published August 14, 2017. Accessed August 16, 2017.

and neighborhood disorganization can also contribute to use. Interventions in alcohol use are most successful when they focus on the community in general rather than solely on individuals.<sup>11</sup>

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

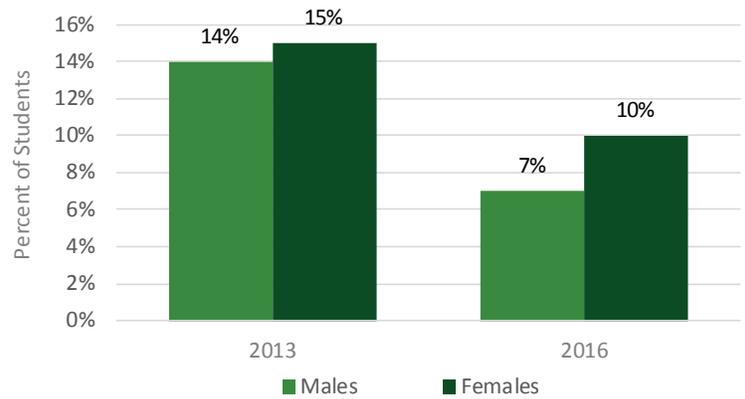
Juvenile Probation offers an on-line curriculum addressing alcohol use and marijuana to those youth on probation with substance use/abuse issues.

Alcohol Use in the Past 12 Months Among 9th-Graders, Ramsey County



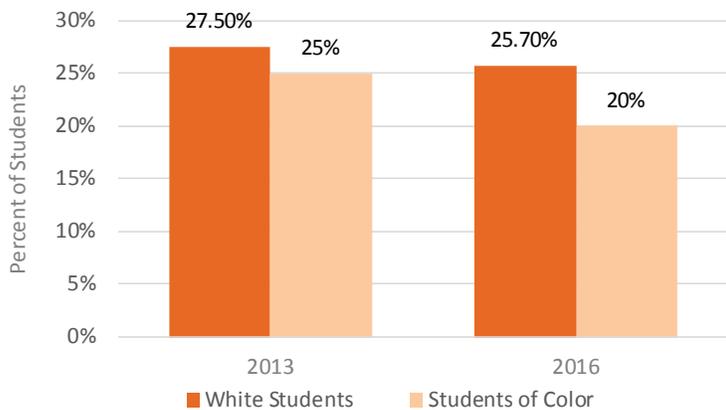
Source: Minnesota Student Survey.

Alcohol Use in the Past 30 Days Among 9th-Graders, Ramsey County



Source: Minnesota Student Survey.

Alcohol Use in the Past 12 Months, Ramsey County Students



Source: Minnesota Student Survey.

<sup>11</sup> Hawkins JD, Catalano RF, Miller JY. Risk and Protective Factors for Alcohol and Other Drug Problems in Adolescence and Early Childhood: Implications for Substance Abuse Prevention. Psychol Bull. 1992;112 (1):64-105. <https://www.ncbi.nlm.nih.gov/pubmed/1529040>. Accessed August 2018.

# Substance Use Disorders and Treatment - Adults

## DESCRIPTION

Substance use disorders (SUDs) have life-long effects that include high costs to individuals, families, health care systems and communities.<sup>1</sup> Research documents the connection between trauma and substance use disorders. While the effects of trauma and exposure to violence are found in all service sectors, it is particularly prominent among people with SUDs involved in the criminal justice system and disproportionately affects communities of color who experience historical and intergenerational trauma.<sup>1</sup> SUD is a common medical condition that is treatable. An estimated 450,000 to 500,000 Minnesotans are directly impacted by addictions with 50,000 treatment admissions- two-thirds publicly funded in Minnesota annually.<sup>2</sup> But every year, nearly 400,000 Minnesotans with SUD will not receive treatment. Many factors contribute to this “treatment gap,” including not being able to afford care, fear of shame and discrimination, and lack of screening for SUDs.<sup>2</sup> Legal penalties for illicit drugs range from probation sentences to prison time. Ninety percent of Minnesota inmates have been diagnosed with a SUD.<sup>3</sup> Recovery from SUDs is a process of change through which individuals improve their health and wellness, live a self-directed life and strive to reach their full potential. People need a stable and safe place to live; meaningful, productive, worthwhile activities; and relationships and social networks that provide support, friendship, love and hope.<sup>1</sup>

## HOW WE ARE DOING

Illicit drug use in Minnesota, most common among adults 18-25, has remained stable in recent years and is below national rates.<sup>2</sup> About 2 percent of Ramsey County students reported having been in treatment for an alcohol or drug use in 2016.<sup>4</sup> It's estimated that over 32,700 Ramsey County residents needed SUD treatment in 2016, and among that group, only 4,186 actually received treatment. In other words, 12.8 percent of those needing treatment received it, which does meet the Healthy People target of 10.9 percent.<sup>5</sup> Since 2012, opioid misuse was top reason for illicit drug treatment for county residents. But for the first time since 2007, methamphetamine addiction became the primary reason for treatment admissions in 2016, accounting for 19.8 percent of admissions. Opioids were close behind at 18.6 percent of admissions.<sup>6</sup> Arrests in Ramsey County for narcotics decreased 31 percent between 2012-2016.<sup>5</sup> The number of Ramsey County adults in prison or on probation for drug offenses decreased 16 percent during the same time.<sup>5</sup>

## BENCHMARK INDICATOR

Healthy People 2020: Increase the proportion of persons who need alcohol and/or illicit drug treatment and received specialty treatment for abuse or dependence in the past year.

U.S. Target: 10.9 percent<sup>7</sup>

## DISPARITIES

Significant SUD disparities persist in diverse communities, including racial and ethnic groups, LGBTQ individuals, people with disabilities, girls and young adults.<sup>1</sup> Various SUD subpopulations face elevated levels of mental health disorders and experience higher rates of suicide. People with mental health disorders have a higher risk of abusing prescription

## Information to note

- In 2016, there were 28,534 Ramsey County residents who needed substance use disorder treatment but did not receive it.
- For the first time since 2007, methamphetamine addiction among county residents became the primary reason for substance use disorder treatment admissions in 2016; bypassing opioid admissions.
- The number of Ramsey County adults in prison or on probation for drug offenses decreased 16%, while the number of narcotics arrests in the county decreased 31% between 2012-2016.

<sup>1</sup> Leading Change 2.0: Advancing the Behavioral Health of the Nation 2015-2018. SAMHSA. <https://www.nasmhpd.org/sites/default/files/PEP14-LEADCHANGE2.pdf>. Accessed April, 2018.

<sup>2</sup> 2018 Substance Abuse in Minnesota: A State Epidemiological Profile. Minnesota Department of Human Services. <http://sumn.org/~media/542/MNEpiProfile2018.pdf>. Accessed April, 2018.

<sup>3</sup> Chemical Dependency Treatment Services in Prison Fact Sheet. Minnesota Department of Corrections. 2017. [https://mn.gov/doc/assets/CD%20Treatment\\_tcm1089-309012.pdf](https://mn.gov/doc/assets/CD%20Treatment_tcm1089-309012.pdf). Published August 2017. Accessed February 2018.

<sup>4</sup> Minnesota Student Survey. Saint Paul – Ramsey County Public Health data set.

<sup>5</sup> Minnesota Department of Human Services. Personal communication February 2018.

<sup>6</sup> Ramsey County. SUMN.org Fact Sheet. SUMN.org Web Site. <http://www.sumn.org/data/location/show.aspx?tf=32%2c32&loc=62&cat=136&ds=a>. Accessed April, 2018.

<sup>7</sup> Substance Abuse. Healthy People.gov. <https://www.healthypeople.gov/2020/topics-objectives/topic/substance-abuse/objectives>. Accessed March 20, 2018.

# Substance Use Disorders and Treatment - Adults

medication than those that do not. In Minnesota, the disparity is large: 22.8 percent of adults with depression use illicit drugs compared to 9.1 percent of adults without depression.<sup>8</sup> Historically, diverse populations tend to have less access to health care, lower or disrupted health care service use and poorer behavioral health outcomes.<sup>9</sup> Twin Cities Metro SUD programs indicate that whites account for the highest percentage of admissions for all substances except cocaine, for which African-Americans account for the highest percentage of admissions.<sup>10</sup>

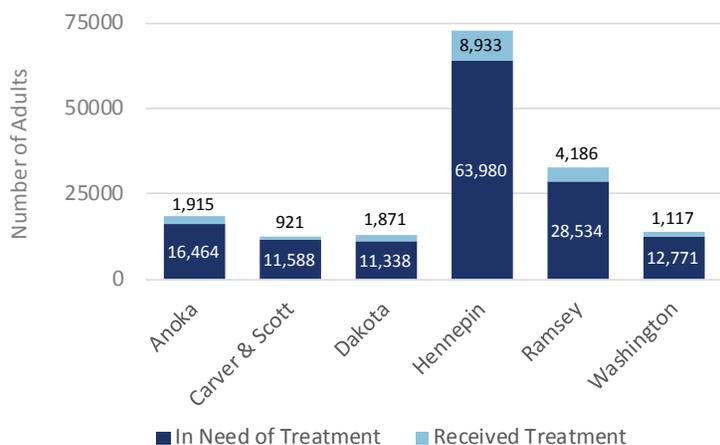
## RISK FACTORS

Risk factors for SUDs include living in poverty, domestic violence, childhood and historical trauma including involvement in the foster care system, and involvement in the criminal justice system.<sup>9</sup> Individuals who live with someone who has a SUD are also at risk.<sup>11</sup>

## WHAT RAMSEY COUNTY IS DOING

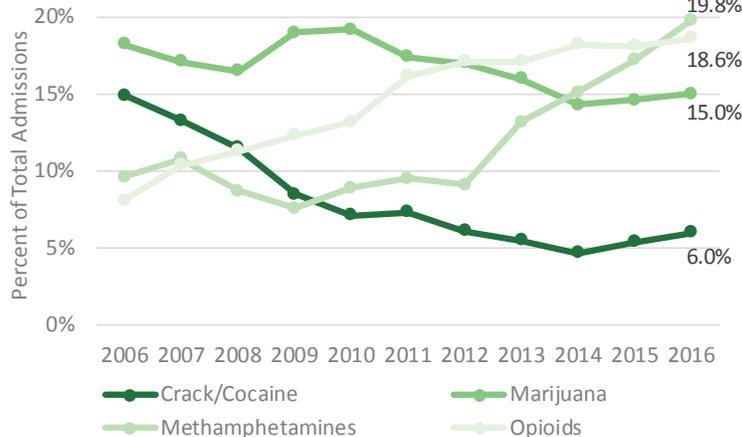
Ramsey County’s criminal justice system recognizes that many offenders have significant underlying issues that attributed to their criminal actions and, therefore, may require additional resources to ensure they do not end up back in court in the future. For this reason, specialized programs such as drug courts, DUI courts and veterans’ courts are in place to assist eligible offenders. The Ramsey County Mental Health Court is one of only three programs in the state that is directed toward offenders who suffer from mental illness or coinciding mental illness and substance use disorders.

Adults in Need of Substance Use Disorder Treatment, 2016



Source: Minnesota Department of Human Services.<sup>12</sup>

Ramsey County Admissions to MN Treatment Facilities for Drugs by Substance



Source: Drug and Alcohol Abuse Normative Evaluation System (DAANES).<sup>13</sup>

<sup>8</sup> Substance Abuse. Healthy People.gov. <https://www.healthypeople.gov/2020/topics-objectives/topic/substance-abuse/objectives>. Accessed March 20, 2018.  
<sup>9</sup> Leading Change 2.0: Advancing the Behavioral Health of the Nation 2015-2018. SAMHSA. <https://www.nasmhpd.org/sites/default/files/PEP14-LEADCHANGE2.pdf>. Accessed April, 2018.  
<sup>10</sup> Park E. Depression and co-occurring substance use disorders: Results from the 2010 Minnesota survey on adults substance use. MN Department of Human Services. 2013. <https://edocs.dhs.state.mn.us/lfserver/Public/DHS-6720-ENG>. Published May 2013. Accessed July 27, 2017.  
<sup>11</sup> Falkowski C. Drug abuse trends in the Minneapolis/St. Paul Metropolitan area. Drug abuse dialogues. 2017. [http://drugabusedialogues.com/drug\\_abuse\\_trends\\_reports/2017\\_April.pdf](http://drugabusedialogues.com/drug_abuse_trends_reports/2017_April.pdf). Published April 2017. Accessed July 20, 2017.  
<sup>12</sup> Minnesota Department of Human Services personal communication, January 2018.  
<sup>13</sup> Drug and Alcohol Abuse Normative Evaluation System (DAANES). SUMN Web Site: <http://sumn.org>. Accessed December, 2017.

## DESCRIPTION

Marijuana is the most commonly used illicit drug among adolescents. Youth also misuse a variety of prescription medications which is the fastest-growing substance use disorder in the U.S.<sup>1</sup> Adolescents take drugs because young brains often have difficulty with impulse control, drugs are readily available and many teens believe that drugs aren't dangerous.<sup>2</sup> Adolescents most often seek substance use treatment for marijuana while adults most often seek treatment for alcohol.<sup>3</sup> Currently, the only access point for youth to substance use treatment is by being assessed and labeled chemically dependent. But youth would rather access treatment if substance use/misuse was viewed as a mental health issue.<sup>4</sup>

## HOW ARE WE DOING

In Ramsey County, alcohol and marijuana are the most commonly used drugs among teens, followed by prescription stimulants and painkillers.<sup>5</sup> There has been significant progress in efforts to reduce adolescent use of marijuana. After several years of little change, marijuana use in the past month among ninth-graders fell dramatically from 9.4 percent in 2013 to 6.8 percent in 2016. But it is concerning that 12.3 percent of students reported driving a vehicle after alcohol or drug use.<sup>5</sup> Five percent of Ramsey County youth (8th, 9th, 11th grade) report using prescription drugs one or more days to get high in the past month, about evenly split between students of color (2.9 percent) and white students (2.1 percent)<sup>5</sup>; the rate is higher for students who identified as LGBTQ (9 percent). More students in 11th grade report misuse of prescription medications, followed by students in eighth grade.<sup>5</sup> Ramsey County teens had 315 admissions for substance use/misuse calendar year 2016 through June 2017.<sup>6</sup> Overall in 2016, 2.1 percent of responding 9th grade students reported using marijuana or another illicit substance at least once in the 12 months prior to the survey.<sup>7</sup>

## BENCHMARK INDICATOR

Healthy People 2020:

1) Reduce the proportion of adolescents aged 12 to 17 years who misuse substances.

U.S.Target: 6.7 percent

2) Reduce the proportion of adolescents reporting use of marijuana during the past 30 days.

