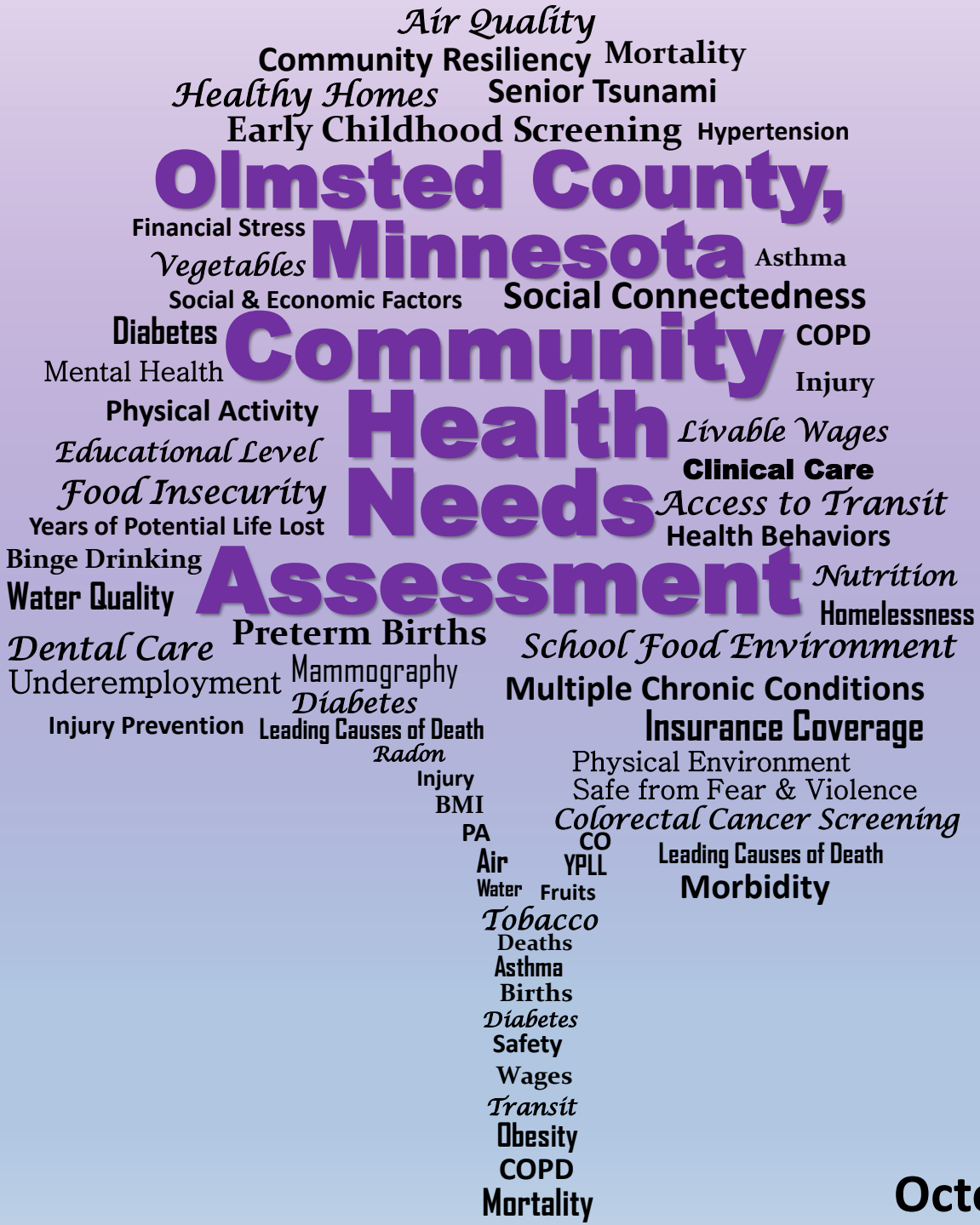


**October 2016**

**A Collaborative Community Effort Led by: Olmsted County Public Health Services, Olmsted Medical Center and Mayo Clinic Rochester**

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We are pleased to release the 2016 Community Health Needs Assessment (CHNA) for Olmsted County. This report is the second joint CHNA between Olmsted County Public Health, Olmsted Medical Center, and Mayo Clinic Rochester, which began in early 2012. This effort included updating key health indicators tailored to our community, and creating and conducting a public survey and listening sessions to understand the community members' concerns and satisfaction with health, safety, and quality of life.

The assessment continues to affirm that the health status of Olmsted County is very positive and compares favorably to our state and nation on many health indicators. It also shows more could be done in certain areas. Several opportunities for improving Olmsted County residents' overall health and wellness were identified, including five priority issues that have a major impact on health: Mental Health, Obesity, Financial Stress/Homelessness, Immunizations, and Injury Prevention. Nearly every Olmsted County resident is touched by one or more of these issues, with our vulnerable populations often bearing a disproportionate burden. It is critical to continue the ongoing work that addresses the many important health issues other than the five priority issues while making the priority health issues the focus of the Community Health Improvement Plan.

We extend our thanks to the many community organizations that contributed to this effort and who provide valuable services every day to help keep our community healthy. In keeping with our community's tradition of strong inter-organizational collaboration, key leaders and organizations in the community have committed to addressing the priority issues identified in this community health assessment. Working together we can have lasting and meaningful effects on the health of our community.

Pete Giesen, M.S.
Director
Olmsted County Public Health

Kathryn Lombardo, M.D.
President
Olmsted Medical Center

John H. Noseworthy, M.D.
President and CEO
Mayo Clinic

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*Note: CHNA Indicator is under further data development.

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# CONTRIBUTING ORGANIZATIONS

The Olmsted County Community Health Needs Assessment is the 'final product' of a collaborative community effort led by Olmsted County Public Health Services, Olmsted Medical Center and Mayo Clinic Rochester. Several community organizations and partnerships have helped further develop and implement the assessment and planning process. Many thanks go to the organizations listed below and to any partnerships or coalition that support these efforts.

| Agency | CCHI | CHNA/CHIP Core Planning Group | CHNA Data Subgroup | CHIP Workgroup Leads | HAPP | Community Health Integration Specialist Funding Agency |
|---|---|---|---|---|---|---|
| Channel One Food Bank | | | | X | X | |
| Family Services Rochester | | | X | | X | |
| Mayo Clinic Rochester | X | X | X | X | X | X |
| National Alliance of Mental Illness (NAMI) of SE MN | | | | X | X | |
| Office of Community Engagement in Research, Mayo Clinic Rochester | | X | | | X | |
| Olmsted County Community Services | X | | X | X | X | |
| Olmsted County Public Health Services | X | X | X | X | X | X |
| Olmsted Medical Center | X | X | X | X | X | X |
| Rochester Area Foundation | X | | | | X | X |
| Rochester Epidemiology Project, Mayo Clinic | | | X | | X | |
| Rochester Area Y | | | | X | X | |
| United Way of Olmsted County | X | X | X | | X | X |

CCHI – Coalition of Community Health Integration
CHNA – Community Health Needs Assessment
CHIP – Community Health Improvement Plan
HAPP – Health Assessment and Planning Partnership

*Refer to the Supplemental Document, Appendix A for a full list of organizations involved in coalition or partnership.*

# EXECUTIVE SUMMARY

## A Collaborative Community Effort

Olmsted County Public Health Services (OCPHS), Olmsted Medical Center (OMC), and Mayo Clinic Rochester have a strong, symbiotic relationship and have collaborated with each other, and other community partners, for many years to serve health needs in Olmsted County, Minnesota. In early 2012, these organizations began planning for a joint, triennial health assessment and planning process - first due to state and federal requirements, but ultimately concluding one joint process was the best strategy and asset for the community going forward. Over the past three years - Cycle II - the community of Olmsted County has shown an even stronger investment and engagement throughout the process by the development of the Health Assessment and Planning Partnership (HAPP).3 There are multiple community organizations that contribute to the collaborative effort and who provide valuable services every day to keep our community healthy!

## Framework and Format

The Community Health Needs Assessment (CHNA) framework is based on the County Health Rankings model where health indicators are categorized into two broad sections - health outcomes and health factors.

The consistent format is intended to serve as a snapshot of the issue (current data) and also summarize the relevance of the indicator, current community perception, key work being done (or gaps in the community) regarding the issue, and the potential areas for greatest opportunity.

## Health Indicators

A systematic process of reviewing and identifying local indicators was conducted to populate the framework. This process included seeking input for potential indicators that were either missing from the 2016 CHNA or were emerging indicators in Olmsted County from the:

1. 2013 CHNA prioritization process participants
2. CHNA Data Subgroup
3. CHNA/CHIP Core Planning Group
4. Public Health Services Advisory Board
5. Health Assessment and Planning Partnership

The CHNA Data Subgroup then reviewed and researched current and additional indicators to determine the best indicators to describe the current health and needs of Olmsted County residents.

After an 18-month long process of reviewing indicator titles, definition metrics and data sources, the Data Subgroup finalized the list to include the 35 current 2016 CHNA indicators. *Several indicators are currently requiring further data development.*

## Data Sources

Numerous data sources were used in the CHNA. These sources included both quantitative and qualitative data approaches to ensure the broadest segment of Olmsted County was heard. Data sources included, but were not limited to: Minnesota Department of Health, Center for Health Statistics, Minnesota Student Survey; Olmsted County CHNA 2015 Survey; Olmsted County Listening Sessions; and the Rochester Epidemiology Project. The 2015 Olmsted County CHNA Survey was a community survey conducted to gain valuable information on local health behaviors and beliefs. While the community survey provided key information for a large segment of the population, the findings did not tell the full story of the community's health concerns, specifically within minority groups and hard-to-reach populations. As a result, community listening sessions were conducted with members of various under-represented groups, including: African Americans; Chicanos and Latin Americans; lesbian, gay, bi-sexual, transgender, queer and inter-sexed; Native Americans; Somalian; Sudanese; and youth, ages 12 to 18. Additionally, University of Minnesota Rochester's Community Co-Lab developed and implemented an assessment process for young adults ages 18 to 24, another hard-to-reach population. *Refer to Supplemental Document, Appendix K for a full list of data sources.*

## Prioritization Process

After data was collected on each health indictor, a process to prioritize the indicators was refined. Each health indicator was scored on objective (population affected, trend, and premature death) and subjective (community perception and ability to impact) factors. Objective scores were predetermined and approved through the CHNA Data Subgroup, while subjective scores were gathered through eleven separate prioritization sessions.

The results from each of the eleven prioritization sessions were then compiled with the objective scores to determine an overall numerical ranking of the health indicators. In order to identify a manageable number of issues that could be addressed in the Community Health Improvement Plan, the top five community health priorities were identified.

## Community Health Improvement Plan

The currently identified priorities will be further assessed in the form of data profiles. These profiles will include deeper data dives to determine if further local associations, correlations or disparities exist, along with community conversations that will heighten the community's perception regarding the five community health priorities. Additionally, efforts will continue to enhance community capacity and engagement to support CHIP strategies, activities and initiatives.

*Refer to Supplemental Document, Appendices B - H for the CHNA timeline, full methodology and additional documents related to community listening sessions, prioritization process, data indicators, community survey and University of Minnesota Rochester Community Collaboratory.*

# Olmsted County, Minnesota
# Community Health Needs Assessment
# 2016

## INJURY PREVENTION

**20%** of OC youth and adolescents do not always wear a seatbelt while driving or riding in the front seat

**50%** of OC youth and adolescents read incoming texts or e-mails and **43%** send texts or e-mails while driving

## IMMUNIZATIONS

**18%** of OC children ages 24-35 months are not fully vaccinated with the recommended immunization series

**44%** of OC residents are not vaccinated against seasonal influenza

## OVERWEIGHT/ OBESITY

**41%** of OC adults are overweight

**28%** of OC adults are obese

**18%** OC youth and adolescents are overweight

## MENTAL HEALTH

**7%** of OC youth and adolescents have been diagnosed with depression

**16%** of OC adults have been diagnosed with depression

## FINANCIAL STRESS

**21%** of OC homeowners and **46%** of renters are paying over 30% of their income for housing

**29%** of OC adults are worried or stressed about having enough money to pay their bills

## TOP 5 COMMUNITY HEALTH PRIORITIES

A Collaborative Community Effort Led by: Olmsted County Public Health Services, Olmsted Medical Center and Mayo Clinic Rochester

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# CONTINUOUS IMPROVEMENT

A focus of the community collaboration has been to develop a continuous, systematic process. Much of the work over the past three years was done through a continuous improvement lens, which has resulted in an improved assessment and planning process. Work has focused on: improving processes, enhancing and forming partnerships, coordination and structure, and overall enhancements to the assessment.

## Improved Processes

After the 2013 CHNA, a lot of work was done to improve the overall process for the next CHNA. This stemmed specifically from the Data Subgroup, who proactively planned activities for the entire Cycle II process. *Refer to Supplemental Document, Appendix C for the full methodology, which includes the Data Subgroup Timeline.* A major change for the assessment process was the administration of the community survey. In 2013 (Cycle I), the community survey was administered via telephone; for Cycle II, the surveys were administered via postal mail. Additionally, learning from the 2013 assessment that not all demographics of our county were well represented by survey respondents, listening sessions were proactively scheduled to learn more about health issues from residents whose opinions were not captured from the survey.

The prioritization framework also went under major changes including refining the factors each indicator was rated on, to expanding the number of prioritization sessions from four to eleven, which also included a general community session. These improvements ensured that more voices were being heard, especially from the general community.

## Partnerships Formed and Enhanced

After the 2013 CHNA was published, the Health Assessment and Planning Partnership (HAPP) was formed to bring together organizations and individuals from the community to begin work on the Community Health Improvement Plan (CHIP). This partnership continues to grow, bringing more than thirty organizations together on a quarterly basis to discuss and further inform the community's health assessment and planning process. From HAPP, workgroups have been strengthened and newly formed connections have made it possible to share the assessment and planning process with more community members.

## Coordination and Structure

Joint funding by five community organizations provided the opportunity to hire a Community Health Integration Specialist (CHI specialist) to bring more structure, support and clarity to the entire health assessment and planning process. This has allowed for a more coordinated effort between partners and has provided a dedicated person to work on all CHNA and CHIP efforts full-time.


## Enhancements to the Assessment Document

Continuing with the continuous improvement lens, several enhancements to the CHNA document were made. Input and feedback gathered from the CHNA Data Subgroup, Core Planning Group and general community allowed for several refinements and improvements.

Enhancements include brand new sections, as well as an overhaul to the indicator format. Focus was placed on:

- At a Glance: A quick summary describing the high level facts and figures found in the CHNA, emphasizing community health priorities and 'what we are doing well'
- CHIP Workgroup Accomplishments: A description of the early accomplishments made by the CHIP Workgroups
- Community Perception: A portrayal of how the community perceives health outcomes and health factors
- Indicator Format: See 'Indicator Format' on pages 21-22

# ACCOMPLISHMENTS OF CHIP WORKGROUPS

After dissemination of the 2013 Community Health Needs Assessment and community priorities, an assessment and planning community meeting was held to launch the next steps of the process. The first step was to identify workgroup leads at the organization level for every priority. Workgroup leads, along with other pertinent individuals, partners and community organizations, met through 2014 to develop broad community strategies. In 2015, with workgroup leads and strategies identified, five community workgroups were formed. From November 2015 to February 2016, a consultant was made available to assist the workgroups with infrastructure development and implementation The information below provides an overview of the progress each workgroup has made from January 2015 to June 2016. *For further information, refer to Olmsted County's website to view the 2015 - 2017 Community Health Improvement Plan.*

## Obesity

In April 2015, the Obesity Workgroup leads organized and held a forum to learn from the community about current efforts, barriers and gaps, along with ideas to address the gaps in regard to obesity prevention. The forum was also used to identify additional members for the Obesity Workgroup. The forum was well attended with 64 participants representing different sectors including healthcare, non-profit, government and youth-serving organizations.

After a few workgroup meetings, the Obesity Workgroup decided to merge with the Making it Better (MIB) Network, a network with similar goals, to leverage resources and stakeholders. Joining MIB also allowed the workgroup members to increase from seventeen to over thirty members and expose workgroup efforts to over 300 community members and organizations. Meetings provide information about initiatives in the community, as well as opportunities to learn new skills. One of the goals of MIB is to form action committees that will carry out strategies to reduce and prevent obesity.

In early 2016, the workgroup leads, along with the steering committee for MIB, set out to gather feedback on how to make improvements and to assess if the network is ready to move to action committees. Results from this feedback led to prioritizing the need for action through an active coalition and the creation of the community health forums.

## Mental Health

Prior to the workgroup forming, two mental health community forums were held to gain a better understanding of current barriers and get feedback on what aspects of mental health should be looked at by the Mental Health Workgroup. The workgroup had its first meeting in July 2015. The workgroup meets on a monthly basis and consists of twenty-two community members representing various sectors including healthcare, government and non-profits. The workgroup had early success in adopting the mental health matrix, four quadrants based on continua of mental health and mental illness, to provide structure and focus to the group. (The first continuum from good to poor mental health, second continuum from no diagnosed mental illness to serious and persistent mental illness). This process also included plotting current, existing services in our community and identifying which cohort (quadrant) of people they target/serve. In late 2015, the workgroup began work with a consultant to work on developing a purpose statement and values and set the strategic direction for the workgroup.

In 2016, the Mental Health Workgroup agreed upon *'Every Olmsted County resident has optimal mental health'* as their purpose statement. Additionally, the workgroup began action steps towards achieving their purpose statement.

## Poverty, Financial Stress and Homelessness

In May 2015, the Financial Stress and Homelessness Workgroup met for the first time. During this meeting it was decided to add poverty to the workgroup's scope, thus renaming the group 'Poverty, Financial Stress and Homelessness (POFSH)'. The workgroup identified five overarching strategies: living wage; housing; organization, regulations, policies and integration restrictions; community awareness; and legal status/criminal background. In May 2015, the workgroup held a forum that brought members from different sectors to gather ideas on how to tackle the five strategies and identified obstacles and barriers.

Later in 2015, the workgroup began to work with a consultant on how they were going to tackle the five overarching strategies. It was determined more input from the members of the workgroup and the community was needed in order to move forward. In February 2016, the workgroup hosted a World Café to get more input on the strategies and help determine next steps. Additionally, the workgroup would be structured to support strategy-specific teams to tackle the overarching strategies.

In 2016, the workgroup is focusing on employment issues for people with criminal backgrounds. This group has met several times and is identifying employers to work with. The POFSH Workgroup also held one large group meeting in 2016 that focused on networking and learning about what others are doing in the community around poverty, financial stress and homelessness.

## Vaccine Preventable Diseases

The Vaccine Preventable Diseases Workgroup formed in May 2015 with representation from healthcare, public health, pharmacies, long-term care and schools. In 2015, the workgroup developed two strategies and corresponding objectives that informed a broad work plan. The two strategies are: (1) increase immunization rates; and (2) develop innovative means to address vaccine hesitancy. In addition, the workgroup approved goals to help inform their work.

In 2016, the workgroup agreed to focus on areas of disparity in immunization rates by making this a priority in planning for 2016-2017 school-based immunization clinics.

## Diabetes

During their first few meetings, the Diabetes Workgroup discussed the scope of the workgroup, ranging from diabetes management to screening. The workgroup members, along with two endocrinologists decided the workgroup would do asset map of pharmacies that offer diabetic screenings in the community. The survey was developed; however, due to time constraints and staffing changes, the pharmacy questionnaire wasn't completed.

In the fourth quarter of 2015, the workgroup leads worked with a consultant, who recommended more work be done on the structure and direction of the workgroup. In 2016, through conversations with a consultant and the community health integration specialist, it was decided to merge the Diabetes Workgroup with the Obesity Workgroup to increase membership and awareness to ultimately move to action.

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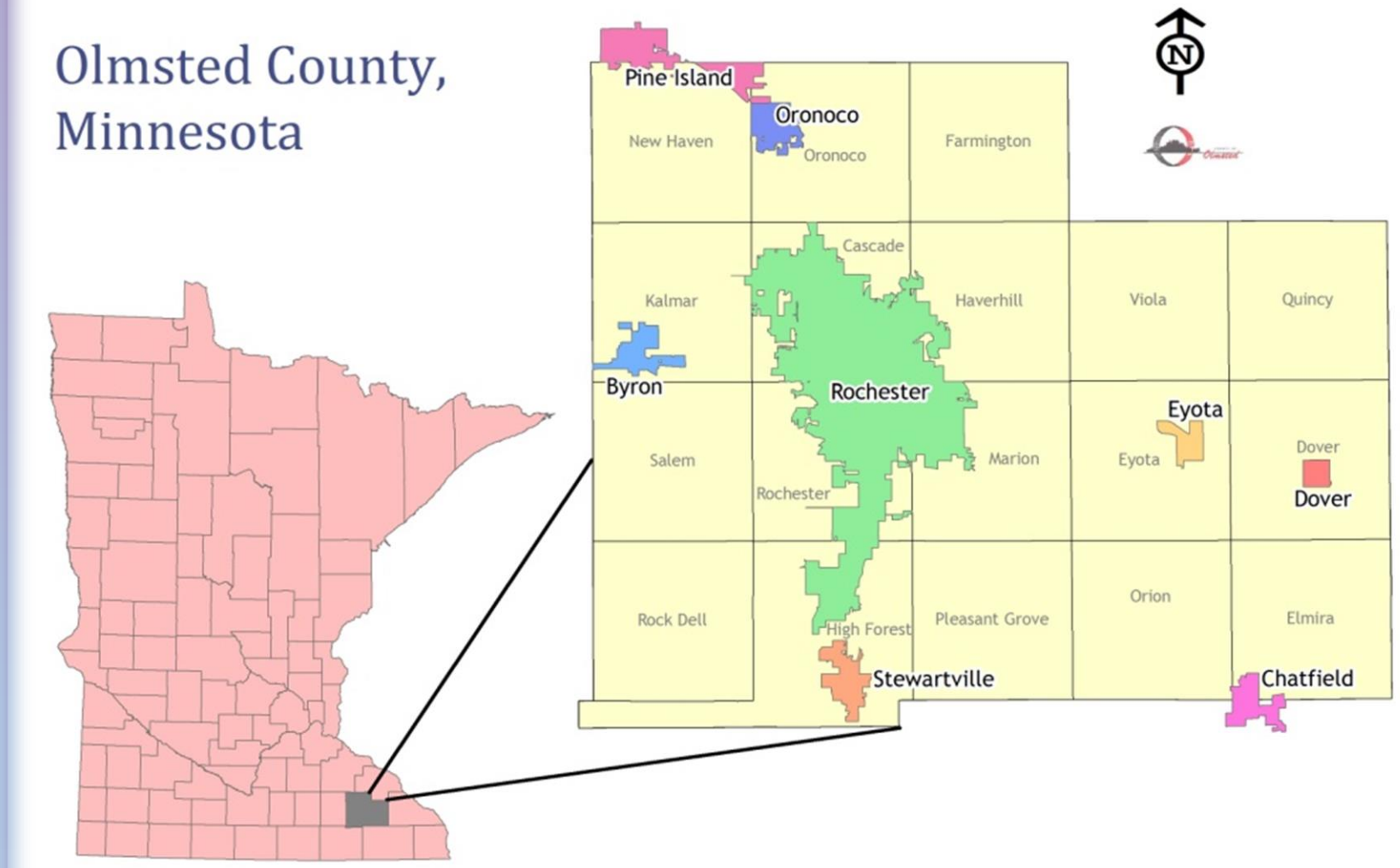
# DEMOGRAPHICS



# DEMOGRAPHICS

Olmsted County is located in the southeastern part of Minnesota, approximately 80 miles southeast of the Minneapolis/St. Paul/Bloomington metropolitan area. Olmsted County has a total area of 655 square miles, of which just over 650 acres are water areas. Olmsted County consists of 18 townships and all are part of eight cities, including the cities of Byron, Eyota, Dover, Oronoco, Rochester, Stewartville, and parts of Chatfield and Pine Island.

Olmsted County is projected to remain one of Minnesota's fastest-growing counties over the next 30 years, while Rochester will be the central city of the fastest-growing metropolitan area in the state. Olmsted County remains the eighth largest county in the state. According to the 2010 census, the population of Olmsted County was 144,248. Seventy-four percent of the county population lives in the city of Rochester, with a 2010 population of 106,769. Rochester, the county seat, is the largest city in Minnesota outside of the Minneapolis/St. Paul/Bloomington metropolitan area. Rochester grew by nearly 25% over the last decade (20,963 people). The surrounding cities range in size from a low of 741 in Dover to a high of 5,916 in Stewartville.

Olmsted County represents 29% of the population of the 11-county southeast Minnesota region. Olmsted County's population has grown by 35.5% since the 1990 census. Olmsted County has 2.25 times the population of the next largest county in the region and continues to grow at a significantly higher rate than other counties in southeastern Minnesota - while Olmsted County grew by 16% per decade for the last twenty years; the remaining balance of the region grew by only 4%.