U.S. Target: 6.0 percent

## DISPARITIES

In Ramsey County, students of color (5.5 percent) and females (5.2 percent) reported prescription misuse in the past 30 days more often than white students (4.4 percent) or males (4.7 percent) in 2016.<sup>5</sup> There is a disparity between access to substance use treatment between Saint Paul and suburban areas in the county.<sup>4</sup>

## RISK FACTORS

Bullying is a risk factor in substance use: adolescents who bully and those who are bullied are more likely to use substances than their peers.<sup>5</sup>

## Information to note

- Marijuana use in the past month among Ramsey County 9th graders fell dramatically from 9.4% in 2013 to 6.8% in 2016.
- 5% of Ramsey County youth report using prescription drugs one or more days to get high in the past month, about evenly split between students of color and white students. 9% of students who identified as LGBTQ used drugs on one or more occasions in the past month.
- Youth would rather access treatment if substance use/misuse was viewed as a mental health issue.

<sup>1</sup> Rise in Prescription Drug Misuse and Abuse Impacting Teens. Substance Abuse and Mental Health Administration Web site. <https://www.samhsa.gov/homelessness-programs-resources/hpr-resources/teen-prescription-drug-misuse-abuse>. Accessed July 20, 2017.

<sup>2</sup> Andersen SL, Teicher MH. Desperately driven and no brakes: Developmental stress exposure and subsequent risk for substance abuse. *Neuroscience & Biobehavioral Reviews* 33(4):516–524, 2009

<sup>3</sup> Principles of Adolescent Substance Use Disorder Treatment: A research-based guide. National Institute on Drug Abuse Web site. <https://www.drugabuse.gov/publications/principles-adolescent-substance-use-disorder-treatment-research-based-guide/introduction>. Accessed July 17, 2017.

<sup>4</sup> How Do We Implement SUD Treatment and Support? Minnesota Department of Human Services, Alcohol and Drug Abuse Division. Accessed November 3, 2016.

<sup>5</sup> Minnesota Student Survey. Saint Paul – Ramsey County Public Health database

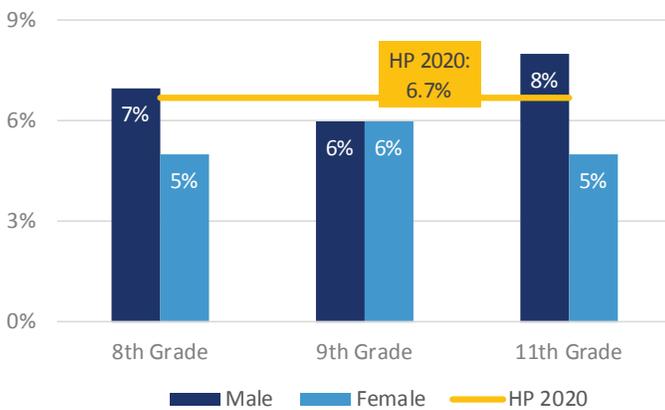
<sup>6</sup> Minnesota Department of Human Services, ADAD, DAANES. Accessed January 29, 2018.

<sup>7</sup> Minnesota Student Survey. Minnesota Department of Education Website. <http://w20.education.state.mn.us/MDEAnalytics/DataTopic.jsp?TOPICID=2>. Accessed May 15, 2018.

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

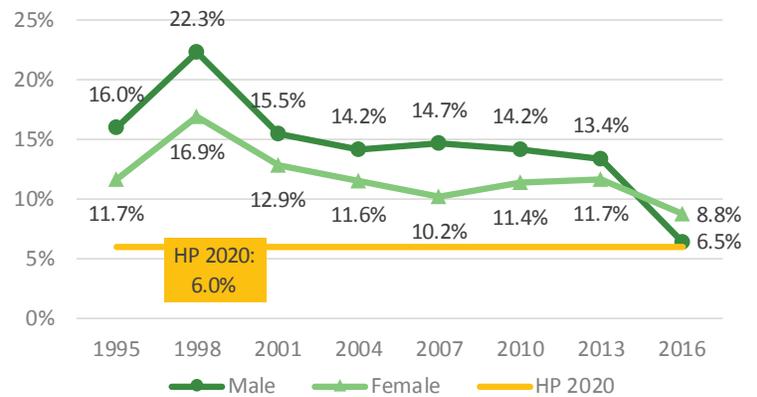
Workforce Solutions provides programming to youth and employment services to parents on public assistance. A primary focus of Workforce Solutions programming is to improve the education of participants so that they are prepared for employment opportunities. Reducing stress on families through increased earnings is at the core of Workforce Solutions programming. In recent years, Workforce Solutions has begun working with the children of parents receiving some form of public assistance. These efforts have included mentoring in the schools and working directly as a liaison with the schools to ensure that children and adolescents receive the most appropriate services while they are in school. County funded cultural consultants have met directly with school administrators and counseling staff to advocate for families from high-risk demographics on public assistance. The county intends to enhance these services over the next five years.

### Students Reporting Marijuana or Other Drug Use in the Past Year, Ramsey County, 2016



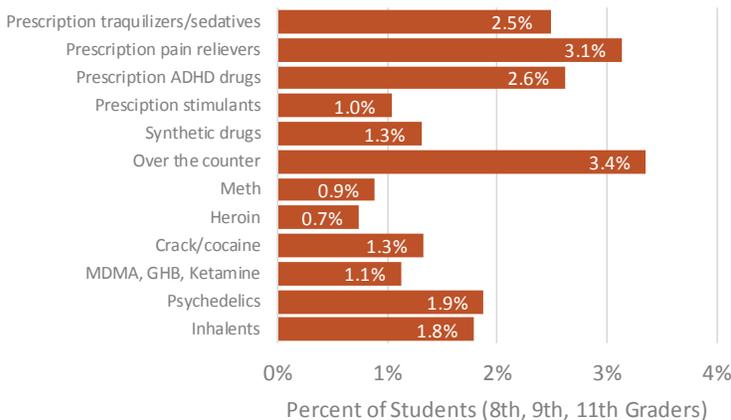
Source: Minnesota Student Survey.<sup>8</sup>

### 9th Graders Reporting Marijuana Use in Past Month, Ramsey County



Source: Minnesota Student Survey, Saint Paul - Ramsey County Public Health.

### Substance Use/Prescription Misuse, Ramsey County 2016



Source: Minnesota Student Survey, Saint Paul - Ramsey County Public Health.

### Student Substance Use/Misuse, Ramsey County 2016

Behavior	Percent of students (8th, 9th, 11th Graders) reporting alcohol/drug use
Drove a motor vehicle after using alcohol/drugs on more than one occasion.	12.3 %
Needed to use a lot more alcohol/drugs to get same effect.	12 %
Attempted to cut down on use of alcohol/drugs.	7.2 %

Source: Minnesota Student Survey, Saint Paul - Ramsey County Public Health.

<sup>8</sup> Minnesota Student Survey. <http://www.health.state.mn.us/divs/chs/mss/countytables/ramsey16.pdf>. Accessed March 1, 2018.

# Opioid Misuse and Death

## DESCRIPTION

Opioid misuse includes the misuse of prescription opioid pain relievers or the use of heroin. Prescription drug misuse is second only to marijuana use as the most commonly used illicit drug. Even if the reason for misuse was to relieve physical pain (the most common reason), use without a prescription of one's own or use at a higher dosage or more often than prescribed constitutes misuse. Although prescription drug misuse is common in the U.S., most people (87.2 percent) who take prescription pain relievers do not misuse them.<sup>1</sup> The current opioid epidemic in the U.S. is so far-reaching that it is an important factor contributing to the declining life expectancy of the nation.<sup>2</sup> Fatal and non-fatal overdoses are key indicators of the scope and lethality of the opioid epidemic.

## HOW WE ARE DOING

Between 2008 – 2016, deaths in Minnesota related to opioid increased from 226 to 395, while in Ramsey County these deaths increased from 24 to 34. During that same time, heroin-related deaths in Minnesota increased from 8 to 150, in Ramsey County, these deaths increased from 2 to 13.<sup>3</sup> For every drug overdose that results in death, there are many more nonfatal overdoses. In 2016, the rate of nonfatal opioid-related emergency department visits among Ramsey County residents was at its lowest level in the past five years, 70.2 per 100,000 residents,<sup>4</sup> and opioid prescribing rates in Ramsey County are at their lowest in the past 10 years (499 per 1000 residents).<sup>5</sup> About 5 percent of Ramsey County 11th graders reported using prescription pain relievers not prescribed for them in 2016.<sup>4</sup> Data from 2017 crime reports show that Ramsey County has the lowest rate of drug abuse crimes than the other Twin Cities metro counties (225 per 100,000 population). The number of arrests in Ramsey County for opioid and synthetic narcotics have decreased from 681 in 2013 to 537 in 2017 (which was 41.1 percent of all the total drug arrests).<sup>6</sup>

## DISPARITIES

The number of white Minnesotans who die from opioid overdoses is higher than others, but Native American and African-American communities die from opioid overdoses at higher rates. In 2015, Minnesota ranked first among all states when measuring the disparity-rate ratio of deaths due to drug overdose among African-Americans and American Indians relative to whites. Data from 2016 show the disparity has continued and worsened. The realities of poverty, racism, classism, social isolation, sexual exploitation and other social inequities affect people's vulnerability to and capacity for effectively dealing with drug-related harms.<sup>7,8</sup>

## RISK FACTORS

Individuals in physical pain with access to prescription pain relievers are most at risk for opioid misuse. Challenges in safe storage and disposal of prescriptions also contribute to the opioid crisis. Most patients fail to store opioid in locked locations, including those with children and adolescents who are particularly vulnerable to risks of opioid misuse and

## Information to note

- Between 2008 – 2016 in Ramsey County, the number of opioid-related deaths increased from 24 to 34, while the number of heroin-related deaths increased from 2 to 13.
- In 2016, the rate of nonfatal opioid-related emergency department visits among Ramsey County residents was at its lowest level in the past five years, 70.2 per 100,000 residents.

<sup>1</sup> Hughes A, Williams MR, Lipari RN, Bose J, Copello EA, Kroutil LA. Prescription drug use and misuse in the United States: Results from the 2015 National Survey on Drug Use and Health. SAMHSA. 2016. <https://www.samhsa.gov/data/sites/default/files/NSDUH-FFR2-2015/NSDUH-FFR2-2015.htm>. Published September 2016. Accessed September 2018.

<sup>2</sup> John Hopkins Bloomberg School of Public Health and the Clinton Foundation. The Opioid Epidemic: From Evidence to Impact. Paper presented at America's Opioid Epidemic Meeting. October 30, 2017; Baltimore, MD.

<sup>3</sup> Opioid Dashboard. Minnesota Department of Health. <http://www.health.state.mn.us/divs/healthimprovement/opioid-dashboard/>. Accessed September 2018.

<sup>4</sup> Saint Paul – Ramsey County Public Health data set.

<sup>5</sup> Reports and Statistics. Minnesota Prescription Monitoring Program. <http://www.pmp.pharmacy.state.mn.us/reports-and-statistics.html>. Accessed September 2018.

<sup>6</sup> Criminal Justice Data Reporting. Uniform Crime Reports. Bureau of Criminal Apprehension. <https://dps.mn.gov/divisions/bca/bca-divisions/mnjis/Pages/uniform-crime-reports.aspx>. Accessed September 2018.

<sup>7</sup> Opioid Dashboard. Minnesota Department of Health. <http://www.health.state.mn.us/divs/healthimprovement/opioid-dashboard/>. Accessed September 2018.

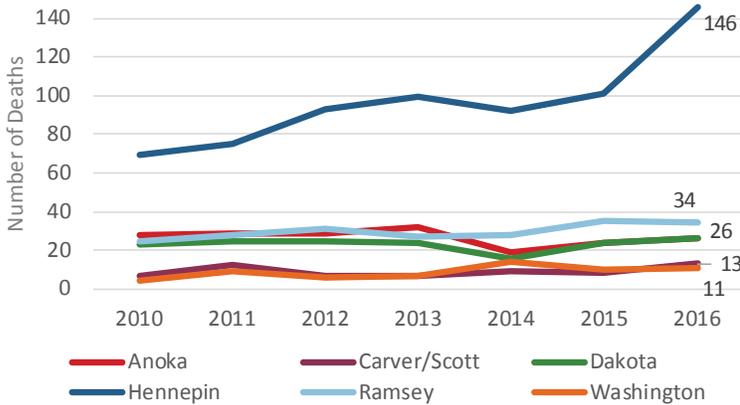
<sup>8</sup> Wright N, Roesler J. Drug overdose deaths among Minnesota residents, 2000-2016. Minnesota Department of Health. 2017. <http://www.health.state.mn.us/divs/healthimprovement/data/reports/drugoverdose.html>. Published August 2017. Accessed September 2018.

overdose. Over half of people who report non-medical use of prescription opioids state their most recently used drug came from a friend or family member.<sup>9</sup>

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

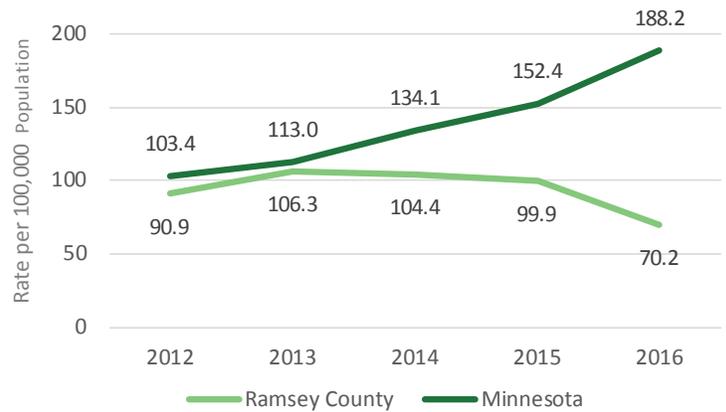
The Minnesota Department of Human Services is the designated authority for alcohol and drug abuse prevention and treatment. There are many activities in Minnesota's Opioid Action Plan<sup>10</sup> that aim to address opioid misuse and death (e.g., patient and provider education, monitoring prescribing practices, and increasing access to medications used to reverse the toxic effects of an overdose). Minnesota is one of 39 states that allows individuals to administer Naloxone to a person without being subject to liability or prosecution. Increasing access to treatment for individuals with opioid use disorder is imperative, together with a substantial program of research to develop new non-addictive treatments for pain.<sup>11</sup>

Opioid-Involved Overdose Deaths, Metro Counties



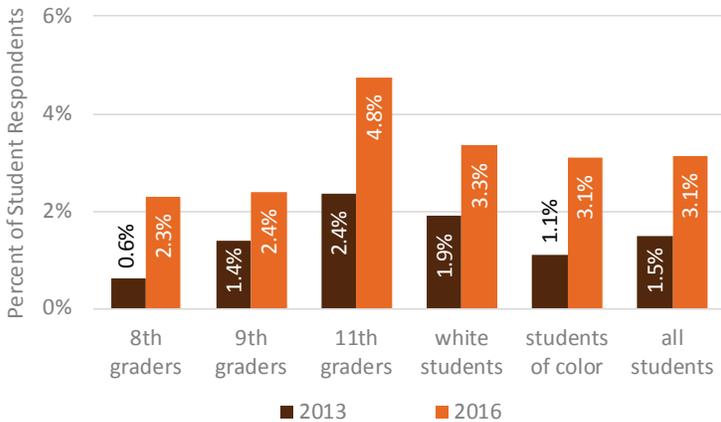
Source: Minnesota Department of Health. SPRCPH analysis.