According to census figures, the median age of Olmsted County residents was 36.3 years in 2010. Residents under age 18 made up 25.2% of the population, while those aged 65 years and older made up 12.6% of the population. Olmsted County's population is 51.1% female - total female population is 73,763; total male population is 70,485. From 2010 to 2014, there were an average of 2,172 births per year.

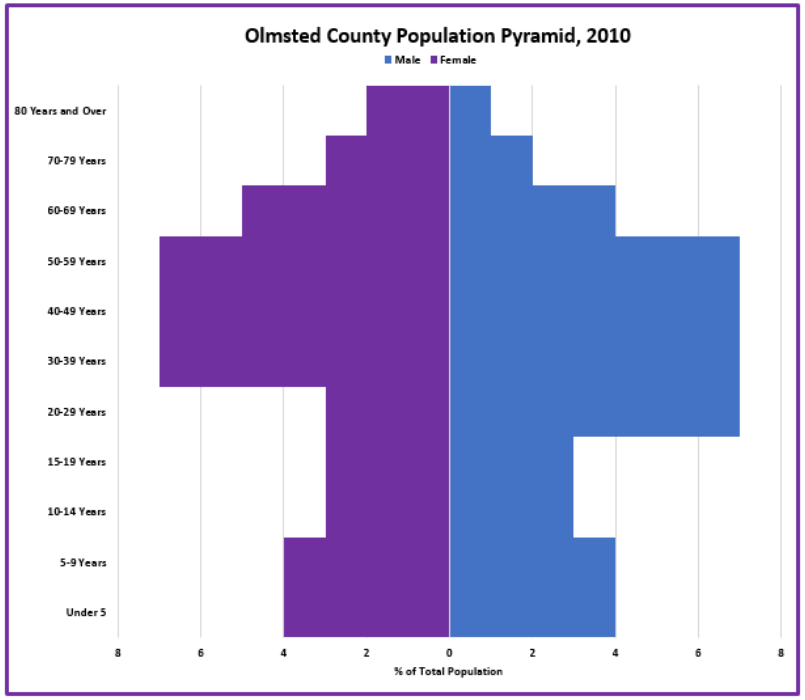
In 2014, Olmsted County's estimated life expectancy was at 82.9 years, on average about four years longer than a typical United States resident, at 78.8 years. From 2011 to 2014, there were an average of 965 deaths per year, with a mortality age-adjusted rate of 561.4 per 100,000 population.

Olmsted County has seen a significant increase in populations of ethnic and racial minorities in recent years. Minorities (all persons other than non-Hispanic whites), now make up almost 17% of Olmsted County's total population. The minority population grew 75% from 2000 to 2010, compared to an 8.8% increase in the non-Hispanic w3hite population. Over the last twenty years, the minority population has increased from 5,290 (1990) to 23,900 (2010) - an increase of four and a half times.

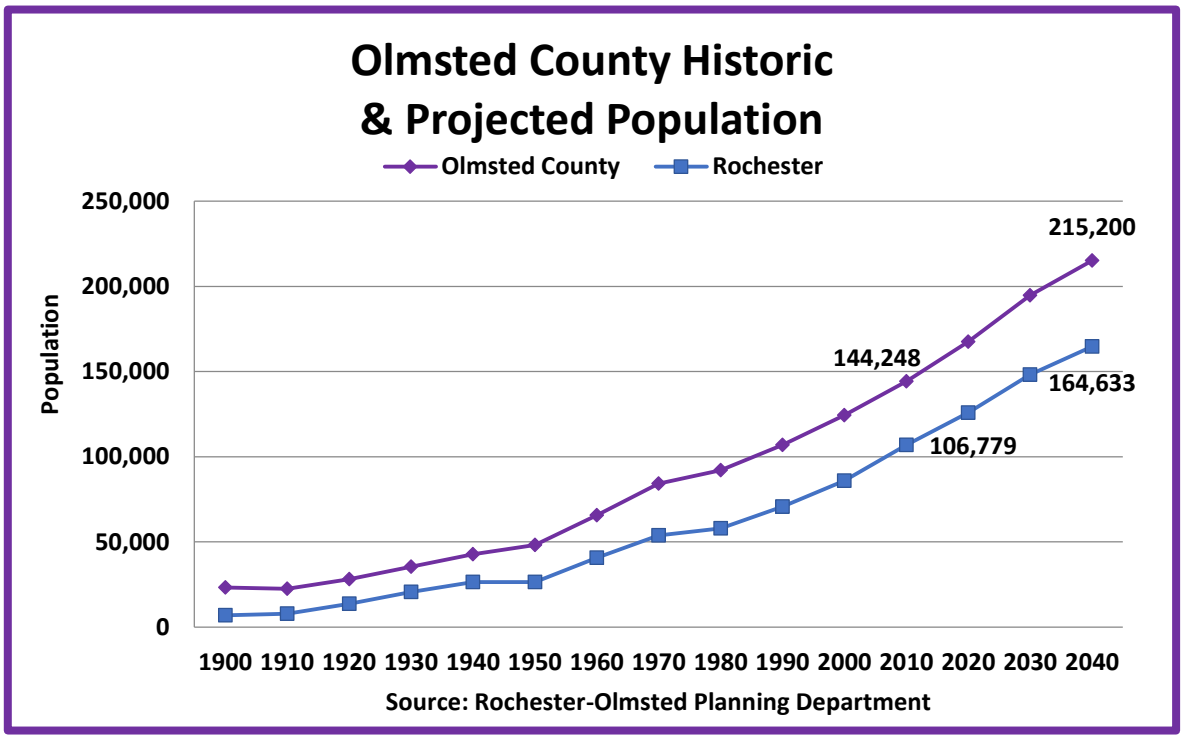
The 2014, the American Community Survey (ACS) reports that 14,563 foreign-born persons reside in Olmsted County. According to the 2014 ACS, 12.4% of people over the age of five speak a language other than English in the home. According to Olmsted County school district data, Somali, Spanish, Cambodian (Khmer), Arabic, Vietnamese, Chinese, Lao, and Bosnian are the most prevalent languages spoken in the home.

Household and per capita incomes in Olmsted County exceed both the state and national averages. According to the 2010-2014 ACS estimates, Olmsted County had a median household income of $67,089, compared to $60,828 for Minnesota and $53,482 for the United States. However, outside the Minneapolis/St. Paul/Bloomington metropolitan area, Olmsted County has the third highest free and reduced lunch enrollment in schools.

Rochester is most notably known as the home of the Mayo Clinic, and thus a medical community. Major employers in Olmsted County include: Mayo Clinic Rochester, IBM, Rochester Public Schools, Olmsted County, Olmsted Medical Center, Walmart & Sams Club, City of Rochester, Hy-Vee, Sunstone Hotel Properties, Charter Communications, Rochester Community and Technical College, Crenlo, Target, Federal Medical Center, and Benchmark Electronics.




Source: Unite States Census




## Race and Ethnicity Makeup of Olmsted County; US Census

| | 1990 | 2000 | 2010 | % 2010 pop | % change '00-'10 | % change '90-'10 |
|---|---|---|---|---|---|---|
| White non-Hispanic/Latino (nH/L) | 101,180 | 110,598 | 120,348 | 83.4% | 8.8% | 18.9% |
| Black or African American (nH/L) | 788 | 3,293 | 6,751 | 4.7% | 105.0% | 756.7% |
| Hispanic or Latino (any race) | 970 | 2,959 | 6,081 | 4.2% | 105.5% | 526.9% |
| American Indian/Alaskan Native (nH/L) | 295 | 286 | 297 | 0.2% | 3.8% | 0.7% |
| Asian (nH/L) | 3,237 | 5,270 | 7,771 | 5.4% | 47.5% | 140.1% |
| Native Hawaiian/Pacific Islander* (nH/L) | | 39 | 57 | 0.0% | 46.2% | |
| Some Other Race* (nH/L) | | 137 | 246 | 0.2% | 79.6% | |
| Two or More Races* (nH/L) | | 1,695 | 2,697 | 1.9% | 59.1% | |
| **Overall Population** | 106,470 | 124,277 | 144,248 | 100.0% | 16.1% | 35.5% |

*NOTE: These categories were not available to respondents in the 1990 Census

# THE HEALTH OF OLMSTED COUNTY AT A GLANCE

The community health needs assessment continues to affirm that the health status of Olmsted County is very positive and compares favorably to our state and nation on many health indicators. However, it also demonstrates that more can be done in certain areas. Several opportunities for improving Olmsted County residents' overall health and well-being were identified, including five community priority issues that have a major impact on health. The 2016 community health priorities are: financial stress, immunizations, injury prevention, mental health and overweight and obesity. Nearly every Olmsted County resident is touched by one or more of these issues.

## What are we are doing well?

The 2016 CHNA data also revealed a number of positive changes or successes maintained over the last three years. Our hope is that these encouraging trends remain and we begin to 'turn the curve' on many health issues that have impacted our community for several decades. Progress and growth has been made across an extensive range of health indicators spanning both health outcomes and health factors.

From the community listening sessions, it was apparent that the community believes the Olmsted County has an abundance of resources; promotion of these resources just needs to be strengthened. Olmsted County continues to have fewer babies born prematurely, low tobacco smoking rates and high insurance coverage, all which add to a greater life expectancy. Additionally, Olmsted County has high household income, education and employment levels which collectively influence overall health.

The data tables on the following page summarize high level facts and figures seen throughout the full CHNA document.

## Mortality

| Leading Causes of Death | |
|---|---|
| Cancer | 23% |
| Heart Disease | 22% |

## Morbidity

| Senior Tsunami | |
|---|---|
| Adults 65+ experienced a fall resulting in seeking medical attention | 6% |
| Adults 65+ prescribed medication in more than five prescription classes | 58% |
| ☆ Overweight and Obesity | |
| Adults who are overweight or obese | 68% |
| Adolescents who are overweight | 18% |
| Diabetes | |
| Residents with diabetes | 13% |
| Multiple Chronic Conditions | |
| Residents living with 2 or more chronic conditions | 28% |
| ☆ Mental Health | |
| Adults who have depression | 16% |
| Adolescents who have depression | 7% |
| Asthma | |
| Residents who have asthma | 6% |
| Hypertension | |
| Residents with hypertension | 18% |
| COPD | |
| Adults, age 50 & older who have COPD | 6% |
| Preterm Birth | |
| Infants born prematurely | 9% |

## Health Behaviors

| Tobacco Use | |
|---|---|
| Adult smoking prevalence | 9% |
| Adults using tobacco products | 13% |
| Adolescents using tobacco products in the past 30 days | 11% |
| Binge Drinking | |
| Binge drinking in adults | 26% |
| Binge drinking in adolescents | 7% |
| Fruit and Vegetable Consumption | |
| Adults not meeting national recommended guidelines | 54% |
| Physical Activity | |
| Adults not meeting national recommended guidelines | 50% |
| ☆ Injury Prevention | |
| Youth & Adolescents that: | |
| • Don't wear seat belts | 20% |
| • Read incoming texts or e-mails while driving | 50% |
| • Send texts or e-mails while driving | 43% |

## Clinical Care

| ☆ Immunizations | |
|---|---|
| Children ages 24-35 months not fully vaccinated | 18% |
| Residents not vaccinated against seasonal influenza | 44% |
| Insurance Coverage | |
| Adults with no dental insurance | 23% |
| Adults with no prescription insurance | 6% |
| Routine Dental Care | |
| Adults who have not seen a dentist in last year | 24% |
| ☆ Diabetes Management | |
| Diabetics did not have at least one HbA1c test in last 6 months | 57% |

## Social and Economic

| Education Level | |
|---|---|
| 4-year graduation rate | 80% |
| ☆ Financial Stress | |
| Paying more than 30% on housing: | |
| • Homeowners | 21% |
| • Renters | 46% |
| Adults feeling financially stressed | 29% |
| Food Insecurity | |
| Residents that are food insecure | 8% |
| Safe from Fear and Violence | |
| Adults who do not feel safe | 16% |
| Early Childhood Screening | |
| Children who did not receive screen by age 3 | 62% |
| Social Connectedness | |
| Residents not living in socially connected neighborhoods | 29% |
| Community Resiliency | |
| Residents that don't believe the community is resilient | 11% |

## Physical Environment

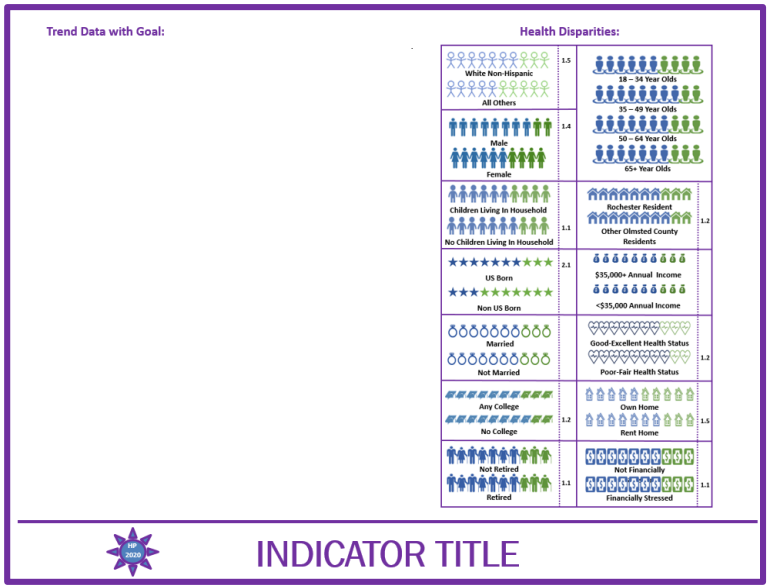
| Healthy Homes | |
|---|---|
| Homes not meeting at least 4 of the 6 Healthy Homes Principles | 19% |
| Air Quality | |
| Days/year unhealthy air (Rochester) | 2 |
| Water Quality | |
| Public water systems not meeting Safe Drinking Water Act Standards (SDWA) | 0% |
| Private wells tested not meeting Safe Drinking Water Act Standards (SDWA) | 29% |

☆ Top Five Community Health Priorities

*Certain indicators are under further data development. These indicators include:

- Years of Potential Life Lost
- Mammography in Women
- Homelessness
- Access to Transit
- School Food Environment
- Colorectal Cancer Screening
- Living Wage/Underemployed

# INDICATOR FORMAT


Olmsted County's Community Health Needs Assessment (CHNA) document encompasses indicators spanning both health outcomes and health factors - indicators include anything from obesity to education level. To keep the CHNA document user friendly and maintain stability, every indicator follows a consistent format and layout. Every CHNA indicator has two full pages devoted to describing the importance of the indicator and showcasing local and current data to reflect the current health of Olmsted County's population.

The following are explanations detailing the CHNA format and layout (and follow the image above):

**Definition**
A description of how the indicator is defined and measured for the current CHNA.

**Data Sources**
Includes both primary and secondary data sources that were used to assist with narrative sections and/or data depiction. *Refer to Supplemental Document, Appendix K for a complete list of all CHNA data sources.*

**Community Health Importance**
A narrative describing the indicator's importance to overall community health.

**What led to this Health Outcome?**
Specifically for health outcome indicators, an explanation of those associated factors that contribute to the health indicator.*

**What does this Health Factor Influence or Impact?**
Specifically for health factor indicators, an explanation of those associated outcomes that the health indicator affects.*

* Note: General health focus, not limited to Olmsted County.

**Community Assets**
A *non-exhaustive* list of organizations or programs within Olmsted County working toward making a positive impact on the indicator.

**Community Perception**
An illustration of how the community has ranked the importance of all CHNA indicators in Olmsted County. This includes two separate rankings of the CHNA indicators by prioritization participants: (1) community perception scale and (2) top health issue. The community perception scale depicts how severe or extreme of a threat or issue each CHNA indicator is perceived by the community. All indicators were placed in quartiles to reflect a slight, moderate, significant or severe/extreme community health issue. The top health issue describes the percentage of prioritization participants subjectively stating they believe the specific indicator should be a top health issue for Olmsted County to work toward improvement and they believe is a top issue impacting Olmsted County residents. *Refer to Supplemental Document, Appendix E for a complete description of the CHNA prioritization process.*

**Area of Greatest Opportunity**
A description of potential approaches to improving the indicator that include emerging, promising and best practices, as well as evidence-based practices.*

**Trend Data with Goal**
The most current, local trend data is presented in narrative, graphs and/or charts. When available, Olmsted County comparisons may be made to Minnesota, the United States and/or Healthy People 2020. In addition to geographic comparisons, some indicators portray difference among race, ethnicity, gender and/or age groups.

**Health Disparities**
Health disparities are a particular type of health difference that is closely linked with social or economic disadvantages. Health disparities adversely affect individuals and groups of people who have systematically experienced greater social and/or economic obstacles to health and/or clean environment based on their racial or ethnic group; religion; socioeconomic status; gender; age; mental health; cognitive, sensory or physical disability; sexual orientation; geographic location; or other characteristic historically linked to discrimination or exclusion.

When available, data is presented to portray local health disparities, specifically in the current CHNA, differences are noted - both graphically and narratively among racial and ethnic, age, gender and socioeconomic groups.

For those CHNA indicators that had the 2015 Olmsted County CHNA Survey as a data source, an infographic is presented with disparity comparisons in 13 different demographic and socioeconomic areas. Each area is represented by ten small images. Each image colored blue indicates 10% of that sub-population meets the definition for the specific indicator. For example, if you are looking at Overweight/Obesity and seven homes are colored blue for home renters, this would equate to 70% of Olmsted County renters are currently overweight or obese. In addition to the colored images, each demographic or socioeconomic area has an area-specific health disparity index. This number demonstrates the magnitude of our local health disparities. For example, home ownership health disparity index equals 1.5 - which is interpreted to mean individuals renting their home in Olmsted County are 1.5 times (or 50%) more overweight or obese than individuals owning their home in Olmsted County. *Refer to Supplemental Document, Appendix I for complete data tables illustrating local health disparities and disparity indexes. Please interpret infographic and indexes with caution due to rounding.*

**Healthy People 2020**
Healthy People 2020 (HP 2020) provides science-based, ten-year national objectives for improving the health of all Americans. The HP 2020 symbol indicates that there is a HP 2020 objective directly or indirectly related to the CHNA indicator. *Refer to Supplemental Document, Appendix J for a list of corresponding HP 2020 objectives.*

* Note: General health focus, not limited to Olmsted County

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# HEALTH OUTCOMES

Health outcome indicators in this assessment represent the overall health of Olmsted County's population ***today***. Health outcomes allow us to assess what residents in the community are dying of and what health conditions residents are currently living with.

Indicators in the health outcomes section are broken down into two subsections: (1) mortality and (2) morbidity.

**Mortality** indicators were reviewed to determine what the leading causes of death in the community were as well as those causes that led to premature deaths. Additionally, life expectancy was assessed to give an approximate measure of how long an individual is estimated to live or their length of life.

**Morbidity** is often termed as the proportion of a specific disease in a geographic location. Morbidity indicators were assessed to determine the prevalence of certain health conditions in the community, with specific attention to chronic conditions.

# COMMUNITY PERCEPTION

## Quotes from Community Listening Sessions

*'My family members have all died at age 50 from the top 5 [CHNA] reasons.'*

*'More information [is needed] on vaccination for adults, more information related to chicken pox and shingles.'*

*'When parents don't bring records, children get over-vaccinated or given too much in one time since concerned they won't come back'*

*'Obesity, look around, children are not exercising and eating right, this can lead to diabetes and heart problems, we need to get involved in our children's lives'*

*'Back home [outside of United States] we use to move around and now we sit a lot.'*

*'Mental health of youth is the top priority.'*

*'... there is a stigma around teens being labeled [mentally ill].'*

*'Mental health issues are still a concern, get thrown in jail and once out people face homelessness; very few people and resources to help people break the cycle'*

*'. . . they need to provide more [mental health] programs for children and teens, types of home care within the mental health.'*

## Perception of Health Outcomes via Community Listening Sessions

The community's perception of health outcomes was assessed through the community listening sessions. *Refer to Supplemental Document, Appendix D for a detailed summary of the listening sessions.*

When asked questions related to **mortality**, many listening session participants revisited the 2013 top five priorities (mental health; obesity; vaccine preventable diseases; diabetes; and financial stress/homelessness). Several participants stated that at least one of the 2013 priorities related directly to the death of a loved one or someone they knew. The biggest take-home message from the discussions related to mortality, linked to access to appropriate and timely treatment.

Discussion on **chronic diseases** centered on cancer, migraines, asthma, diabetes and obesity; with diabetes being in the forefront of the discussion. Several participants felt that obesity prevention should begin with children. The main issues mentioned were:

- Sedentary lifestyle
- Health immigrant syndrome (perception that prior to moving to United States and namely Minnesota, people were healthier)

At the listening sessions, discussions on **infectious disease** centered around awareness, prevention, and management. Many of the participants had awareness of the impacts of tuberculosis, viral hepatitis, and influenza. In sessions with a large group of newcomers and immigrants, hepatitis was mentioned as a concern. The topic of herd immunity with vaccine was highlighted in multiple sessions with awareness of vaccines being needed across the entire lifespan.

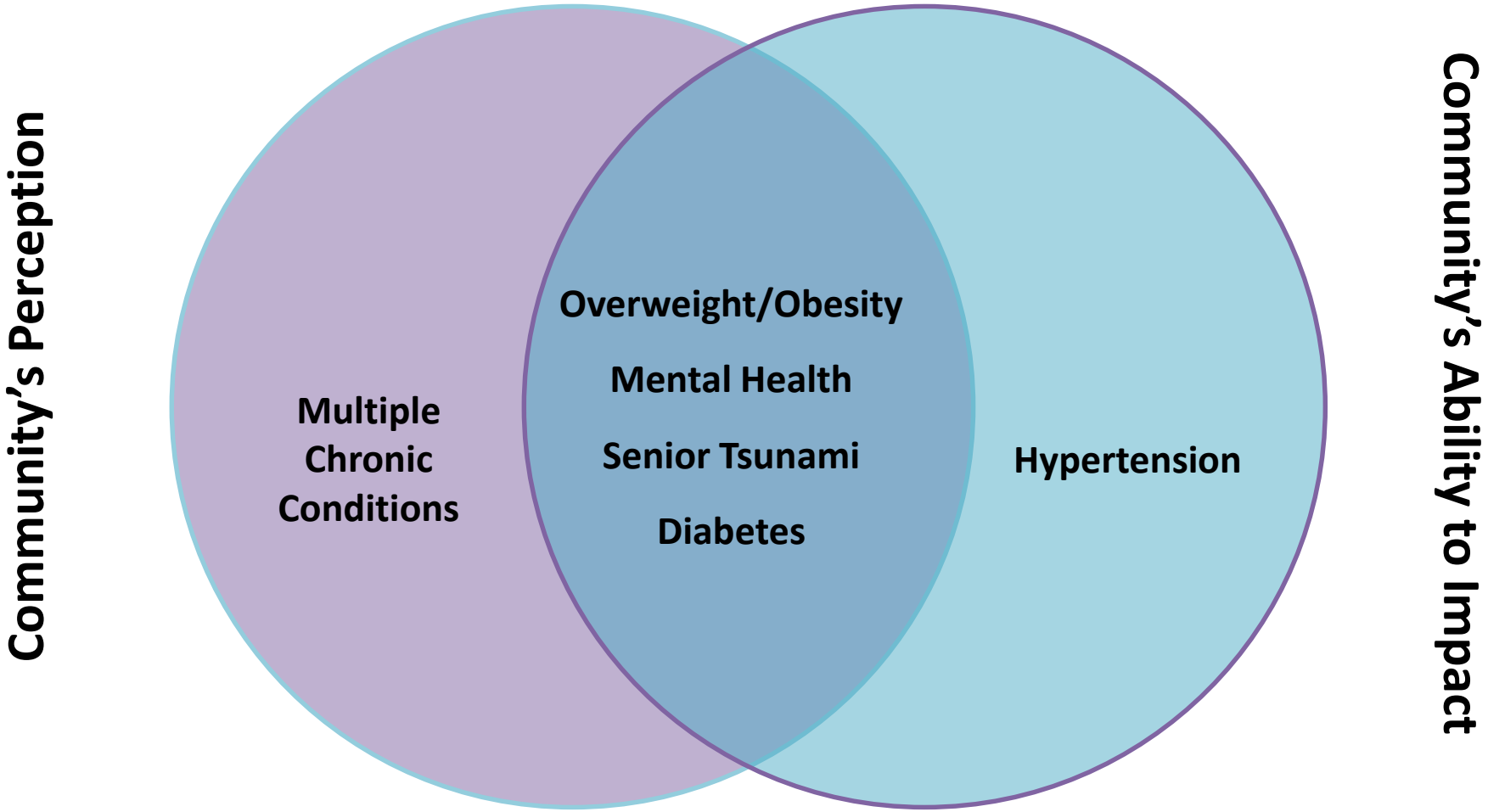
During the community listening sessions, **mental health** was one of the main concerns mentioned by participants, with discussion around several topics, including:

- Access to mental health services
- Lack of information on treatment, screening and services
- Impact of mental and emotional health on those that are homeless or incarcerated
- Youth
- Pervasive development disorders like autism and attention deficit hyperactivity disorder (ADHD)
- Reducing stigma
- Impact on family members
- Stress, depression and anxiety
- Substance use related to depression
- Suicide ideation

## Perception of Health Outcomes via Community Prioritization Sessions

The community's perception of health outcomes was also assessed through the community prioritization sessions. Community prioritization participants were able to provide input regarding (1) the level the public perceives health outcome indicators to be a threat or issue (community perception); and (2) the level or the ability of the community collectively to prevent, reduce or impact the health issue (community's ability to impact).