Rate of Nonfatal Opioid-Related Emergency Department Visits



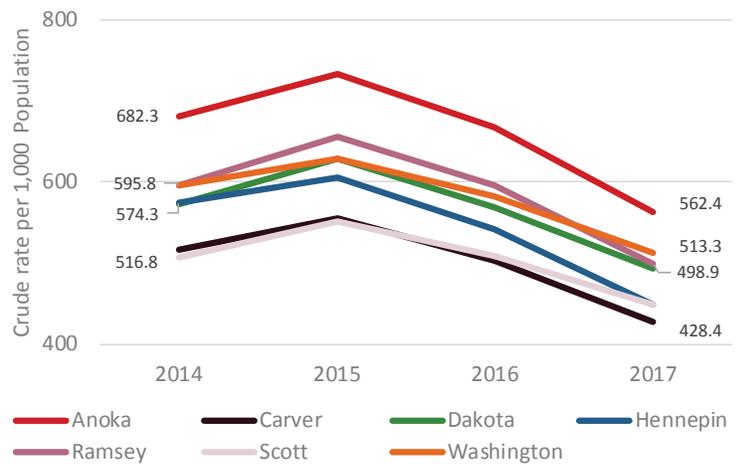
Source: Saint Paul - Ramsey County Public Health data set.

Youth Who Used Prescription Pain Relievers Not Prescribed to Them to Get High On At Least 1 Occasion in Past 12 Months, Ramsey County



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

Opioids Dispensed to Residents, 7-County Metro



Source: Minnesota Prescription Monitoring Program, Reports and Statistics.<sup>12</sup>

<sup>9</sup> Reports and Detailed Tables from the 2017 National Survey on Drug Use and Health (NSDUH). SAMHSA. <https://www.samhsa.gov/data/nsduh/reports-detailed-tables-2017-NSDUH>. Accessed September 2018.

<sup>10</sup> Minnesota's Opioid Action Plan. [http://www.mn.gov/gov-stat/pdf/2018\\_02\\_14\\_Minnesota\\_Opioid\\_Action\\_Plan.pdf](http://www.mn.gov/gov-stat/pdf/2018_02_14_Minnesota_Opioid_Action_Plan.pdf). Published February 14, 2018. Accessed September 2018.

<sup>11</sup> Drug overdose deaths among Minnesota residents, 2000 – 2015. Minnesota Department of Health. <http://www.health.state.mn.us/divs/healthimprovement/content/documents/2015OpioidDeathReport.pdf>. Accessed 11/28/2017.

<sup>12</sup> Minnesota Prescription Monitoring Program, Reports and Statistics. <http://pmp.pharmacy.state.mn.us/reports-and-statistics.html>. Accessed August 2018.

# Drug Overdose Deaths

## DESCRIPTION

More than 72,000 Americans died from drug overdoses in 2017, including illicit drugs and prescription opioids—a twofold increase in a decade.<sup>1</sup> Deaths due to drug overdose can be accidental, intentional, or due to overdose of a specific drug/ multiple drugs. Despite the circumstances, deaths due to drug overdose are preventable and lead to personal, family and community suffering. The leading drug categories associated with deaths are opiate pain relievers, heroin, psychostimulants (e.g., methamphetamine), cocaine and benzodiazepines.<sup>2</sup> Preventing deaths from drug overdose requires efforts among individuals, professional providers, families, neighbors, friends and community to recognize overdose, manage addiction, contain the drugs and other interventions.<sup>1</sup>

## HOW WE ARE DOING

The number of drug overdose deaths are on the rise nationwide, with the sharpest increases related to fentanyl and fentanyl analogs (synthetic opioids).<sup>1</sup> In Minnesota, the number of deaths due to overdose have risen from 129 deaths in 2000 to 675 in 2016. During that same period, Ramsey County overdose deaths went from 14 in 2000 up to 89 in 2016. The age-adjusted overdose death rate for Ramsey County in 2016 was 17.8 per 100,000 which is higher than other metro counties' rates and Minnesota's rate of 12.3, none of which meet the Healthy People 2020 target of 11.3. Looking back over the past five years, the Ramsey County rate is not rising as quickly as some other metro counties. In 2016, most overdose deaths in Ramsey County were opioid-involved (34), followed by heroin-involved and psychostimulant-involved (each 13 deaths).<sup>2</sup>

## BENCHMARK INDICATOR

Healthy People 2020<sup>3</sup>: Reduce the number of drug-related deaths.  
U.S. Target: 11.3 per 100,000 population.

## DISPARITIES

Previously, adults ages 45 to 54, were the group experiencing the most drug overdose deaths in Minnesota, but since 2016, this has shifted to those 25 to 34 years.<sup>2</sup> The age-adjusted rate of death due to drug poisoning is more than four times greater among American Indian/Alaska Native residents than white residents, and two times greater among African-Americans relative to whites. These rate disparities are some of the highest in the nation.<sup>4</sup> Men have more deaths and higher mortality rates of drug overdose death compared to women. In 2016, men accounted for 67 percent of drug overdose deaths in Minnesota.<sup>2</sup>

## RISK FACTORS

Risk factors associated with drug overdose mortality include but are not limited to: history of drug abuse/ addiction; injection drug use, street drug use, drug mixing, prescription drug misuse, multiple medication use, and history of mental disorders.<sup>5,6</sup>

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

text

## Information to note

- The age-adjusted overdose death rate for Ramsey County in 2016 was higher than other metro counties' rates and Minnesota's rate.
- See Opioid Misuse and Death section of this document for additional information.

<sup>1</sup> Drug Overdose Death Rates. National Institute on Drug Abuse. <https://www.drugabuse.gov/related-topics/trends-statistics/overdose-death-rates>. Updated August 2018. Accessed August 2018.

<sup>2</sup> Drug Overdose Deaths among Minnesota Residents 2000-2016. Minnesota Department of Health. [http://www.health.state.mn.us/divs/healthimprovement/content/documents-opioid/2016DrugOverdoseDeathReport\\_Final.pdf](http://www.health.state.mn.us/divs/healthimprovement/content/documents-opioid/2016DrugOverdoseDeathReport_Final.pdf). Accessed August 2018.

<sup>3</sup> Substance Abuse. Healthy People 2020. <https://www.healthypeople.gov/2020/topics-objectives/topic/substance-abuse/objectives>. Accessed August 2018.

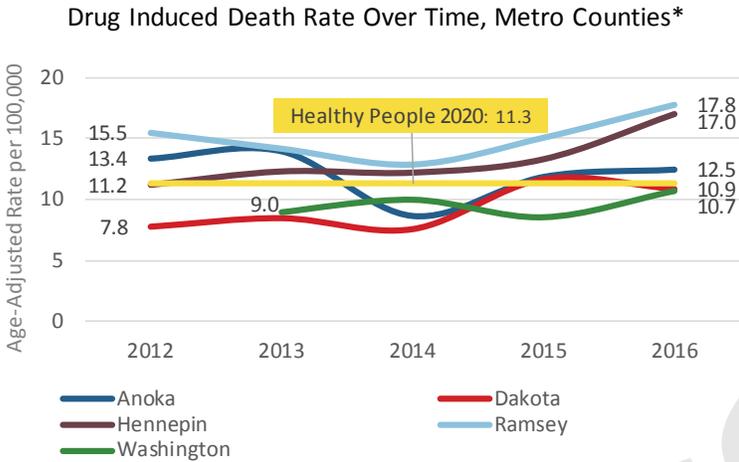
<sup>4</sup> Rudd RA, Aleshire N, Zibbell JE, Gladden RM. Increases in drug and opioid overdose deaths – United States, 2000-2014. MMWR. 2016;64(50):1378-82. <https://www.cdc.gov/mmwr/preview/mmwrhtml/mm6450a3.htm>. Published January 1, 2016. Accessed August 2018.

<sup>5</sup> Drug Overdose. Healthline. <https://www.healthline.com/health/drug-overdose>. Accessed August 2018.

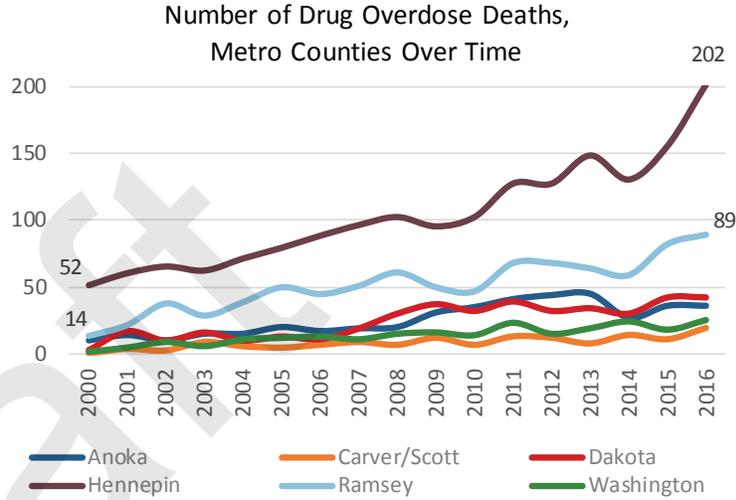
<sup>6</sup> Heroin Overdose Data. Center for Disease Control and Prevention. <https://www.cdc.gov/drugoverdose/data/heroin.html>. Accessed August 2018.

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

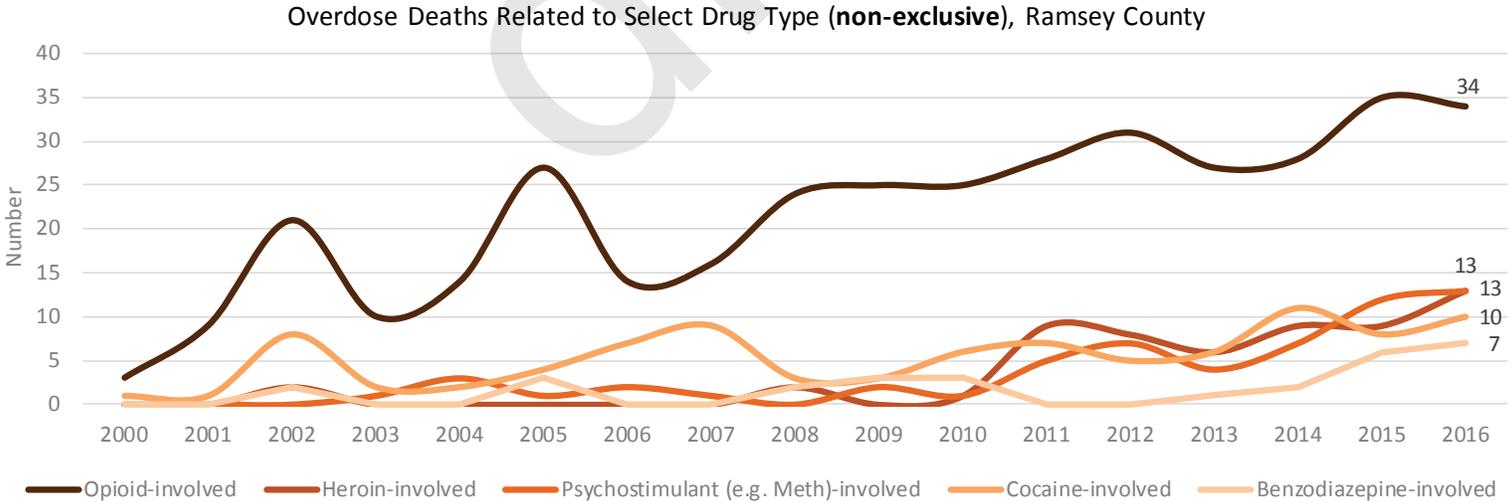
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\* Data not reliable for 20 or less deaths (Carver/Scott Counties and 2012 Washington County)  
Source: CDC Wonder



Source: Minnesota Department of Health.<sup>8</sup>



Source: Minnesota Department of Health.<sup>8</sup>

<sup>7</sup> CDC Wonder. Centers for Disease Control and Prevention. <https://wonder.cdc.gov/>. Accessed August 2018.  
<sup>8</sup> Drug Overdose Deaths Among Minnesota Residents 2000-2016. Minnesota Department of Health Website. [http://www.health.state.mn.us/divs/healthimprovement/content/documents-opioid/2016DrugOverdoseDeathReport\\_Final.pdf](http://www.health.state.mn.us/divs/healthimprovement/content/documents-opioid/2016DrugOverdoseDeathReport_Final.pdf). Accessed August 2018.

## DESCRIPTION

Injuries, unintentional and intentional, are a major contributor to mortality rates. Unintentional injuries are the fourth leading cause of death behind cancer, heart disease and stroke in Minnesota. Injuries take the lives of more than 1,800 Minnesotans each year and send nearly 300,000 more to the hospital. This results in enormous human suffering to the victim as well as families and communities. In addition, the economic toll adds up to billions of dollars each year.<sup>1</sup> Many people accept injuries as “accidents,” but most injury deaths are preventable.

## HOW ARE WE DOING

Between 2006 and 2016, the rate of hospital-treated injury deaths in Ramsey County (intentional and unintentional), rose from 14.2 to 28.4 per 100,000 residents. Compared to other counties in the seven-county metro area, Ramsey County ranked second highest with 28.4 for every 100,000 people, behind Hennepin county with 28.7. Both counties were above the Minnesota rate of 24.8 injury deaths per 100,000 population. In residents ages zero to 19, there was a fatal unintentional injury rate of 5.9 for every 100,000 people between 2014 and 2016. In adults age 20 and over, this rate was much higher at 68.4 in 2016.<sup>2</sup> In 2016, Ramsey County lost 129 residents due to unintentional injury fatalities. This was 11 percent of the state total and 22.5 percent of the seven-county metro total in the same year. The most common causes were falls, poisonings and motor vehicle-related crashes.<sup>3</sup>

## BENCHMARK INDICATOR

Healthy People 2020: Reduce fatal injuries. Minnesota Injury Data Access System State injury mortality rate in 2016: 24.8 per 100,000 standard population.

Healthy People 2020: Reduce unintentional injury deaths. Minnesota Injury Data Access System State mortality rate in 2016: 17.4 per 100,000 standard population.