The chart below depicts the health outcome indicators that came out as the top five health issues, based on the two subjective questions asked during the prioritization process. Indicators that were identified as a top issue in both categories are listed in the middle.




*Refer to Supplemental Document, Appendix E for more information on the prioritization process.*

# COMMUNITY PERCEPTION

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# HEALTH OUTCOMES
# Mortality

Years of Potential Life lost

Leading Causes of Death

# LEADING CAUSES OF DEATH

## Definition

Mortality, or death, is often used as a metric of overall health and well being of a community. It is most useful when separated into categories that can be compared such as mortality by age groups, by age and gender groups, by age, gender and race/ethnicity groups, or by causes of death. For this assessment overall mortality rates are presented as deaths per 100,000 population. Mortality rates are presented by age, gender, and leading causes of death.

## Data Sources

Centers for Disease Control and Prevention, National Vital Statistics System; Healthy People 2020; Minnesota Department of Health, Center for Health Statistics

## Community Health Importance

The overall rate of mortality in a community is of modest importance. A more valuable way to look at mortality rates is to determine if disparities exist among certain subpopulations. Disparities in early deaths or in causes of death by age, race, gender or socioeconomic status may highlight areas of importance to address in improving community conditions or access to specific types of healthcare services.

## What led to this Health Outcome?

Deaths, specifically premature deaths, are caused by different health factors throughout the age spectrum.

## Community Assets

Current community initiatives and organizations working toward decreasing mortality rates and associated health risk behaviors include: Mayo Clinic Rochester; Olmsted County Public Health Services; and Olmsted Medical Center.

## Community Perception

***Leading causes of death was not ranked at the prioritization sessions***

## Area of Greatest Opportunity

Cancer and heart disease continue to be Olmsted County's leading causes of death. Prevention is key - heart disease and cancer are preventable through better use of healthcare resources along with better lifestyle choices (i.e. diets, physical activity, tobacco use).

## Trend Data with Goal

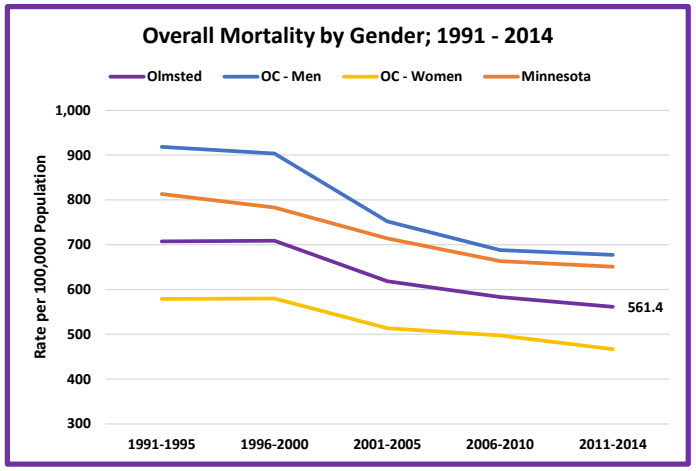
Overall mortality rates continue to decline on a national basis - and this is also apparent at a local level. Olmsted County has a current age-adjusted mortality rate of **561** deaths per 100,000 population; a decrease of approximately 21% since the early 1990s.

Heart disease, cancer, chronic lower respiratory disease, stroke and unintended injuries have been the leading causes of death for many decades, with heart disease being the top cause of death nationwide. At a local level, current data is showing cancer has surpassed heart disease and is now the leading cause of death in Olmsted County and Minnesota.

According to the most recent data available (aggregate 2011-2014), Olmsted County averages approximately 965 deaths per year; cancer **(22.9%)** and heart disease **(21.0%)** account for nearly half of all the deaths across the County.

### Leading Causes of Deaths 2011 - 2014

| Cause of Death | Olmsted County | MN | US |
|---|---|---|---|
| Cancer | 22.9% | 23.5% | 22.7% |
| Heart Disease | 21.0% | 18.5% | 23.5% |
| Unintended Injury | 8.3% | 5.9% | 5.1% |
| Chronic Lower Respiratory Disease | 5.2% | 5.5% | 5.7% |
| Stroke | 4.7% | 5.2% | 5.0% |
| Alzheimer's Disease | 3.7% | 3.7% | 3.4% |
| Pneumonia & Influenza | 1.6% | 1.7% | 2.1% |
| Diabetes | 1.6% | 2.9% | 2.9% |
| Suicide | 1.4% | 1.7% | 1.6% |
| Chronic Liver Disease | 1.0% | 1.2% | 1.4% |
| Nephritis | 0.7% | 1.7% | 1.8% |

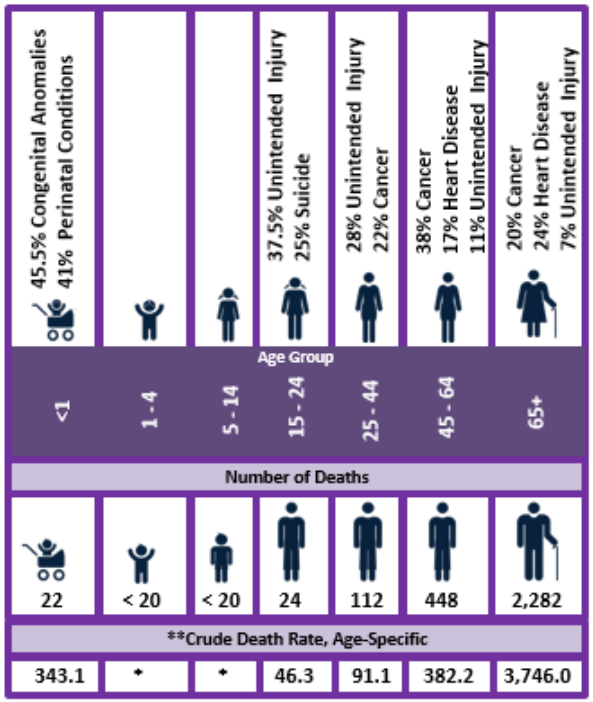



## Health Disparities

Limited local data is available related to health disparities across race and ethnicity groups due to the relatively small number of deaths and overall population in these groups; however, there is an abundance of information based on gender and age groups. Females continue to have a substantially lower death rate than males (466.8 vs. 677.4, age-adjusted).

The leading causes of death among adolescents and young adults continue to be unintentional injuries (i.e. car accidents) and suicides; these two causes attribute to over 60% of all deaths among 15-24 year olds.

### Leading Causes of Death by Age Group 2011 - 2014




*Rates based on 20 or less deaths are not produced

# LEADING CAUSES OF DEATH

# YEARS OF POTENTIAL LIFE LOST

Note: Years of Potential Life Lost is under further data development.

## Definition

Years of potential life lost (YPLL) is a summary measure of premature mortality. It represents the total number of years not lived by people who die before reaching a given age. Deaths among younger people contribute more to the YPLL measure than deaths among older people. For this assessment, YPLL is assessed for anyone dying before the age of 75 (people who die before age 75 are defined as having lost potential years of life) by specific cause of death category.

## Data Sources

Centers for Disease Control and Prevention, National Vital Statistics System; Healthy People 2020; Minnesota Department of Health, Center for Health Statistics; World Health Organization

## Community Health Importance

Life expectancy is often used as a proxy for the community's health status. Longer life expectancy is associated with a healthier community. When compared across various racial/ethnic groups or between genders or across gender by racial/ethnic groups, it can be used as a proxy for health disparities.

Similar assessments can be made using years of potential life lost. In addition, the YPLL can be equated with years of lost productivity.

## What led to this Health Outcome?

There are a variety of factors that influence life expectancy and premature death. These factors include:

- Individual characteristics and health behaviors
- Access to and use of healthcare services, including early detection and preventive services
- Environmental factors
- Social-economic factors

## Community Assets

Current community initiatives and organizations working toward increasing life expectancy include: Mayo Clinic Rochester; Olmsted County Public Health Services; Olmsted Medical Center; and Zumbro Valley Mental Health Center.

## Community Perception

***Years of potential life lost was not ranked at the prioritization sessions***

## Area of Greatest Opportunity

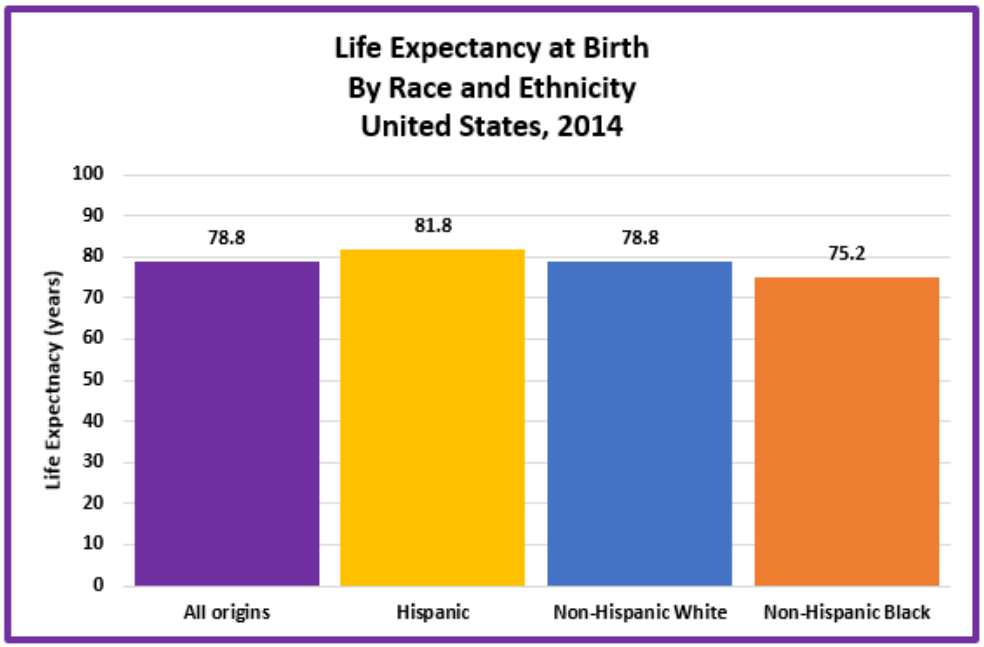
Strategies to lower years of potential life lost should focus on the causes of death that are affecting the community both in the number of deaths and those causes that have the community dying at a younger age. Additionally, deeper dives into the data should take place to identify disparities to better target efforts.

## Trend Data with Goal

Nationwide, life expectancy at birth continues to increase. The latest estimates show, on average, a baby born in the United States is estimated to live approximately 78.8 years. There is a slight increase in this estimate for Minnesota, at 81.05 years of life.

Olmsted County's estimated life expectancy is even greater - at 82.9 years. Residents of Olmsted County are expected to live, on average about four years longer than a typical United States resident.

Excluding perinatal conditions and congenital anomalies, homicide, AIDS/HIV, suicide, atherosclerosis and cirrhosis are the leading causes of death that impact premature death and contribute to significant years of life lost. For example, a person committing suicide, from 2012 to 2014, would lose approximately 30 years of life - or would die when he or she about 45 years old.




## Health Disparities

Olmsted County women have a longer life expectancy compared to men (81.2 vs 76.4). In the United States, the Hispanic population (81.8) has a longer life expectancy than non-Hispanic whites (78.8) and blacks (75.2).

**Olmsted County Premature Death**

| Cause of Death 2012 - 2014 | # Deaths* | Average YPLL |
|---|---|---|
| Perinatal Conditions | <20 | 72.5 |
| Congenital Anomalies | <20 | 48.8 |
| Homicide | <20 | 45.0 |
| AIDS/HIV | <20 | 35.0 |
| Suicide | 39 | 27.4 |
| Atherosclerosis | <20 | 15.0 |
| Cirrhosis | 28 | 13.2 |
| Unintentional Injury | 259 | 10.8 |
| Cancer | 657 | 8.0 |
| Diabetes | 44 | 7.8 |
| Pneumonia & Influenza | 52 | 5.2 |

*Number of deaths are not reported if under 20

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# HEALTH OUTCOMES

## Morbidity

Multiple Chronic Conditions

Asthma

Mental Health

Overweight/Obesity

Hypertension

Senior Tsunami

Diabetes


Preterm Births

Chronic Obstructive Pulmonary Disease

# SENIOR TSUNAMI

## Definition

The rapidly growing senior population has been referred to as a senior tsunami; named so because of the large number of baby boomers that are 'flooding' into the senior population.

This assessment focuses on two metrics, through the Rochester Epidemiology Project (REP): (1) falls - defined as the prevalence of falls among those 65 years and older that require medical attention; and (2) polypharmacy - defined as the proportion of those 65 years and older, who have been prescribed medication in more than five prescription classes within a year.

## Data Sources

American Hospital Association; Centers for Disease Control and Prevention; Rochester Epidemiology Project; United States Census Bureau

## Community Health Importance

People are living longer because of both lifestyle changes and advances in healthcare. The American Hospital Association reports that more people will be enjoying their later years, but they'll be managing more chronic conditions and therefore utilizing more healthcare services. Meeting these future healthcare challenges will require more resources, new approaches to care delivery and greater focus on wellness and prevention.

## What led to this Health Outcome?

America's population is growing older and people are living longer. The baby boomers generation - people born between 1946 and 1964, started to turn 65 in 2011, and 10,000 a day are added to the Medicare population.

## Community Assets

Current community initiatives and organizations that provide senior services include: Elder Network; home health agencies; Olmsted County Community Services; Olmsted County Public Health Services; Rochester Senior Center; senior living options; and Southeastern Minnesota Area on Aging.

## Community Perception

**Level of Threat/Issue**

Slight → Moderate → Significant → Severe/Extreme

***32% of prioritization participants feel senior tsunami is one of the top health issues impacting Olmsted County residents***

## Area of Greatest Opportunity

Strategies to decrease falls among the 65 and older population could include prevention programs focusing on both behavioral and environmental components. Older adults should be encouraged to participate in activity programs that aim to increase strength and balance along with social interaction.

## Trend Data with Goal

***Falls***

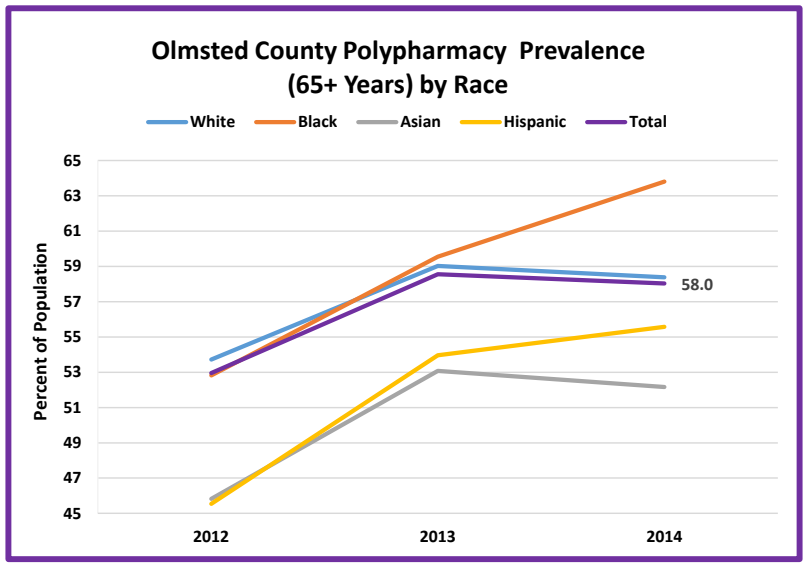
The Centers for Disease Control and Prevention reports that one out of three older seniors, 65 years and older, fall each year, but less than half tell their doctor. Data gathered from REP indicates that **6%** of Olmsted County seniors were seen in hospitals, clinics or emergency departments for falls in 2014. As age increases, the rate of falls increase as well; seniors over 85 years have the highest prevalence of falls at 15%.

***Polypharmacy***

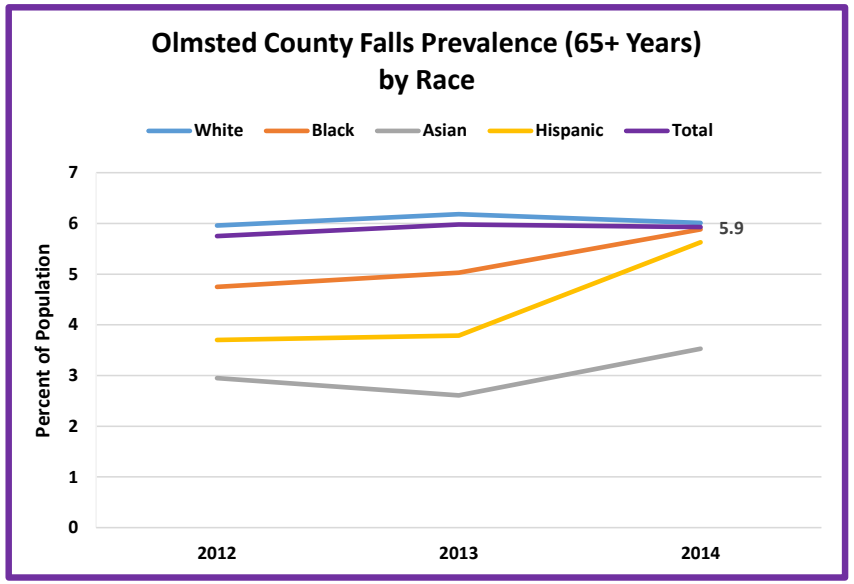
Data gathered from REP indicates that **58%** of Olmsted County seniors were prescribed medication in more than five prescription groups in 2014. The overall trend of polypharmacy continues to increase, with a 9.5% increase between 2012 and 2014. As age increases, the rate of polypharmacy increases as well; seniors over 85 years have the highest prevalence of polypharmacy at 74%.

The top three prescribed medications contributing to polypharmacy include:

- Anti-depressants
- Anti-lipemic Agents
- Opioid Analgesics




| Most Common Prescription Groups Contributing to Polypharmacy | |
|---|---|
| **Prescription Group** | **%** |
| Anti-depressants | 4.7 |
| Anti-lipemic Agents | 4.5 |
| Opioid Analgesics | 4.1 |
| Penicillins | 3.9 |
| Gastrointestinal Agents | 3.5 |
| Bronchodilators | 3.4 |
| Beta-blockers | 3.4 |
| Anti-inflammatory | 3.3 |
| ACE Inhibitor | 3.1 |
| Cardiovascular Medications | 3.0 |
| Hyperosmotic Laxatives | 2.8 |




## Health Disparities

***Falls***

In Olmsted County, female seniors have a higher rate of falls seeking medical attention than males (6.3% vs 5.4%). There are no notable differences seen between white, black and Hispanic seniors; however, Asians experience fewer falls than whites (3.5% vs 6.0%).

***Polypharmacy***

There are no significant differences in polypharmacy between gender (female 58.6% vs male 57.4%).

From 2012 to 2014, polypharmacy among all races has increased. During this time period, prevalence among black seniors and Hispanic seniors has increased the most (20.1% and 22.0%, respectively).

# OVERWEIGHT/OBESITY

## Definition

Adults are classified as overweight with a BMI* between 25.0 and 29.9; and obese with a BMI of 30.0 or higher. Children and adolescents are classified as overweight with a BMI-for-age at the 85th to less than 95th percentile and obese with a BMI-for-age equal to or greater than 95th percentile.

This assessment focuses on local weight status assessed during the Olmsted County CHNA survey. Height and weight measurements were self-reported and self-perceived weight status was ascertained.

*BMI (body mass index) is a person's weight in kilograms divided by his or her height in meters squared.

## Data Sources

Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, National Health and Nutrition Examination Survey; Healthy People 2020; Minnesota Department of Health, Minnesota Student Survey; Olmsted County CHNA Surveys

## Community Health Importance

Obesity is associated with many health-related problems from diabetes, heart disease, hypertension, and premature mortality to mental health issues. In addition, obesity increases the overall cost of healthcare placed on society.

## What led to this Health Outcome?

Many factors are associated with overeating and inadequate exercise that results in obesity. Factors may include: lack of knowledge of caloric intake, lack of access to healthy foods, eating for psycho-social reasons, overfeeding by parents, or lack of safe places to exercise.

## Community Assets

Current community initiatives and organizations working toward decreasing overweight/obesity include: Channel One Food Bank; Eat Smart, Be Smart (Rochester Community & Technical College); Farm to School programs; Farmers Market expansions and the acceptance of Electronic Benefit Transfer; the regional Food Policy Council; Healthy Concessions (Mayo Field); Olmsted County Public Health Services, Statewide Health Improvement Program (SHIP); Worksite Wellness; YMCA; and health clubs.

## Community Perception

**Level of Threat/Issue**

Slight → Moderate → Significant → Severe/Extreme

***52% of prioritization participants feel overweight/obesity is one of the top health issues impacting Olmsted County residents***

## Area of Greatest Opportunity

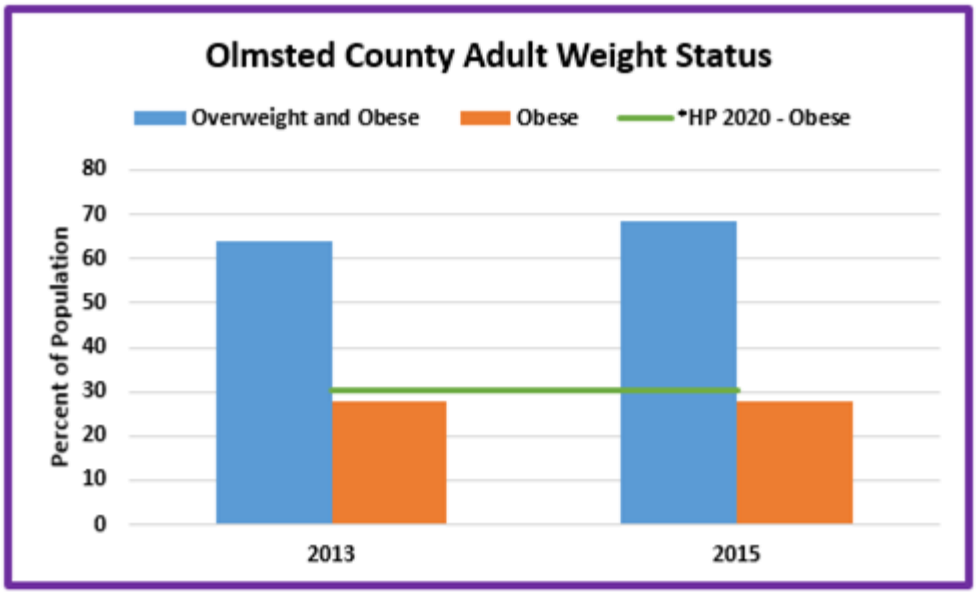
Because weight is influenced by energy (calories) consumed and expended, interventions to improve weight can support changes in diet or physical activity. They can help change an individual's knowledge and skills, reduce exposure to foods low in nutritional value and high in calories, or increase opportunities for physical activity. Improved access to healthy foods at schools, fast food sites and in homes continues to be a local community goal.

## Trend Data with Goal

According to the most recent national survey data available (Behavioral Risk Factor Surveillance System, 2014), approximately 65% of United States and 64% of Minnesota adults are overweight and obese, with 29.6% and 27.6%, respectively being obese.

To measure self-perception of weight status, Olmsted County CHNA Survey respondents were asked: 'Do you consider yourself to be… underweight; about the right weight; or overweight?' Self-reported height and weight measurements were also assessed to calculate exact BMI measurements. These results indicate that 45% believe they are currently overweight. This figure rises considerably when looking at BMI calculations - **41%** of Olmsted County adults are overweight; **28%** are obese (with a total of **68%** being overweight or obese).

Healthy People 2020 reports that 16% of adolescents age 12 to 19 are considered obese. The 2013 Minnesota Student Survey shows that 17% of Olmsted County youth and adolescents consider themselves to be overweight (13% males; 21% females). BMI calculations for these students shows that **18%** are overweight or obese (22% males; 18% females).