## DISPARITIES

Nationally in 2015, the injury death rate for males was two times that for females.<sup>4</sup> The age group most likely to see fatal injuries are those age 85 and over. In 2016 in Ramsey County, there were 41 total unintentional injury deaths in this age group. This was a rate of 367.7 for every 100,000 residents in this age group.<sup>3</sup>

## RISK FACTORS

Unsafe physical environments in the home and community (e.g., unlocked guns, poisonous products, fall hazards). Lack of cohesive social environment within families, neighborhoods, communities. Non-supportive societal-level factors (e.g., lack of laws requiring motorcycle helmet use).

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

text

## Information to note

- Males in Ramsey County die from injuries more often than females.
- Ramsey County deaths from injuries is at its highest rate (2016) in 10 years and has the second highest rate in the metro area.

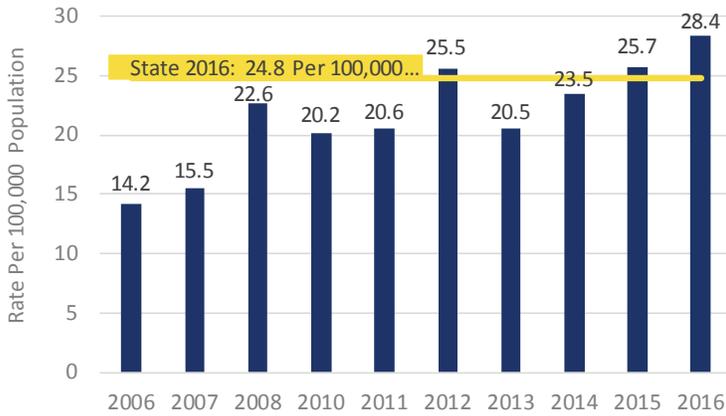
<sup>1</sup> Preventing Unintentional Injury in Minnesota: A Working Plan for 2020. Minnesota Department of Health. <https://www.minnesotasafetycouncil.org/2020Plan/UnintentionalInjuryOnline.pdf> Accessed October 24, 2017.

<sup>2</sup> Minnesota Vital Statistics Interactive Queries. Minnesota Department of Health Website. <https://mhsq.web.health.state.mn.us/frontPage.jsp>. Accessed May 15, 2018.

<sup>3</sup> Minnesota Injury Data Access System. Minnesota Department of Health Web site. <http://www.health.state.mn.us/injury/midas/injury/index.cfm>. Accessed September 28, 2017.

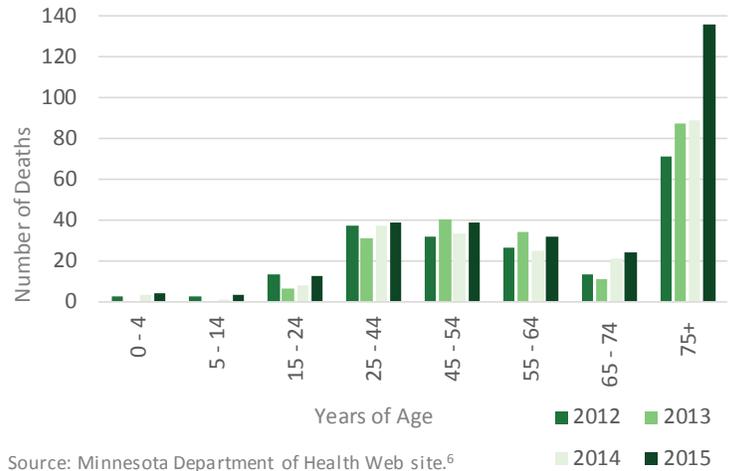
<sup>4</sup> Injury and Violence. Healthy People 2020 Web site. <https://www.healthypeople.gov/2020/leading-health-indicators/2020-ih-topics/Injury-and-Violence/data#homicides>. Accessed August 18, 2017.

### Deaths Due to Injury among Hospital Treated Patients, All Manners of Intent, Ramsey County



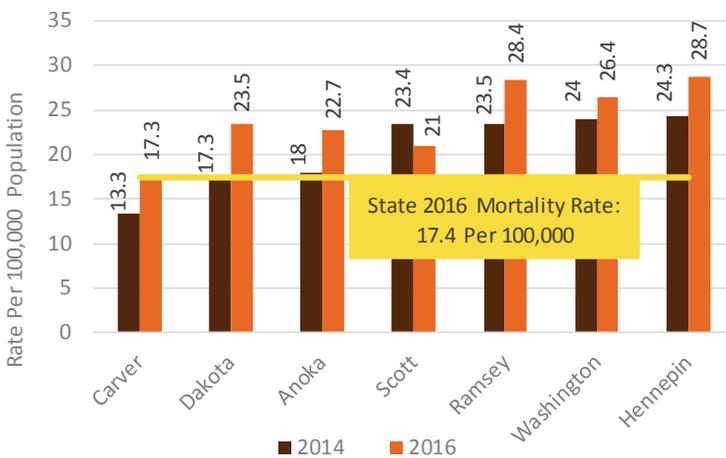
Source: Minnesota Department of Health Web site.<sup>5</sup>

### Unintentional Injury Deaths, Ramsey County



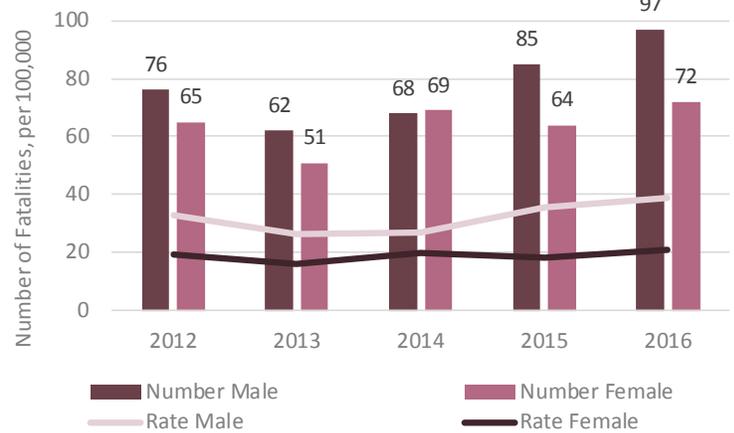
Source: Minnesota Department of Health Web site.<sup>6</sup>

### Hospital Treated Unintentional Injury Death Rates



Source: Minnesota Department of Health Web site.<sup>7</sup>

### Hospital-Treated Injury Death Rates and Numbers, Ramsey County



Source: Minnesota Department of Health Web site.<sup>7</sup>

<sup>5</sup> Minnesota Injury Data Access System. Minnesota Department of Health Web site. <http://www.health.state.mn.us/injury/midas/injury/index.cfm>. Accessed September 28, 2017.

<sup>6</sup> 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.

<sup>7</sup> Minnesota Injury Data Access System. Minnesota Department of Health Web site. <http://www.health.state.mn.us/injury/midas/injury/index.cfm>. Accessed September 28, 2017.

## DESCRIPTION

Unintentional, or accidental injuries can lead to enormous amounts of death, disability, and cost and can cause immense human suffering for individuals, their families and communities. However, most unintentional injuries are predictable and preventable. In Minnesota, the top five causes of injuries that result in death are: falls, traffic crashes, poisonings, suffocation and drownings. The top five causes of hospital or emergency department visits for nonfatal unintentional injuries are: falls, traffic crashes, poisonings, being struck by or against something, and overexertion.<sup>1</sup>

## HOW WE ARE DOING

Ramsey County death rates from unintentional injuries have been steadily rising since 1997 with the largest increase occurring most recently during 2012-2016. Ramsey County ranked second among the metro counties for unintentional injury deaths during that 5-year period and no longer meets the Healthy People 2020 target. Ramsey County also ranked second highest in total number of hospital-treated, nonfatal unintentional injury visits (28,197), second to Hennepin County; most visits were made by residents ages 75 and over (11.4 percent of all visits), followed by children ages one to four years (2,669 visits in 2016). Ramsey County had the second highest nonfatal unintentional injury visit rate among the metro counties at 5,202 per 100,000.<sup>2</sup> Among Ramsey County age groups, the highest nonfatal unintentional injury rate is among those age 85 and over (14,948 per 100,000 residents.) Two other age groups with high rates were those ages 80 to 84 (8,790 per 100,000) and young children ages one to four years (8,722 per 100,000.) Generally, the rate of hospital-treated nonfatal unintentional injuries in Ramsey County decreased between 2010 and 2014. However, in 2015 there was a sharp increase, which then declined slightly in 2016. The top cause of hospital-treated nonfatal unintentional injury in Ramsey County has been falls, with the highest rates among those 85 years or older.<sup>2</sup> Youth under age 19 had the largest rate increases for nonfatal injuries from falls during 2012-2016, with infants under age one increasing 320 percent.

## BENCHMARK INDICATOR

Healthy People 2020<sup>3 4</sup>:

1) Reduce unintentional injury deaths.

U.S. Target: 36.4 per 100,000 population.

2) Reduce number of hospital emergency department visits for nonfatal unintentional injuries.

U.S. Target: 8,310.1 per 100,000 population.

3) Reduce the rate of emergency department visits due to falls among adults 65 years and older.

U.S. Target: 4711.6 per 100,000 population.

## DISPARITIES

Males have higher rates of hospital-treated, nonfatal unintentional injury visits than females in Ramsey County. In 2016, males had 14,606 (5,594 per 100,000) visits where females only had 13,591 (4,738 per 100,000) visits.<sup>2</sup> The age group with the largest occurrence of fatal injuries were those ages 65 and over. Ramsey County residents in this age group made-up 70 percent of all fatal injuries in 2016.<sup>2</sup>

(continued on back)

## Information to note

- Most unintentional injuries are predictable and preventable.
- During the past 5 years in Ramsey County, the largest rate increases for hospital-treated injuries caused by falls occurred in youth age groups, with babies under age 1 increasing 320% and children ages 1-14 increasing over 100%.

<sup>1</sup>Preventing Unintentional Injury in Minnesota. Minnesota Department of Health. <https://www.minnesotasafetycouncil.org/2020Plan/UnintentionalInjuryOnline.pdf>. Published September 2012. Accessed August 2018.

<sup>2</sup>Hospital Treated Injuries. MIDAS- Minnesota Department of Health. <http://www.health.state.mn.us/injury/midas/index.cfm>. Accessed August 2018.

<sup>3</sup>Injury and Violence Prevention. Healthy People 2020. <https://www.healthypeople.gov/2020/topics-objectives/topic/injury-and-violence-prevention/objectives>. Accessed August 2018.

<sup>4</sup>Older Adults. Healthy People 2020. <https://www.healthypeople.gov/2020/topics-objectives/topic/older-adults/objectives>. Accessed August 2018.

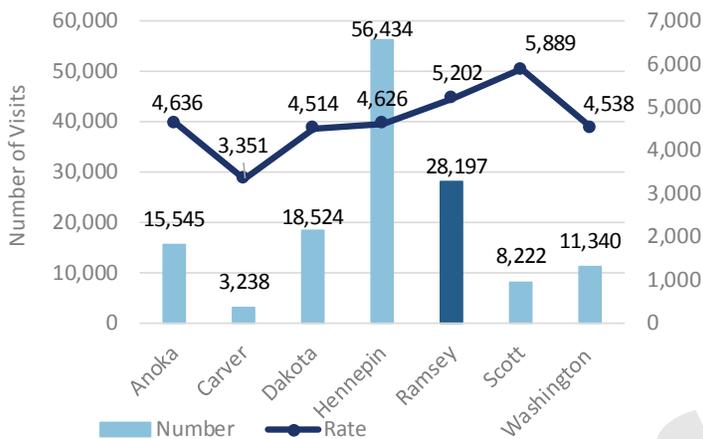
## RISK FACTORS

Unintentional injuries among the rural elderly were closely related to chronic disease, mental health and residence environment.<sup>5</sup>

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

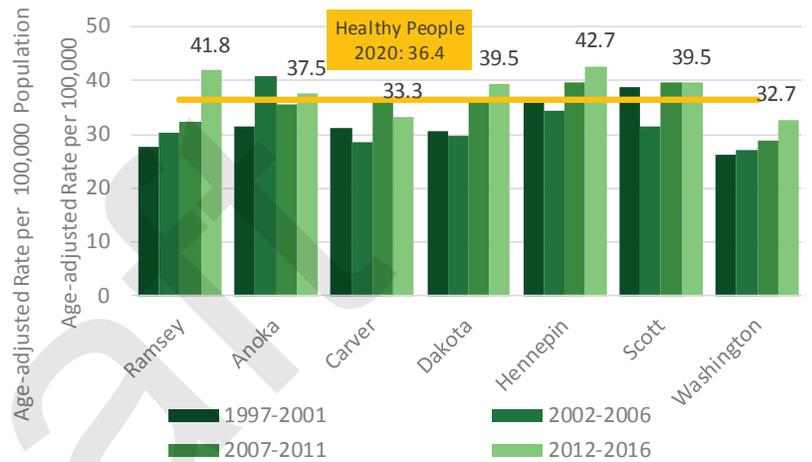
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Rate and Number of Hospital-Treated Non-Fatal Unintentional Injury Visits, Metro Counties, 2016



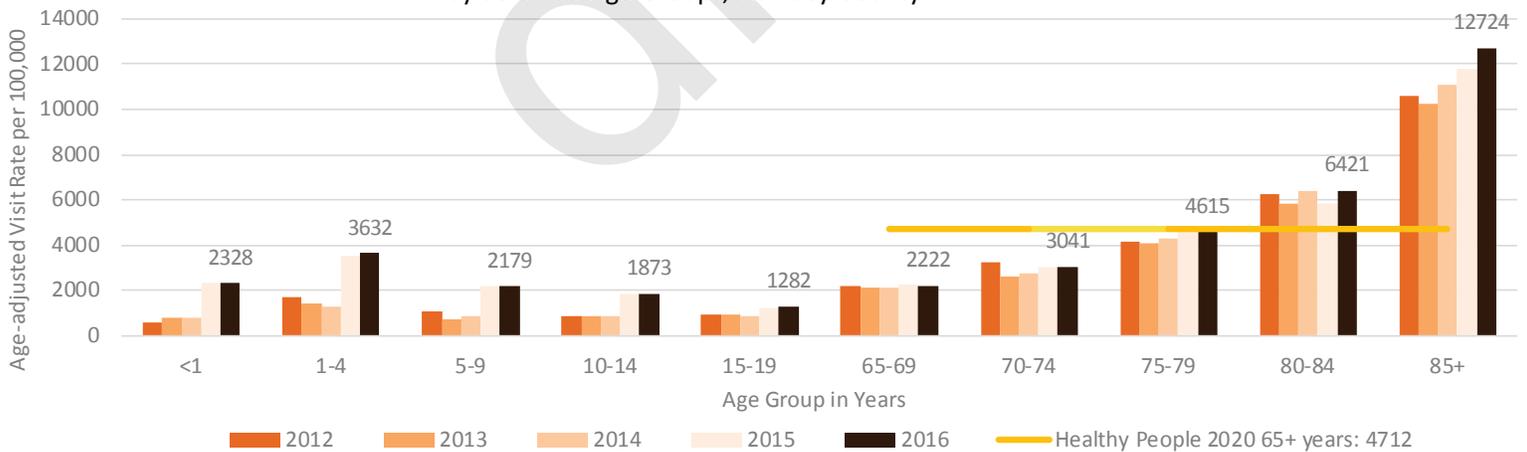
Source: Hospital Treated Injuries. MIDAS-Minnesota Department of Health.<sup>6</sup>

Unintentional Injury Death Rate Over Time, 7-County Metro



Source: Minnesota Department of Health.<sup>7</sup>

Percent Change Over 5 Years in Hospital-Treated Unintentional Injuries from Falls by Selected Age Groups, Ramsey County



Source: Hospital Treated Injuries. MIDAS. Minnesota Department of Health.<sup>8</sup>

<sup>5</sup> Zang H, Wei F, Han M, Chen J, Peng S, Du Y. Risk factors for unintentional injuries among the rural elderly: a county-based cross-sectional survey. Scientific Reports. 2017. <https://www.nature.com/articles/s41598-017-12991-3>. Published October 2, 2017. Accessed August 2018.