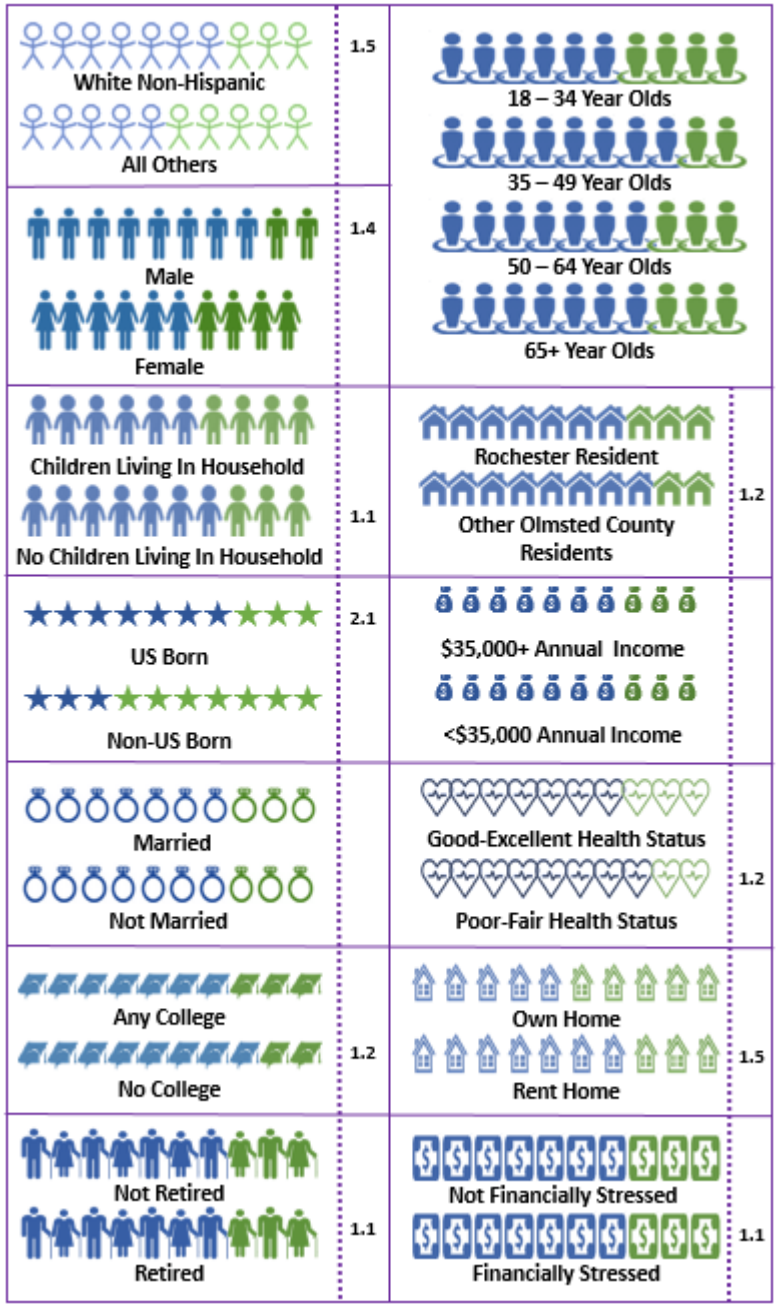



*HP 2020 target is for adults 20 and older

## Health Disparities

According to local data, obesity health disparities currently exist among certain subpopulations throughout Olmsted County. Those born in the United States; white, non-Hispanic individuals; and those who currently rent their home are more likely to be overweight or obese.

### Obesity Health Disparities




# OVERWEIGHT/OBESITY

# DIABETES


## Definition

Diabetes mellitus is a metabolic disease in which the body's inability to produce any or enough insulin causes elevated levels of sugar in the blood (glucose).

This assessment focuses on two metrics: (1) through the Rochester Epidemiology Project (REP), the prevalence of diabetes; and (2) Olmsted County CHNA Survey respondents were able to identify if they had been diagnosed with diabetes.

## Data Sources

Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, National Health and Nutrition Examination Survey; Healthy People 2020; Minnesota Department of Health, Health Improvement Division; Olmsted County CHNA Surveys; Rochester Epidemiology Project

## Community Health Importance

Diabetes affects an estimated 23.6 million people in the United States and is a top leading cause of death.

Diabetes impacts all aspects of a person's life from requiring changes in eating habits and daily monitoring of glucose levels to increasing risk for many other chronic conditions. The healthcare utilization and costs for people with diabetes are much higher than those for people without diabetes since many of those with diabetes are unable to follow the required life style changes and therefore have uncontrolled blood sugars which result in higher rates of complications.

The rapid, often termed epidemic, increase in diabetes puts high demand on healthcare services, including patient education, and forces the profession, including public health, to address the wide spread issues of low to modest health literacy. Because diabetes requires people to manage their condition on a day-to-day basis, it is imperative that they understand their condition and self-management goals and mechanisms.

## What led to this Health Outcome?

Currently type I diabetes is not preventable but treatable. Type II diabetes is closely associated with obesity and has been increasing in frequency for the past several years. Type II diabetes risk factors are a combination of genetic predisposition and obesity. The relative importance of the two is unknown but preventing obesity can delay or prevent the onset of type II diabetes.

## Community Assets

Current community initiatives and organizations that promote diabetes education, prevention and treatment include: Mayo Clinic Rochester; Olmsted Medical Center; Olmsted County Public Health Service, Statewide Health Improvement Program (SHIP); medical and public health diabetes education; and home care agencies.

## Community Perception

**Level of Threat/Issue**

Slight → Moderate → Significant → Severe/Extreme

***13% of prioritization participants feel diabetes is one of the top health issues impacting Olmsted County residents***

## Area of Greatest Opportunity

The increase in type II diabetes in the adolescent and young adult population and the recent Somalia immigrant population highlight the urgency of the need for prevention - obesity prevention and treatment to prevent or delay diabetes onset.

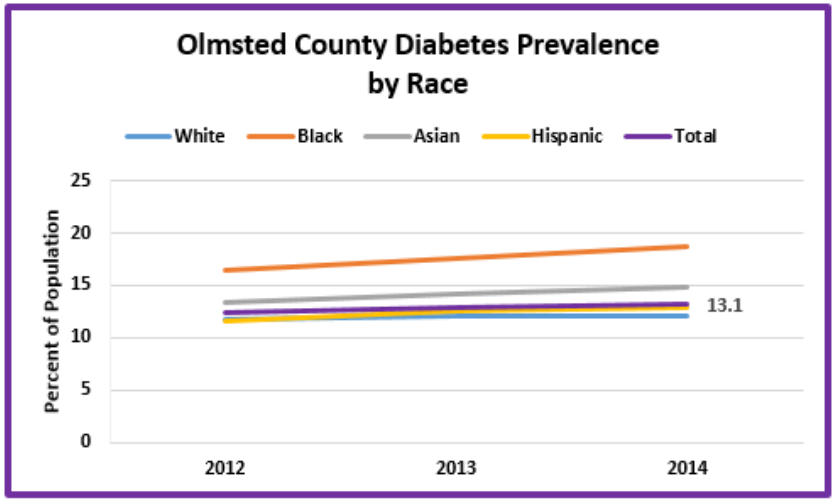
Improving health literacy may be another major opportunity. By increasing health literacy it may be feasible to increase the number of people with diabetes who can adequately self-manage their diabetes to prevent complications and need for emergency room visits and hospitalizations. Establishing a diabetes prevention program in the community has also been identified as a priority.

## Trend Data with Goal

According to the Centers for Disease Control and Prevention (2014), **7.1%** of the Olmsted County population has been diagnosed with diabetes; 7.5% in Minnesota and 9.3% in the United States.

Data gathered from REP indicates that approximately **13%** of Olmsted County residents are currently living with diabetes. The Olmsted County CHNA Community Survey indicates **10.2%** of adults have been told they are diabetic and an additional **4.1%** have been told they are pre-diabetic. Local data shows a slight increasing trend over the last few years.

## Health Disparities

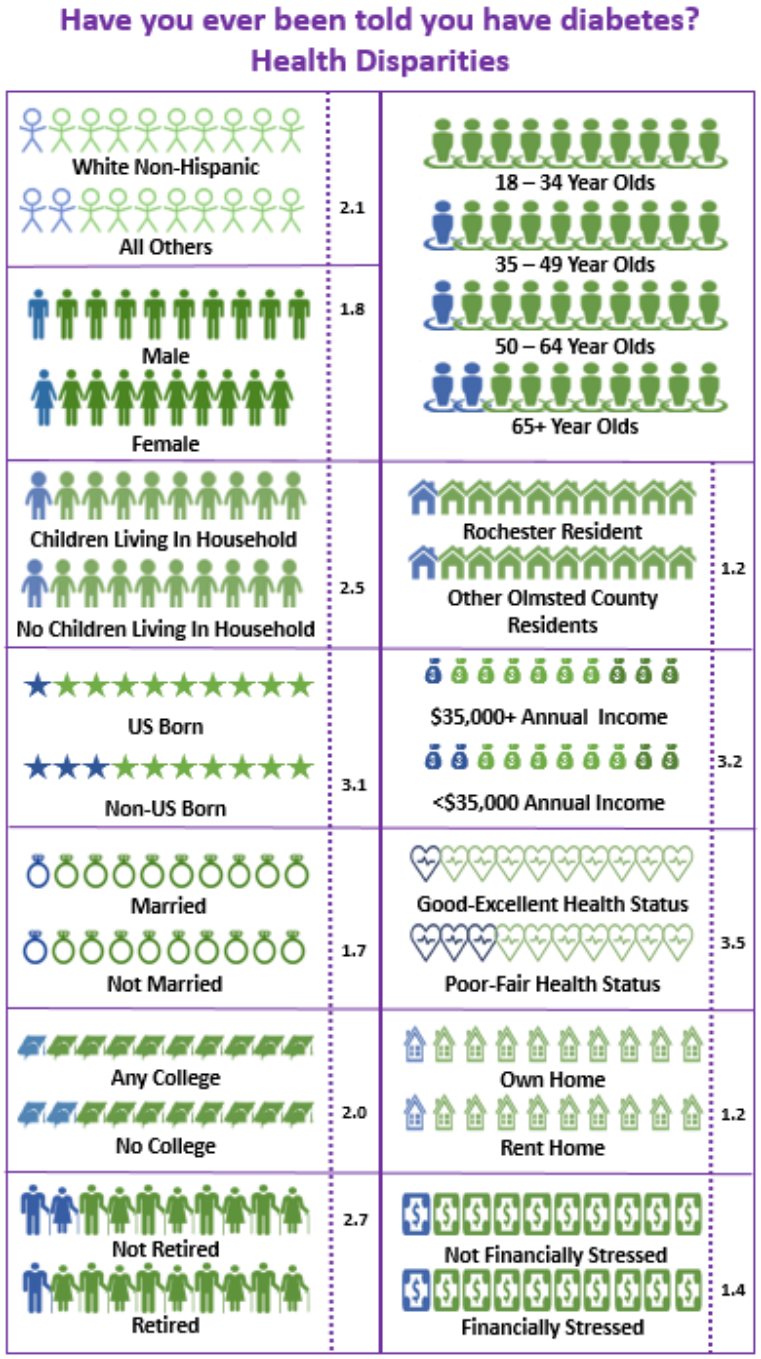



People from minority populations are more frequently affected by type II diabetes. Minority groups constitute 25% of all adult patients with diabetes in the United States and represent the majority of children and adolescents with type II diabetes. In Minnesota and the United States overall, diabetes risk is higher among African Americans. In Olmsted County that has been shown to be true for the recently arrived Somali immigrants with several cases of new onset type II diabetes following arrival in the United States and changes in diet and exercise. Data gathered from REP indicates that 2014 diabetes prevalence in the black population is 55% higher than the white population (18.7% vs 12.1%, respectively).

REP data indicates that men in Olmsted County have higher rates of diabetes as compared to women (14.2% vs. 12.3%, respectively). Additionally, the highest diabetes prevalence is seen in the oldest aged cohort - adults 65 years of age and older - at 48.6%.

The Minnesota Department of Health recently reported that working-age adults (18-64) who live in households earning less than $35,000 a year are two-and-a-half times as likely to report having diabetes as those with incomes higher than $35,000. One in four adults in Minnesota have incomes below $35,000. Local survey data shows that three times more Olmsted County adults earning less than $35,000 have diabetes than those earning more.

According to local data, diabetes health disparities currently exist among certain subpopulations throughout Olmsted County. Those with poor or fair health status and those living in household earning less than $35,000 annually are more likely to have diabetes.



# MULTIPLE CHRONIC CONDITIONS


## Definition

People with multiple chronic conditions are those with two or more chronic diseases that require treatment or are treatable. For example, an individual diagnosed with heart disease and depression would be considered to be living with multiple chronic conditions even though the conditions could all be related to smoking.

This assessment focuses on two metrics: (1) prevalence of multiple chronic conditions, through the Rochester Epidemiology Project (REP); and (2) Olmsted County CHNA Survey respondents were asked to identify if they had been diagnosed with a number of chronic conditions.