<sup>6</sup> Hospital Treated Injuries. MIDAS. Minnesota Department of Health. <https://midas.web.health.state.mn.us/injury/index.cfm>. Accessed August 2018.

<sup>7</sup> Minnesota State, County, and Community Health Board Vital Statistics Trend Reports. Minnesota Department of Health. <http://www.health.state.mn.us/divs/chs/genstats/trends/index.html>. Accessed August 2018.

<sup>8</sup> Hospital Treated Injuries. MIDAS. Minnesota Department of Health. <https://midas.web.health.state.mn.us/injury/index.cfm>. Accessed August 2018.

## DESCRIPTION

Workplaces are a significant source of injury and exposure to hazardous substances, which can lead to disability, illness and death.<sup>1</sup> Despite improvements in occupational safety and health over the last several decades, workers continue to suffer work-related deaths, injuries and illnesses.<sup>2</sup> Nationally, more than 4.1 million workers suffer a serious job-related injury or illness every year. In addition to pain and suffering, inadequate workers' compensation benefits, and insufficient medical insurance can result in lost employment and wages, debt, a loss of home ownership and bankruptcy.<sup>3</sup> Since the passage of the Occupational Safety and Health Act (OSHA) in 1970, rates of workplace injury and illness have fallen dramatically.<sup>4</sup>

## HOW WE ARE DOING

In Minnesota, rates of workplace injury and illness dropped 31 percent between 2006 and 2016. The 2015 rate of 3.5 injuries per 100 was below the Healthy People 2020 goal of 3.8 injuries per 100 full-time workers but still above national average of 3.<sup>5</sup> Workers' compensation indemnity claims are paid injury and illness claims that require more than three days of work disability or payment of permanent disability benefits. Indemnity claims account for approximately 23 percent of all paid workers' compensation claims. The number of claims decreased in Ramsey County between 2005 and 2016 from 2,454 in 2005 to 1,634 in 2016.<sup>6</sup>

## BENCHMARK INDICATOR

Healthy People 2020<sup>1</sup>: Reduce non-fatal work-related injuries.

U.S. target: 3.8 injuries per 100 full-time workers.

## DISPARITIES

Racial and ethnic minorities, recent immigrants, younger and older workers, and workers with disabilities are at increased risk for work-related illness and injury.<sup>1</sup> Several factors contribute to this, including employment in high-hazard industries like transportation, construction and agriculture. Discrimination, low literacy, and lack of health insurance are also factors.<sup>8</sup> Temporary help agency workers have double the injury rate of permanent workers. Temporary workers are often immigrants and minorities who don't receive adequate safety training. In Minnesota in 2014, 2 percent of workers were temporary, but injuries among them accounted for 4 percent of indemnity claims. In addition, men make up 91 percent of the work-related fatal injuries. Of these deaths, transportation incidences accounted for 51 percent.<sup>9</sup>

(continued on back)

## Information to note

- Racial and ethnic minorities, recent immigrants, younger and older workers, and workers with disabilities are at increased risk for work-related illness and injury.
- Men make up 91 percent of workplace fatalities.

<sup>1</sup> Occupational Safety and Health. Healthy People 2020. <http://www.healthypeople.gov/2020/topics-objectives/topic/occupational-safety-and-health/objectives>. Accessed August 2018.

<sup>2</sup> Occupational injuries and deaths among younger workers—United States, 1998–2007. Centers for Disease Control and Prevention. 2010. 59(15):449-55. <https://www.cdc.gov/mmwr/preview/mmwrhtml/mm5915a2.htm>. Published April 23, 2010. Accessed August 2018.

<sup>3</sup> Osha. Healthier workers. Safer workplaces. A stronger America. Injury and illness prevention programs, white paper. United States Department of Labor. <https://www.osha.gov/dsg/InjuryIllnessPreventionProgramsWhitePaper.html>. Published January 2012. Accessed August 2018.

<sup>4</sup> Timeline of OSHA's 40-year history. United States Department of Labor. <https://www.osha.gov/osha40/timeline.html>. Accessed August 2018.

<sup>5</sup> Survey shows Minnesota workplace injury rate sets another new all-time low. Minnesota Department of Labor and Industry. <http://www.dli.mn.gov/business/workplace-safety-and-health/mnosha-compliance-safety-lines-archive>. Published October 28, 2016. Accessed August 2018.

<sup>6</sup> Minnesota Department of Labor and Industry. Personal correspondence. Brian Zaidman, August 2018.

<sup>7</sup> Occupational Safety and Health. Healthy People 2020. <https://www.healthypeople.gov/2020/topics-objectives/topic/occupational-safety-and-health/objectives>. Accessed August 2018.

<sup>8</sup> Occupational health disparities – inputs: occupational safety and health risks. Centers for Disease Control and Prevention. <https://www.cdc.gov/niosh/programs/ohd/risks.html>. Accessed August 2018.

<sup>9</sup> Fatal Work Injuries in Minnesota – 2016. Bureau of Labor Statistics. [https://www.bls.gov/regions/midwest/news-release/fatalworkinjuries\\_minnesota.htm](https://www.bls.gov/regions/midwest/news-release/fatalworkinjuries_minnesota.htm). Accessed August 2018.

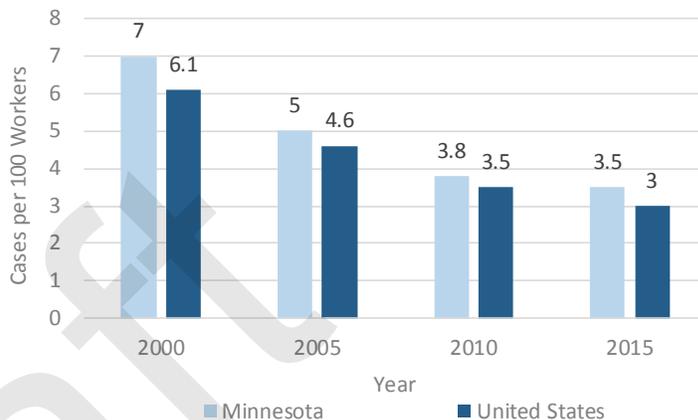
## RISK FACTORS

Changes in working conditions, like longer hours, compressed work weeks, shift work, reduced job security, and temporary work, as well as lack of training about new materials, processes and equipment can pose risks to worker health.<sup>10</sup> Some of the most dangerous situations are transporting or dealing with harmful substances, as most of the work-related fatal injuries that occur in Minnesota are due to transportation incidents, followed by exposure to harmful substances or environments.<sup>11</sup>

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

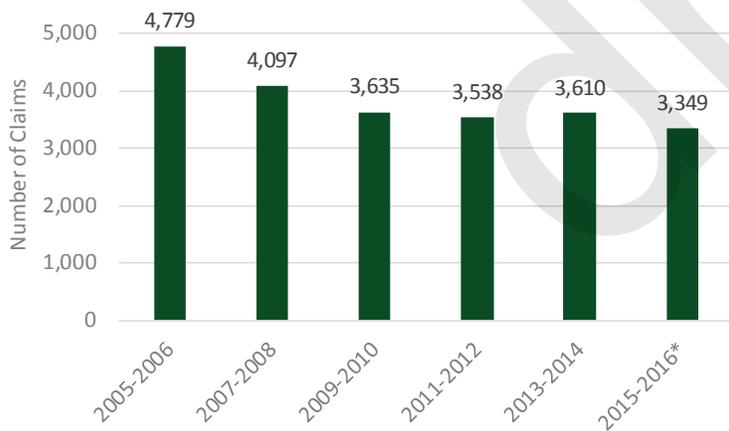
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Work-Related Injury and Illness in the Private Sector



Source: Minnesota Department of Labor and Industry.<sup>12</sup>

Indemnity Claims, Ramsey County



\*Claims counts for 2016 are preliminary.

Source: Minnesota Department of Labor and Industry.<sup>12</sup>

Fatal Occupational Injuries by Event or Exposure, Minnesota

Event or Exposure	2015 Number	2016 Number	Percent
Total	74	92	100
Violence and other injuries by persons or animals	7	10	11
Intentional injury by person	7	9	10
Homicides (Intentional injury by other person)	4	3	3
Suicides (Self-inflicted injury-intentional)	3	6	7
Transportation incidents	31	46	50
Pedestrian vehicular incident	4	4	4
Roadway incidents involving motorized land vehicle	19	29	32
Roadway collision with other vehicle	11	17	18
Roadway collision—moving in opposite directions, oncoming	2	8	9
Roadway collision—moving perpendicularly	6	4	4
Roadway collision with object other than vehicle	3	10	11
Vehicle struck object or animal on side of roadway	3	9	10
Nonroadway incident involving motorized land vehicles	5	7	8
Nonroadway noncollision incident	4	4	4
Jack-knifed or overturned, nonroadway	3	3	3
Falls, slips, trips	13	11	12
Falls on same level	3	3	3
Falls to lower level	10	8	9
Other fall to lower level	6	7	8
Other fall to lower level less than 6 feet	--	3	3
Exposure to harmful substances or environments	3	12	13
Exposure to other harmful substances	3	6	7
Nonmedical use of drugs or alcohol—unintentional overdose	--	4	4
Contact with objects and equipment	17	10	11
Struck by object or equipment	11	6	7
Struck by falling object or equipment—other than powered vehicle	5	5	5
Struck, caught, or crushed in collapsing structure, equipment, or material	1	3	3

Source: Fatal Work Injuries in Minnesota. Bureau of Labor and Statistics.<sup>13</sup>

<sup>10</sup> Occupational injuries and deaths among younger workers—United States, 1998–2007. Centers for Disease Control and Prevention. 2010. 59(15):449-55. <https://www.cdc.gov/mmwr/preview/mmwrhtml/mm5915a2.htm>. Published April 23, 2010. Accessed August 2018.

<sup>11</sup> Occupational health disparities – inputs: occupational safety and health risks. Centers for Disease Control and Prevention. <https://www.cdc.gov/niosh/programs/ohd/risks.html>. Accessed August 2018.

<sup>12</sup> Workplace Safety- Research and Statistics. Minnesota Department of Labor and Industry Web site. <http://www.dli.mn.gov/>. Accessed August 2018.

<sup>13</sup> Fatal Work Injuries in Minnesota. Bureau of Labor and Statistics. [https://www.bls.gov/regions/midwest/news-release/fatalworkinjuries\\_minnesota.htm](https://www.bls.gov/regions/midwest/news-release/fatalworkinjuries_minnesota.htm). Accessed August 2018.

## DESCRIPTION

Globally, falls are a major public health problem. An estimated 424,000 fatal falls occur each year in the U.S. making it the second leading cause of unintentional injury death. In Minnesota between 2005 and 2015, there were an average 10,500 hospitalizations for fall-related injuries each year. While all people who fall have a risk of injury, the age, gender and health of the individual can all impact the type and severity of injury.<sup>1</sup>

## HOW ARE WE DOING

In Minnesota, there were 115,942 hospitalizations for fall-related injuries in 2015. Ramsey County residents made 10,532 of these visits (9 percent). This was a five-year high for the county. Thirty-two percent of visits were made by adults aged 65 and older. Another 19 percent occurred with children who were nine and younger. There were 71 falls that were fatal or caused fatal injuries. Of these, 86 percent were adults aged 65 and older. Along with this, the rate of death due to falls in those age 65 and older in 2016 was 144.8 for every 100,000 population.<sup>2</sup> This does not meet the Healthy People goal.

## BENCHMARK INDICATOR

Healthy People 2020: Prevent an increase in fall-related deaths among adults aged 65 years and older.

U.S. Target: 47 per 100,000 population.

## DISPARITIES

Older people have the highest risk of death or serious injury arising from a fall and the risk increases with age. In 2015 in Ramsey County, residents aged 60 and older made up 37.5 percent of all fall-related hospitalizations and ED visits.<sup>2</sup> Older women and younger children are especially prone to falls and increased injury severity.<sup>1</sup>

## RISK FACTORS

- Occupations at elevated heights or other hazardous working conditions
- Alcohol or substance use
- Unsafe environments, particularly for those with poor balance and limited vision
- Side effects of medication, physical inactivity and loss of balance, particularly among older people
- Underlying medical conditions, such as neurological, cardiac or other disabling conditions.<sup>1</sup>

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

text

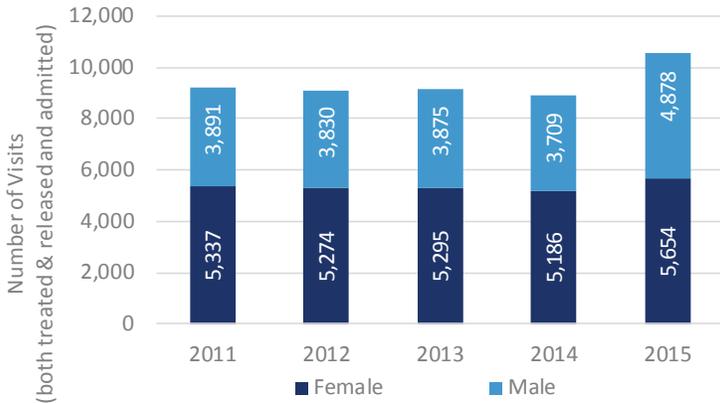
## Information to note

- Over 70 falls caused fatal injuries in Ramsey County in 2015. Of these, 86% were adults aged 65 and older.
- Older people have the highest risk of death or serious injury arising from a fall and the risk increases with age.
- Ramsey County is not meeting the Healthy People 2020 target (47 per 100,000 population) for unintentional fall-related deaths among adults aged 65 years and older (89.8 per 100,000 population).

<sup>1</sup> Falls. World Health Organization. <http://www.who.int/mediacentre/factsheets/fs344/en/>. Accessed July 24, 2017.

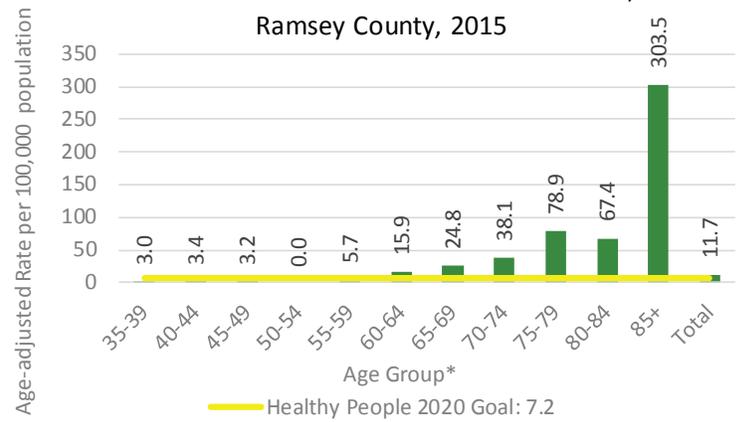
<sup>2</sup> MIDAS. Minnesota Department of Health. <http://www.health.state.mn.us/injury/midas/injury/index.cfm>. Accessed July 24, 2017.

### Fall-related Emergency Department Visits among Ramsey County Residents



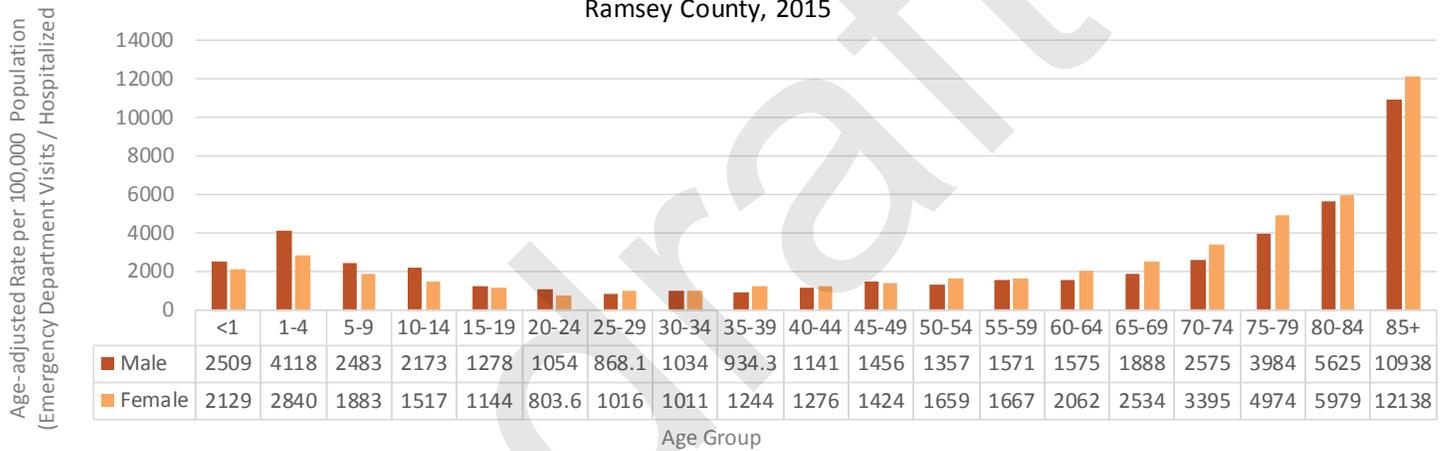
Source: MIDAS. Minnesota Department of Health<sup>3</sup>

### Rate of Unintentional Fall-related Fatalities, Ramsey County, 2015



\*there were no fatalities for agegroups under 35-39  
Source: MIDAS. Minnesota Department of Health Web Site.<sup>4</sup>

### Rate of Unintentional Fall-related Injury and Death, Ramsey County, 2015



Source: MIDAS. Minnesota Department of Health Web<sup>5</sup>

<sup>3</sup> MIDAS (2016) Minnesota Department of Health. Access 7/24/2017 from: <http://www.health.state.mn.us/injury/midas/injury/index.cfm>

<sup>4</sup> MIDAS. Minnesota Department of Health Web Site. <http://www.health.state.mn.us/injury/midas/injury/index.cfm>. Accessed July 24, 2017.

<sup>5</sup> MIDAS. Minnesota Department of Health Web.

# Firearm-Related Injury

## DESCRIPTION

Firearm injuries and fatalities are a large cause for concern in the U.S., in fact, Americans are 25 times more likely to be murdered with a gun than people in other developed countries.<sup>1</sup> About 500 Minnesotans are hospitalized or receive emergency care as a result of firearm injuries each year.<sup>2</sup> Over the last decade, an average of 368 Minnesotans per year died from firearms, and 77 percent of those were suicides.<sup>3</sup> Both fatal and nonfatal gun injuries cost Minnesota \$764 million per year in medical costs, criminal justice expenses, employer costs and lost income. This cost increases to an estimated \$2.2 billion per year with the addition of reduced quality of life caused by pain and suffering. The cost of gun violence in Minnesota is equal to 11 percent of the state's yearly general fund spending.<sup>4</sup>

## HOW WE ARE DOING

In 2016, there were 143 firearm-related injuries treated in a hospital or emergency department among Ramsey County residents-142 nonfatal injuries and one fatality. Ramsey County is not meeting the Healthy People 2020 target for nonfatal firearm-related injuries. In 2016, Ramsey County's rate was 22.4 per 100,000 population. Ramsey County's firearm-related fatality rate of 0.2 for every 100,000 people does meet the Healthy People 2020 target of 9.3.<sup>2</sup>

## BENCHMARK INDICATOR

Healthy People 2020:

- 1) Reduce firearm-related deaths.  
U.S. Target: 9.3 deaths per 100,000 population
- 2) Reduce nonfatal firearm-related injuries.  
U.S. Target: 18.6 injuries per 100,000 population

## DISPARITIES

In 2016, Ramsey County males were far more likely than females to be injured by firearms.<sup>2</sup> In 2015 in the U.S., blacks had a firearm-related fatality rate of 20.7, the highest among all race/ethnicities.<sup>5</sup> In Minnesota, black/African-Americans are much more likely than whites to be killed by firearms, but whites are more likely than black/African-Americans to use guns to kill themselves. Minnesota data show that black/African-Americans are 12 times more likely than whites to die from gun homicides; however, the gun-suicide rate for whites is three times higher than the rate for black/African-Americans.<sup>6</sup>

## RISK FACTORS

Firearm-related death rates are seven times higher in the states with the highest rates of household gun ownership compared to states with the lowest rates.<sup>7</sup> Improper firearm handling and storage can lead to unintentional injuries and death. In adolescents, a national study found risk factors that may indicate future gun injuries including living with less than

- Ramsey County is not meeting the Healthy People 2020 target for nonfatal firearm-related injuries.
- In Minnesota, black residents are much more likely than whites to be killed by firearms, but whites are more likely than blacks to use guns to kill themselves.

<sup>1</sup>Everytown for Gun Safety. Learn What It Takes to Keep America Safe. <https://everytown.org/learn/>. Accessed March 28, 2018.

<sup>2</sup>Minnesota Department of Health. Minnesota Injury Data Access System (MIDAS). <http://www.health.state.mn.us/injury/midas/violence/index.cfm>. Accessed February 2, 2018.

<sup>3</sup>Gun Violence and Background Checks in Minnesota. <https://everytownresearch.org/gun-violence-and-background-checks-in-minnesota/>. Accessed May 2018.

<sup>4</sup>Minnesota Coalition for Common Sense. The economic cost of gun violence in Minnesota: A business case for action. 2016. <http://americansforresponsiblesolutions.org/files/2016/12/The-Economic-Cost-of-Gun-Violence.pdf>. Accessed February 2, 2018.

<sup>5</sup>Disparities Overview by IVP-30 firearm related deaths. Healthy People 2020. <https://www.healthypeople.gov/2020/data/disparities/summary/Chart/4768/3>. Accessed February 9, 2018.

<sup>6</sup>Centers for Disease Control and Prevention, National Center for Health Statistics. Underlying Cause of Death 1999-2010 on CDC WONDER Online Database, released 2012. Data are from the Multiple Cause of Death Files, 1999-2010, as compiled from data provided by the 57 vital statistics jurisdictions through the Vital Statistics Cooperative Program.

<sup>7</sup>Harvard School of Public Health. Harvard Injury Control Research Center. Homicide – Suicide – Accidents – Children and Women. 2009. <http://www.hsph.harvard.edu/research/hicrc/firearms-research/guns-and-death>. Accessed May 2018.

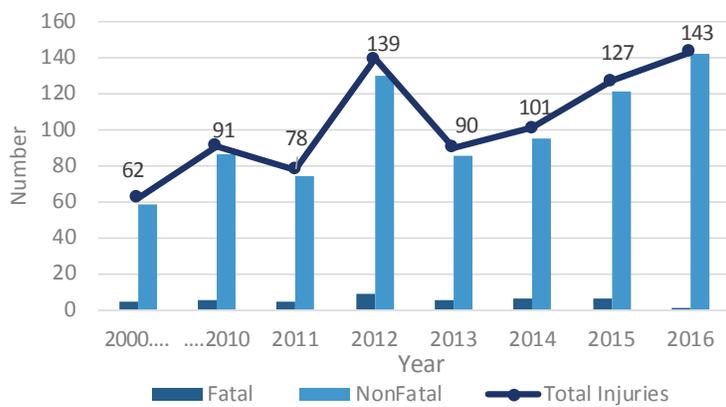
two parents, skipping class during school and previous arrest.<sup>8</sup> States that require background checks for gun sales report a lower rate of suicide, domestic violence, homicide and police killed with handguns.<sup>1</sup> In Minnesota, no background check is required to purchase through a private sale or transfer, which makes it easy for those who are prohibited from possessing a gun under federal and state law to obtain a firearm.

## WHAT RAMSEY COUNTY IS DOING

Two places in Minnesota state law prohibit the collection of data regarding guns, which prevents essential public health research from taking place.<sup>9</sup> Ramsey County supports state funding initiatives to conduct surveillance for all forms of violent injury and research regarding the role of firearms in violence, and the effectiveness of different types of firearm laws.

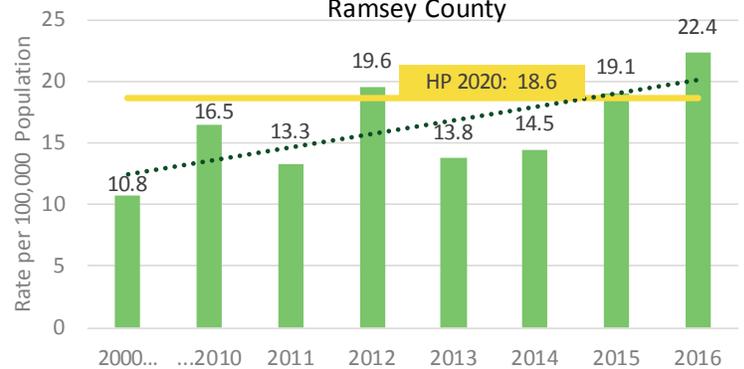
**Are we doing any lobbying on this? Gun locks still being distributed?**

Hospital and Emergency Department-Treated Injuries\* from Firearms, Ramsey County



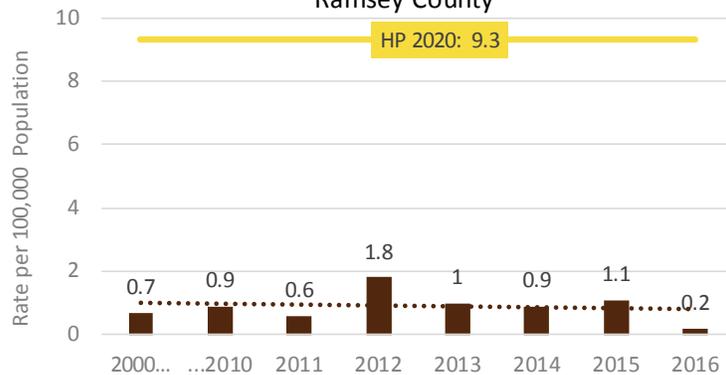
\* includes paintball and airgun injuries  
Source: Minnesota Department of Health. MIDAS.<sup>10</sup>

Rate of Non-Fatal Firearm-Related Injuries Treated in a Hospital or Emergency Department, Ramsey County



Source: Minnesota Department of Health MIDAS.<sup>10</sup>

Rate of Fatal Firearm-Related Injuries Treated in a Hospital or Emergency Department, Ramsey County



Source: Minnesota Department of Health. MIDAS<sup>10</sup>

<sup>8</sup>Paris CA, Edgerton EA, Sifuentes M, et al. Risk factors associated with non-fatal adolescent firearm injuries. *BMJ Journals*. 2002;8:147–150. <http://injuryprevention.bmj.com/content/8/2/147>. Accessed February 9, 2018.

<sup>9</sup>MN Statute 144.05 and 625.714. <https://www.revisor.mn.gov/statutes>. Accessed May 2018.

<sup>10</sup>Source: Hospital Treated Injuries. MIDAS- Minnesota Department of Health Web site. <http://www.health.state.mn.us/injury/midas/injury/index.cfm>. Accessed February 2, 2018.

# Injury - Household Poisonings

## DESCRIPTION

A poison is anything that can harm someone if it is 1) used in the wrong way, 2) used by the wrong person, or 3) used in the wrong amount. Poisons come in various forms (solids, liquids, sprays and vapors); some may be harmful if they come into direct contact with the eyes or skin while others may be toxic if breathed or swallowed. Examples of household poisons include: alcohols (including alcoholic beverages as well as mouthwash, facial cleaners and hair tonics), pesticides and insect repellents, paint and paint strippers, laundry and cleaning products, pharmaceutical substances (prescription and over-the-counter medications), batteries, fertilizers, adhesives and glues, chemicals and deodorizers.<sup>1</sup>

## HOW WE ARE DOING

Of the approximately 4,200 calls to Minnesota Poison Control from Ramsey County residents every year, about 60 percent are related to pharmaceutical exposures. Approximately 20 percent are related to other household chemicals, with the top three categories of concern being cleaning products, alcohols and pesticides.<sup>2</sup>

While chemical poisoning follows a seasonal pattern (i.e., they increase in the summer and fall, probably due in part to the increased use of pesticides for pest management),<sup>1</sup> the annual rates of hospitalizations and emergency department visits for nonfatal unintentional poisonings in Ramsey County has stayed fairly consistent from 2006-2014, with rates appearing higher for 2015 and 2016.

Children age 4 and under have a higher rate of unintentional nonfatal poisonings than other age groups; fatalities due to unintentional poisonings are less common, and more likely to be seen in young adults and those over 65.<sup>3</sup> The Ramsey County rate of non-fatal unintentional poisonings was 166.8 per 100,000, and the rate of fatal unintentional poisonings was 1.4 in 2016.<sup>4</sup> Both of these rates meet/exceed the Healthy People target.<sup>5</sup>

Ramsey County's household hazardous waste collection program receives an average of 700 tons of potentially poisonous materials from homes annually. More than half of these materials are recycled, nearly 40 percent are reused or otherwise recovered, and less than 0.5 percent are ultimately landfilled.<sup>2</sup> Since 2012, Ramsey County's medicine collection program has removed more than 22 tons of unwanted, unused or expired medicines. Both programs help reduce in-home exposures to poisons.

## BENCHMARK INDICATOR

Healthy People 2020<sup>5</sup>:

1) Prevent an increase in nonfatal poisonings

U.S. Target: 304.8 per 100,000 population

2) Prevent an increase in poisoning deaths among all persons

U.S. Target: 13.2 deaths per 100,000 population

## RISK FACTORS

Young children are especially vulnerable to chemical poisoning, because childhood is a time of rapid growth and development, children have increased exposures compared to adults, and because children often put things they can see and reach into their mouths.

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

The following household items are accepted for free at Ramsey County hazardous

## Information to note

- 20% of the calls that Minnesota Poison Control receives each year from Ramsey County residents are related to household chemical exposures; 60% are related to pharmaceutical exposures.
- Children age 4 and under have a higher rate of poisonings than other age groups.
- Ramsey County collects 700 tons of potentially poisonous materials from homes annually, with more than 90% of it being reused, recycled or otherwise recovered.

<sup>1</sup> Poison Info. Health Resources & Services Administration Web site. <https://poisonhelp.hrsa.gov/poison-info/index.html>. Accessed September 18, 2017.

<sup>2</sup> Saint Paul – Ramsey County Public Health Department Environmental Health Division.

<sup>3</sup> Pesticide poisoning. Minnesota Department of Health Web site. [https://apps.health.state.mn.us/mndata/pest\\_ed#byregion](https://apps.health.state.mn.us/mndata/pest_ed#byregion). Accessed September 18, 2017.

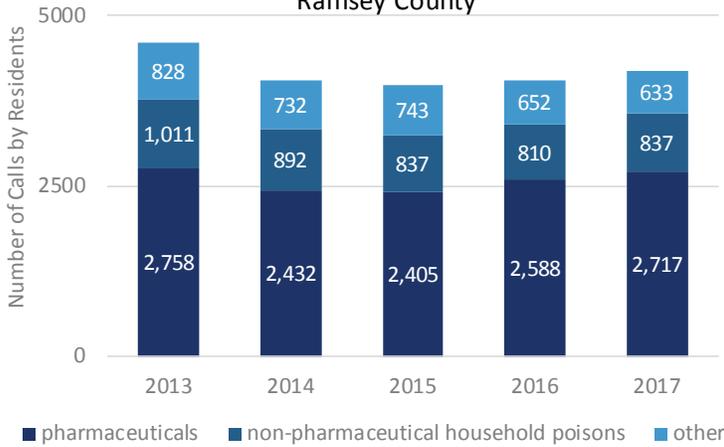
<sup>4</sup> Source: Minnesota Department of Health, MIDAS. Accessed February 24, 2018.

<sup>5</sup> Healthy People 2020. <https://www.healthypeople.gov/2020/topics-objectives/topic/injury-and-violence-prevention/objectives>. Accessed March 14, 2018.

# Injury - Household Poisonings

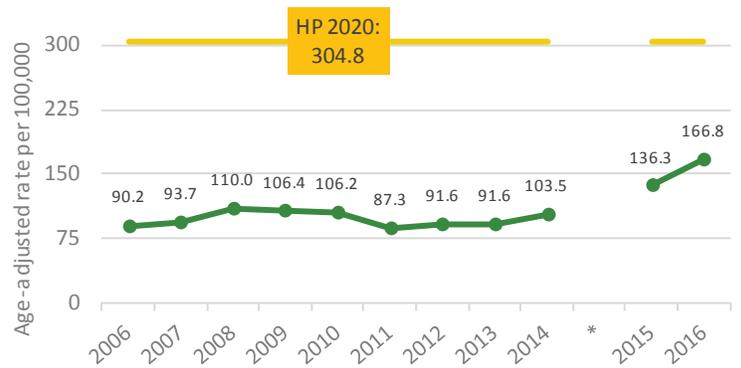
waste collection sites: automotive products, cleaning products, acids and other corrosive products (such as drain opener, oven cleaner, bathroom cleaner, rust remover, etc.), cords and string lights, paint, thinners, solvents, adhesives, sealants, wood stains, lead paint chips, aerosol cans, weed killer, pesticides, fever thermometers, thermostats, fluorescent lights, rechargeable and button batteries, pool chemicals, propane tanks and gas cylinders. In 2016 and 2017, the county's household hazardous waste sites logged over 28,000 visits per year. Through its medicine collection program, Ramsey County accepts (at no charge to the resident): prescription medications, over-the-counter pharmaceuticals, vitamins, supplements and pet medicines. From 2012-2017, nearly 25,000 residents have participated in the program.

Calls to Minnesota Poison Control, Ramsey County



Source: Minnesota Poison Control System.<sup>6</sup>

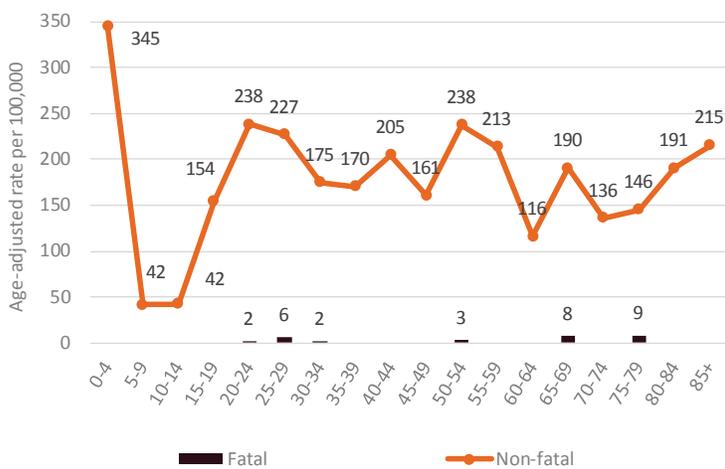
Non-Fatal Unintentional Poisonings, Ramsey County



\* The gap indicates a change in International Classification of Disease coding from ICD9 to ICD10. Rates from 2014 and earlier should not be compared to rates for 2015 and later.

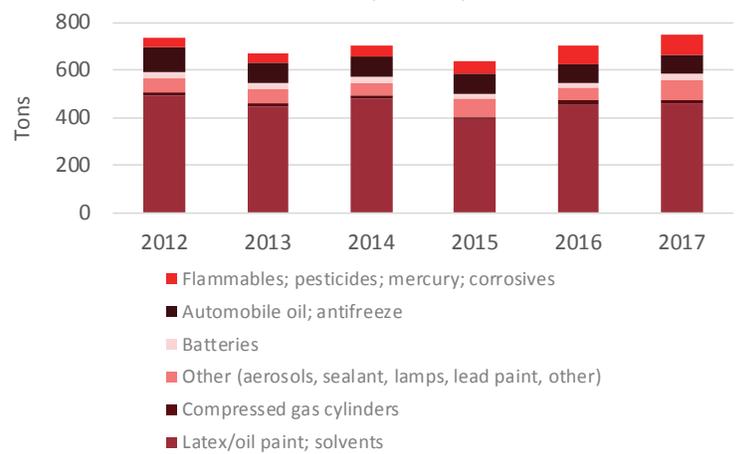
Source: Minnesota Department of Health.<sup>7</sup>

Poisonings by Age Group, Ramsey County, 2016



Source: Minnesota Department of Health.<sup>7</sup>

Household Hazardous Waste Collected, Ramsey County



Source: Saint Paul – Ramsey County Public Health Environmental Health Division

<sup>6</sup> Minnesota Poison Control System

<sup>7</sup> Minnesota Department of Health, MIDAS. Accessed February 24, 2018.

# Motor Vehicle Injury & Death

## DESCRIPTION

Road traffic injuries and death cause considerable economic losses to individuals, their families, and to communities. These losses arise from the cost of treatment as well as lost productivity for those killed or disabled by their injuries, and for family members who need to take time off work or school to care for the injured.<sup>1</sup> In 2015 on an average day in Minnesota, there were 205 motor vehicle crashes, 82 injuries and one death.<sup>2</sup> The average daily cost to the state was \$4,858,135; a total of \$1,773,219,300 for the year. In 2015, speeding caused the loss of 78 lives, distracted driving caused 74, drunk driving led to 95 and the failure to use a seatbelt caused 91 fatalities on Minnesota roads. Traffic crashes cause deaths and injuries to all ages, but they are the leading cause of death for people 1 to 34 years.<sup>2</sup>

## HOW WE ARE DOING

Over the past decade in Ramsey County, motor vehicle crashes have numbered between 10,822 to 11,654 annually. Between 2011-2015, there were 54,324 motor vehicle crashes (14.6 percent of all MN crashes); which resulted in 75 deaths, 22 of which involved alcohol. Among these fatalities, 12 involved a motorcycle, one of which was alcohol-related. Among the 75 deaths, about half (34) were vehicle occupant fatalities.<sup>3</sup> In 2015, 21.6 percent of all Ramsey County crashes, and 28 percent of all motor vehicle deaths were alcohol-related. Over a five-year period, 3.5 percent of all alcohol-related motor vehicle deaths in Minnesota occurred in Ramsey County.<sup>4</sup> In 2016, the age-adjusted Ramsey County rate for non-fatal motor vehicle crash-related injuries was 439.6 per 100,000 population<sup>5</sup> and the rate of motor vehicle crash related deaths was 6.8 per 100,000 population<sup>6</sup>.

## BENCHMARK INDICATOR

Healthy People 2020<sup>7</sup>: Reduce non-fatal motor-vehicle crash-related injuries.

U.S. Target: 694.3 per 100,000 population.

Health People 2020: Reduce motor-vehicle crash-related deaths.

U.S. Target: 12.4 per 100,000 population.

## DISPARITIES

There are disparities related to gender, race and age. The lowest motor vehicle crash death rate was among youth under 18 years compared to the highest rate among adults 18-44 years.<sup>3</sup> Drivers 18-24 years had the highest rate of nonfatal crashes in 2015.<sup>2</sup> Drivers 15-19 were most likely to have a multiple-vehicle accident caused by driver inattention and distraction. The most common age group to cause a crash due to illegal and unsafe speeds were those ages 20-34.<sup>4</sup> Racial /ethnic disparities are also evident. The lowest rate of motor vehicle crash deaths in 2016 was among Asians, the highest rate was among American Indians. Females have a crash death rate of 6.7 per 100,000 compared to a rate of 16.9 for men. In Minnesota, males had a higher mortality rate due to alcohol-impaired driving than females (3.2 per 100,000 population versus 1.2 for females).<sup>8</sup>  
(continued on next page)

## Information to note

- Over the past decade in Ramsey County, motor vehicle crashes have numbered between 10,822 to 11,654 annually.
- There are significant disparities related to race, gender and age for motor vehicle crash deaths.

<sup>1</sup> Road Traffic Injuries Fact Sheet. World Health Organization. <http://www.who.int/news-room/fact-sheets/detail/road-traffic-injuries>. Published February 19, 2018. Accessed July 2018.

<sup>2</sup> Minnesota motor vehicle crash facts 2015. Minnesota Department of Public Safety. <https://dps.mn.gov/divisions/ots/reports-statistics/Documents/2015-crash-facts.pdf>. Accessed July 2018.

<sup>3</sup> 2011-2015 Minnesota crash statistics by county. Minnesota Department of Public Safety. <https://dps.mn.gov/divisions/ots/reports-statistics/Documents/stats-by-county-2011-2015.pdf>. Published June 2016. Accessed July 2018.

<sup>4</sup> 2013-2015 Minnesota traffic fatalities and severe Injuries by county and seat-belt use. Minnesota Department of Public Safety. <https://dps.mn.gov/divisions/ots/reports-statistics/Documents/seat-belts-fact-sheet-2013-2015.pdf>. Published June 2016. Accessed July 2018.

<sup>5</sup> Minnesota Injury Data Access System. Minnesota Department of Health. <http://www.health.state.mn.us/injury/midas/injury/index.cfm>. Accessed October 2018.

<sup>6</sup> CDC Wonder. Centers for Disease Control. <https://wonder.cdc.gov/>. Accessed October 2018.

<sup>7</sup> Injury and Violence Prevention. Healthy People 2020. <https://www.healthypeople.gov/2020/topics-objectives/topic/injury-and-violence-prevention/objectives>. Accessed July 2018.

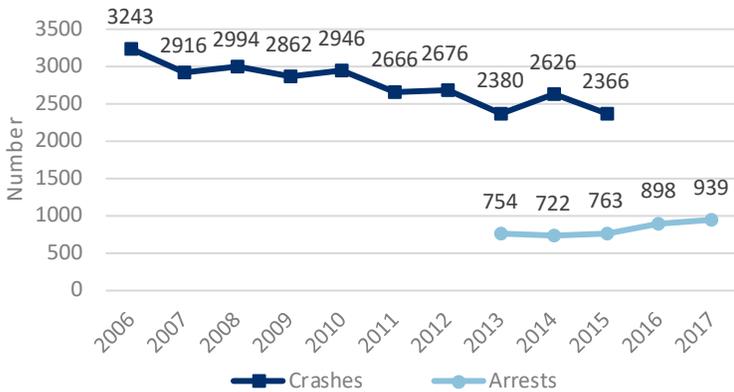
<sup>8</sup> Sobering Facts: Drunk Driving in Minnesota. Centers for Disease Control and Prevention. [https://www.cdc.gov/motorvehiclesafety/pdf/impaired\\_driving/Drunk\\_Driving\\_in\\_MN.pdf](https://www.cdc.gov/motorvehiclesafety/pdf/impaired_driving/Drunk_Driving_in_MN.pdf). Updated December 2014. Accessed July 2018.

## RISK FACTORS

The World Health Organization (WHO) identifies five primary risk factors for motor vehicle crashes: speed, driving under the influence of alcohol, and inadequate use of helmets, seat belts, and child restraints. Another factor that significantly increases the risk of a crash is distracted driving, which may include: using electronic devices while driving for activities such as calling, texting, watching video, and searching the internet.<sup>9</sup> Binge drinkers (men who consume more than five or more drinks, or women who drink four or more drinks in two hours) make up a majority of drunk-drivers, and have a higher chance of getting behind the wheel when over the legal limit.<sup>10</sup>

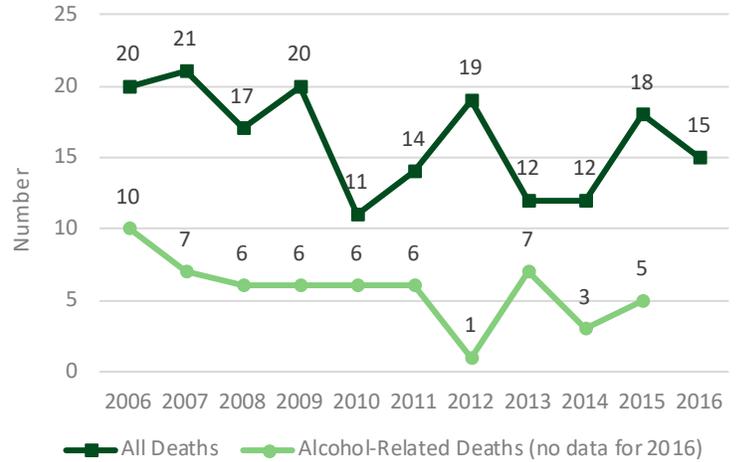
## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

DWI Incidents Over Time\*, Ramsey County



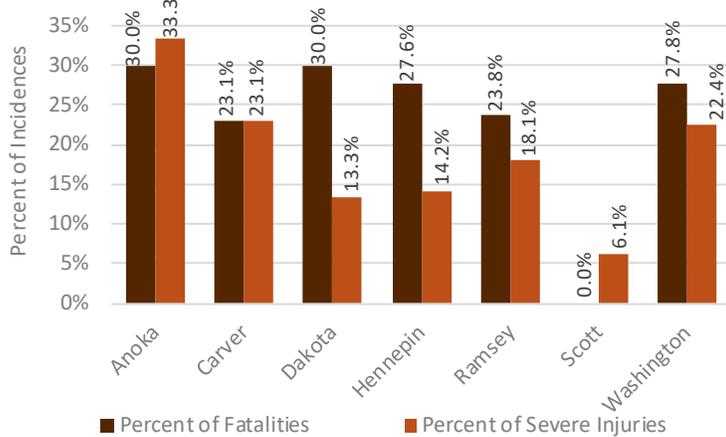
\* Most recent detailed county-level data is available through 2015.  
Sources: Minnesota Department of Public Safety Crash Facts and Uniform Crime Reports.<sup>11</sup>

Motor Vehicle Deaths Over Time, Ramsey County



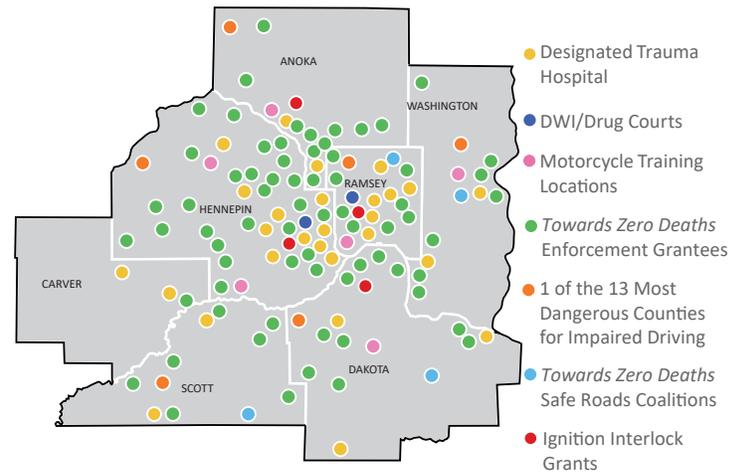
Source: Minnesota Department of Public Safety.<sup>11</sup>

Motor Vehicle Deaths and Severe Injuries Due to Failure to Use Seatbelt, 2013-2015



Source: MN Department of Public Safety.<sup>12</sup>

Traffic Safety Initiatives, 7-County Metro, as of March, 2018



Source: Towards Zero Deaths Minnesota.<sup>13</sup>

<sup>9</sup> Road Traffic Injuries Fact Sheet. World Health Organization. <http://www.who.int/news-room/fact-sheets/detail/road-traffic-injuries>. Published February 19, 2018. Accessed July 2018.

<sup>10</sup> Fact Sheets- Binge Drinking. Centers for Disease Control and Prevention. <https://www.cdc.gov/alcohol/fact-sheets/binge-drinking.htm>. Updated May 10, 2018. Accessed July 2018.

<sup>11</sup> Source: Minnesota Department of Public Safety. <https://dps.mn.gov/divisions/ots/reports-statistics/Documents/crash-facts-summary-2016.pdf>. Accessed July 2018.

<sup>12</sup> Source: 2013-2015 Minnesota Traffic Fatalities and Severe Injuries by County and Seat-Belt Use. MN Department of Public Safety Website. <https://dps.mn.gov/divisions/ots/reports-statistics/Documents/seat-belts-fact-sheet-2013-2015.pdf>. Accessed February 6, 2018.

<sup>13</sup> Source: Towards Zero Deaths Minnesota. [www.MinnesotaTZD.org/initiatives](http://www.MinnesotaTZD.org/initiatives). Accessed July 2018.

## DESCRIPTION

An injury that occurs when someone purposely hurts him or herself is a self-harm or self-inflicted injury; a behavior that indicates a lack of coping skills.<sup>1</sup> Several illnesses are associated with it, including depression, eating disorders, anxiety or posttraumatic distress disorder. Self-harm occurs most often during the teenage and young adult years, though it can also happen later in life.<sup>2</sup> When a person is not sure how to deal with emotions, or learned as a child to hide emotions, self-harm may feel like a release. A person who self-harms usually does not mean to kill himself or herself, but they are at higher risk of attempting suicide if they do not get help. Some people may engage in self-harm a few times and then stop. Others engage in it more often and have trouble stopping. A recent national analysis of Medicaid data found that adults treated for deliberate self-harm were 37.2 times more likely to die by suicide within 12 months than other adults.<sup>3</sup> In adolescents, nonfatal self-harm is a common reason for hospital presentation and also occurs frequently in the community without coming to clinical attention.<sup>2</sup>

## HOW WE ARE DOING

In both 2013 and 2016, 17 percent of Ramsey County students reported purposely hurting themselves in the past year; most were 14-year-old females who self-identified as Asian.<sup>4</sup> In Ramsey County, self-inflicted injuries such as cutting, burning and overdose, are the second leading cause of emergency department (ED) visits and hospitalizations due to injury for children. Each year, over 100 Ramsey County children 10 to 14 and over 200 children 15 to 19 visit an ED or are hospitalized for self-inflicted injuries. Ramsey County's self-inflicted injury ED visit rate in 2015 (181/100,000 population) does not meet the Healthy People 2020 objective. Comparing 2014 hospital visits to 2015 visits does show slight movement in the right direction for several age groups.<sup>5</sup>

## BENCHMARK INDICATOR

Healthy People 2020 Goal: Reduce the number of hospital emergency department visits for nonfatal intentional self-harm injuries.  
U.S. Target: 112.4 per 100,000 population.<sup>6</sup>

## DISPARITIES

A greater proportion of hospital visits for self-inflicted injury occur among females, teens and young adults. Female students in Ramsey County were about 2.5 times more likely to report self-harm than male students. Students of color were 1.3 times more likely than white students to report intentionally injuring themselves.<sup>4</sup>

## RISK FACTORS

Those most at risk for self-harm are people who have experienced trauma, neglect or abuse and may be impacted by many social, personal, economic, biological and environmental factors.<sup>1</sup>

## WHAT RAMSEY COUNTY GOVERNMENT IS DOING

Early diagnosis and treatment can decrease the disease burden of mental health disorders

## Information to note

- A person who self-harms usually does not mean to kill himself or herself, but they are at higher risk of attempting suicide if they do not get help.
- Hospital visits for non-fatal self-inflicted injuries among Ramsey County residents increased 49% between 2010 - 2015.
- Ramsey County youth ages 10-14 have the highest rate of self-inflicted injury in the 7-county metro area.

<sup>1</sup>Self-Harm. National Alliance on Mental Illness. <https://www.nami.org/learn-more/mental-health-conditions/related-conditions/self-harm/>. Accessed May 7, 2018.

<sup>2</sup>Sulyman N, Kim M, Rampa S, et al. Self-inflicted injuries among children in United States-Estimates from a nationwide emergency department sample. PLoS ONE. 2013. <http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0069874>. Published July 18, 2013. Accessed August 8, 2017.

<sup>3</sup>Olfson M, Wall M, Wang S, et al. Suicide following deliberate self-harm. The American Journal of Psychiatry. 2017;174(8):765-774. <https://ajp.psychiatryonline.org/doi/10.1176/appi.ajp.2017.16111288>. Published March 21, 2017. Accessed May 9, 2018

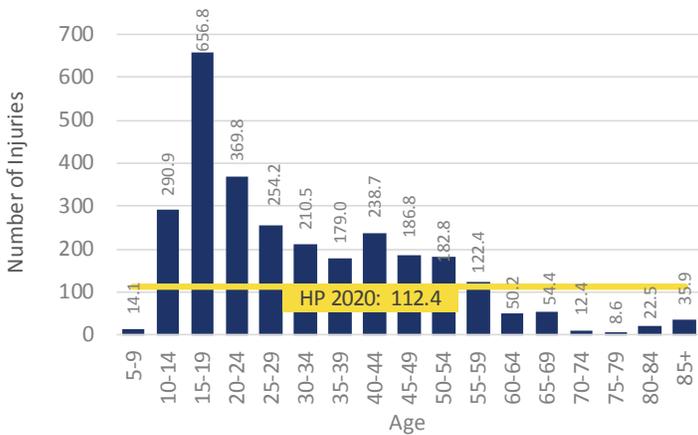
<sup>4</sup>Minnesota Student Survey. Saint Paul – Ramsey County Public Health data set.

<sup>5</sup>Minnesota Department of Health. MIDAS. <http://www.health.state.mn.us/injury/midas/injury/index.cfm>. Accessed May 7, 2018.

<sup>6</sup>Reduce nonfatal intentional self-harm injuries. Healthy People.gov. [https://www.healthypeople.gov/node/4787/data\\_details](https://www.healthypeople.gov/node/4787/data_details). Accessed May 7, 2018.

that contribute to self-inflicted injury as well as associated chronic diseases. Assessing and addressing mental health remains important to ensure that all Ramsey County residents lead longer, healthier lives. In 2018, 13 of the largest statewide health systems providing coverage for 80 percent of MN patients, came together to address major health issues in an effort called the Minnesota Health Collaborative. Together they will tackle major health topics, starting with mental health. The work will focus on how to better initiate care for those who present in acute crisis in EDs and can face long delays in accessing inpatient or community-based care. Also beginning in 2018, individuals and service providers in Ramsey County, calling from a cell phone, are able to call one number and have their call seamlessly forwarded to the county's mental health crisis team. The crisis team, made up of mental health professionals, can travel to an individual's location and assess the situation, provide stabilization and intervention services, crisis prevention planning, referral to other professionals and follow-up services. The crisis team is available by phone 24 hours a day, seven days a week. Ramsey County also provides urgent care for adult mental health offering walk-in appointments.

Rate of Self-Inflicted Injury\* by Age Group, Ramsey County, 2016



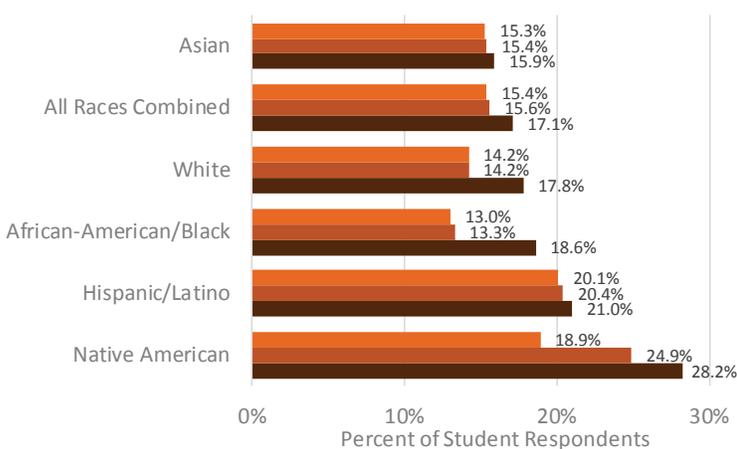
\*non-fatal treated in hospital or emergency department  
Source: Minnesota Department of Health.<sup>7</sup>

9th Grade Students Reporting They Purposefully Injured Themselves Without Wanting to Die in Past Year, Ramsey County



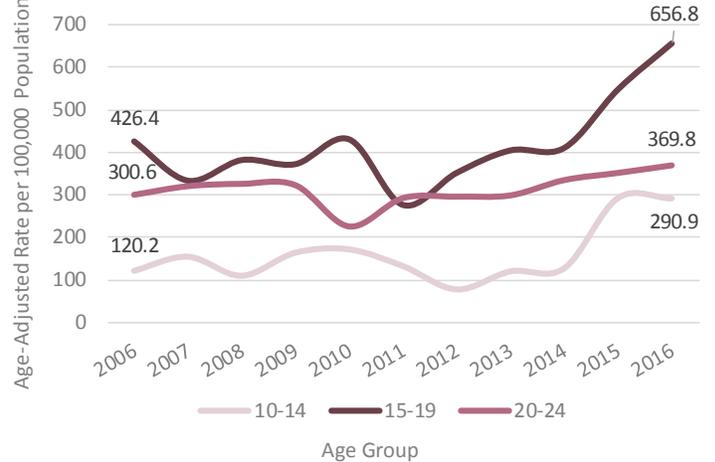
Source: Saint Paul - Ramsey County Public Health Minnesota Student Survey.

Students\* Who Purposefully Hurt or Injured Themselves in Past Year, 2016



\* 8th, 9th, 11th graders  
Source: Saint Paul - Ramsey County Public Health Minnesota Student Survey.

Rate of Self-Inflicted Injury\* Among Youth Over Time, Ramsey County



\*non-fatal treated in hospital or emergency department  
Source: Minnesota Department of Health.<sup>7</sup>

<sup>7</sup> Minnesota Department of Health. MIDAS. <http://www.health.state.mn.us/injury/midas/injury/index.cfm>. Accessed May 7, 2018