## Data Sources

Centers for Disease Control and Prevention; Healthy People 2020; Olmsted County CHNA Surveys; Rochester Epidemiology Project

## Community Health Importance

Multiple chronic conditions is important to define and recognize since individuals fitting this description have multiple requirements for lifestyle changes, multiple medications for therapy, and potentially multiple non-medication therapies. The conditions may provide greater than simple additive risk of complications and premature death.

Most adults over the age of 60 have multiple chronic conditions which can negatively impact each other and make management of symptoms and prevention of complications difficult. This is one of the most important problems in the care of older adults.

## What led to this Health Outcome?

Genetics, environment and human behavior all affect the presence and frequency of multiple chronic conditions and what those chronic conditions are. Tobacco use and obesity are two major factors leading to the presence of multiple chronic conditions, including cancer, heart disease, and diabetes.

## Community Assets

While the community has many specialists who deal with one disease or one organ system, people with multiple chronic condition require integration of these therapies.

Current community organization and initiatives that promote this integration include: Mayo Clinic Rochester; Olmsted Medical Center; Olmsted County Public Health Services; Zumbro Valley Mental Health Center; case management; and electronic health management and sharing.

## Community Perception

**Level of Threat/Issue**

Slight → Moderate → Significant → Severe/Extreme

***10% of prioritization participants feel multiple chronic conditions is one of the top health issues impacting Olmsted County residents***

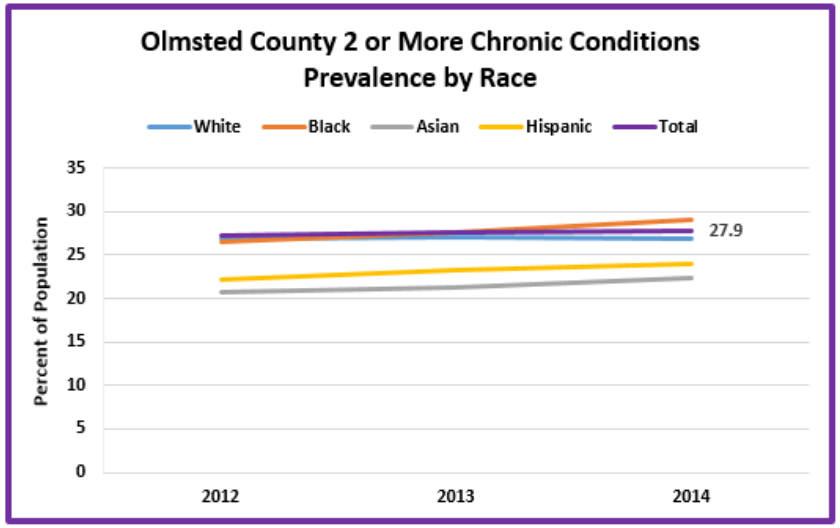
## Area of Greatest Opportunity

Efforts to assist lowering multiple chronic conditions should focus on preventing and managing the most common conditions that contribute to multiple chronic conditions. For Olmsted County that focus would include hyperlipidemia (high cholesterol), hypertension (high blood pressure) and depression.

## Trend Data with Goal

Data gathered by REP indicates that approximately **28%** of Olmsted County residents are living with two or more chronic conditions. The highest prevalence is seen in seniors (65 years of age or older), with 93.6% living with multiple conditions.

Data gathered from the Olmsted County CHNA Survey indicates that **33.4%** of Olmsted County adults are living with two or more chronic conditions.



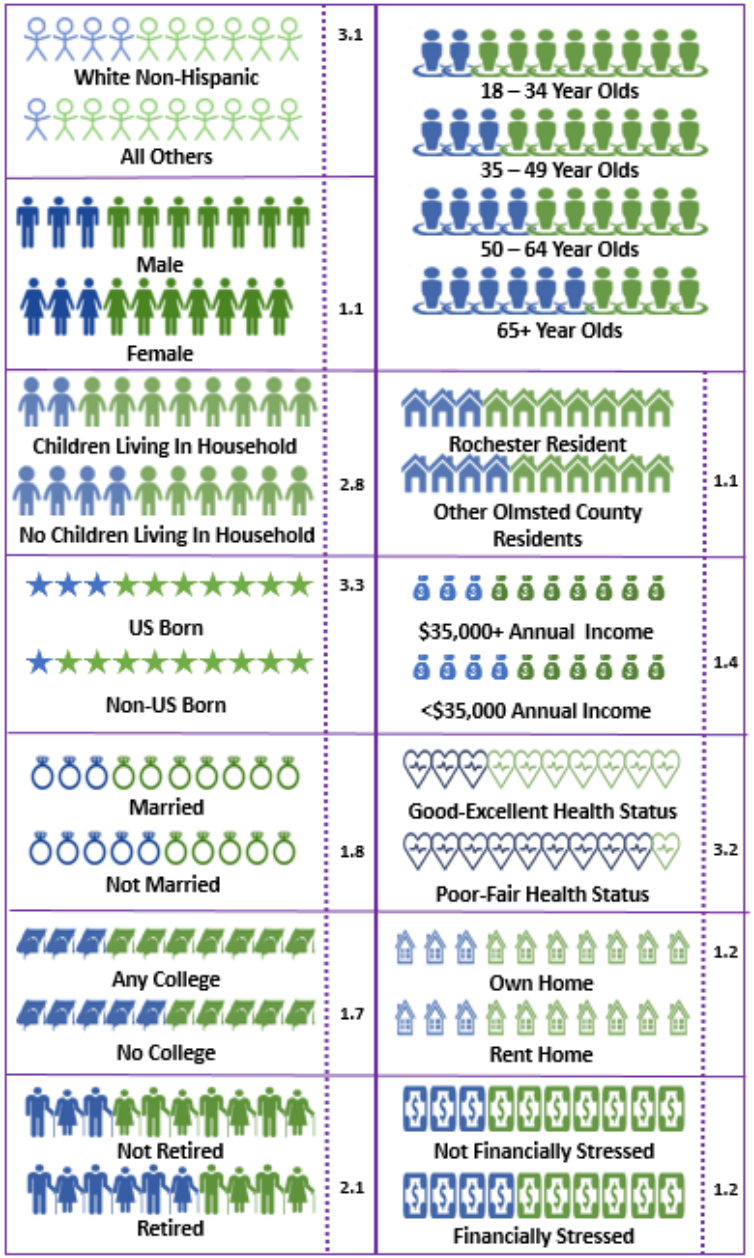

| Most Common Conditions Contributing to Multiple Chronic Conditions (2 or more) | |
|---|---|
| **Condition** | **%** |
| Hyperlipidemia | 18.3 |
| Hypertension | 15.6 |
| Depression | 12.0 |
| Diabetes | 11.1 |
| Arthritis | 9.8 |
| Cancer | 7.0 |
| Arrhythmia | 6.9 |
| Asthma | 5.6 |
| Coronary Artery Disease | 4.1 |
| Substance Abuse | 3.0 |
| COPD | 2.7 |

## Health Disparities

REP data shows that more females are living with two or more chronic conditions than males (28.3% vs 23.3%, respectively). Additionally, white and black individuals have higher rates of multiple chronic conditions than Hispanic and Asian individuals (26.9%, 29.0% vs 24.0% and 22.3%, respectively).

According to local data, health disparities currently exist among certain subpopulations throughout Olmsted County. Those with fair or poor health status; those with no children in the household; retired individuals; and white, non-Hispanic individuals are more likely to have multiple chronic conditions.

### Two or More Chronic Conditions Health Disparities




# MULTIPLE CHRONIC CONDITIONS

# MENTAL HEALTH

## Definition

Mental illness refers to a wide range of mental health conditions - disorders that affect your mood, thinking and behavior. Examples of mental illness include depression, anxiety disorders, schizophrenia, eating disorders and addictive behaviors. For children and adolescents this might include ADHD or ADD as well as other disorders (oppositional disorders) that some consider unique to that age group and the developing brain.

This assessment focuses on several mental health metrics assessed through the Rochester Epidemiology Project (REP) and the Olmsted County CHNA Community Survey (Survey):

- Mental illness prevalence via depression rates (REP) and self-reported mental health conditions (Survey)
- World Health Organization (WHO) Well-being Index
- Accessing or delaying mental health care and reasons for delaying care

*Refer to Supplemental Document, Appendix O for more information on these metrics.*

## Data Sources

Centers for Disease Control and Prevention, National Survey of Children's Health, 2007; Healthy People 2020; Minnesota Department of Health, Minnesota Student Survey; National Institute of Mental Health; Olmsted County CHNA Surveys; Rochester Epidemiology Project; World Health Organization

## Community Health Importance

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.

## What led to this Health Outcome?

While the community has many psychiatrists and psychologists, waiting times for appointments are long and insurance coverage is inadequate. Residential facilities for those who are chronically mentally ill are limited. Current mental illness affects every aspect of a person and their family's life from ability to complete family roles, roles within their house and community to work roles. For many, mental illness continues to be associated with stigma that prevents discussion of the symptoms and may prevent seeking or receiving appropriate and needed healthcare services.

Mental health problems in children and adolescents have both short term and potentially long term consequences. Long term, children and adolescents with emotional, developmental or behavioral problems are less likely to attend college or trade school, less likely to hold full time jobs, and more likely to spend time incarcerated. The costs of care for these problems are significant and insurance coverage is often limited.

## Community Assets

Current community initiatives and organizations working toward improving mental health issues include: ABC Child and Family Therapy; Bluestem Center; Community Behavioral Health Hospital; Family and Children's Center; Family Services Rochester; Fernbrook Family Center; Mayo Clinic Rochester, St. Mary's Hospital; Minnesota Parents Know; National Alliance on Mental Illness (NAMI) SE MN; Olmsted County Adult Behavioral Health Unit: Assertive Community Treatment (ACT) Team, Certified Intensive Dialectical Behavior Therapy Program, Re-Entry Olmsted County, Rapid Access Clinic, Adult Rehabilitative Mental Health Services; Intensive Community Rehabilitation Services Team; Olmsted County Children's Mental Health Collaborative; Olmsted County Public Health Services, Healthy Children and Families, Family Visiting Program; Olmsted County Children's Mental Health Resource Center; Olmsted Medical Center; Y Resource Center; and Zumbro Valley Mental Health Center.

## Community Perception

**Level of Threat/Issue**

Slight → Moderate → Significant → Severe/Extreme

***67% of prioritization participants feel mental health is one of the top health issues impacting Olmsted County residents***

## Area of Greatest Opportunity

There is a need to increase community awareness about mental health conditions in an effort to decrease the stigma that in many cases is the barrier for reaching out for help. Access to mental health providers in our community is limited; advocacy and policy changes are needed to promote the availability; and coordination of services is in urgent need.

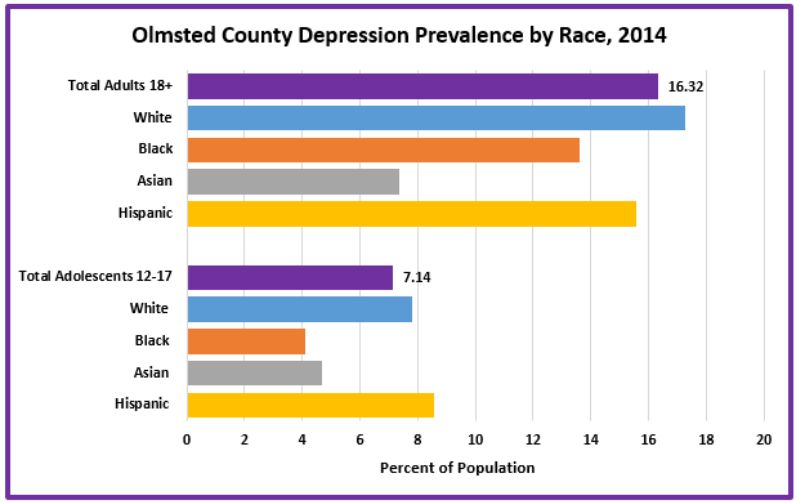
## Trend Data with Goal

Data gathered from REP indicates that approximately **7%** of Olmsted County adolescents and **16%** of adults had a depression diagnosis in 2014. There has been a 22% increase in depression prevalence in adolescents since 2012 (5.8% vs. 7.2%); while depression in adults has remained stable. The Minnesota Student Survey shows that 14% of Olmsted County and MN adolescents have considered committing suicide in the past.

Data from the Olmsted County CHNA Community Survey shows that **13.5**% of residents scored 50 or below on the World Health Organization's (WHO) well-being index which indicates low mood; of these, 29.4% scored 28 or lower, which indicates depression is likely.

Local data also shows that nearly one in three people have ever had a mental health condition (29.2%); currently 32% of the population is living in a household with at least one individual with a diagnosed mental health condition.

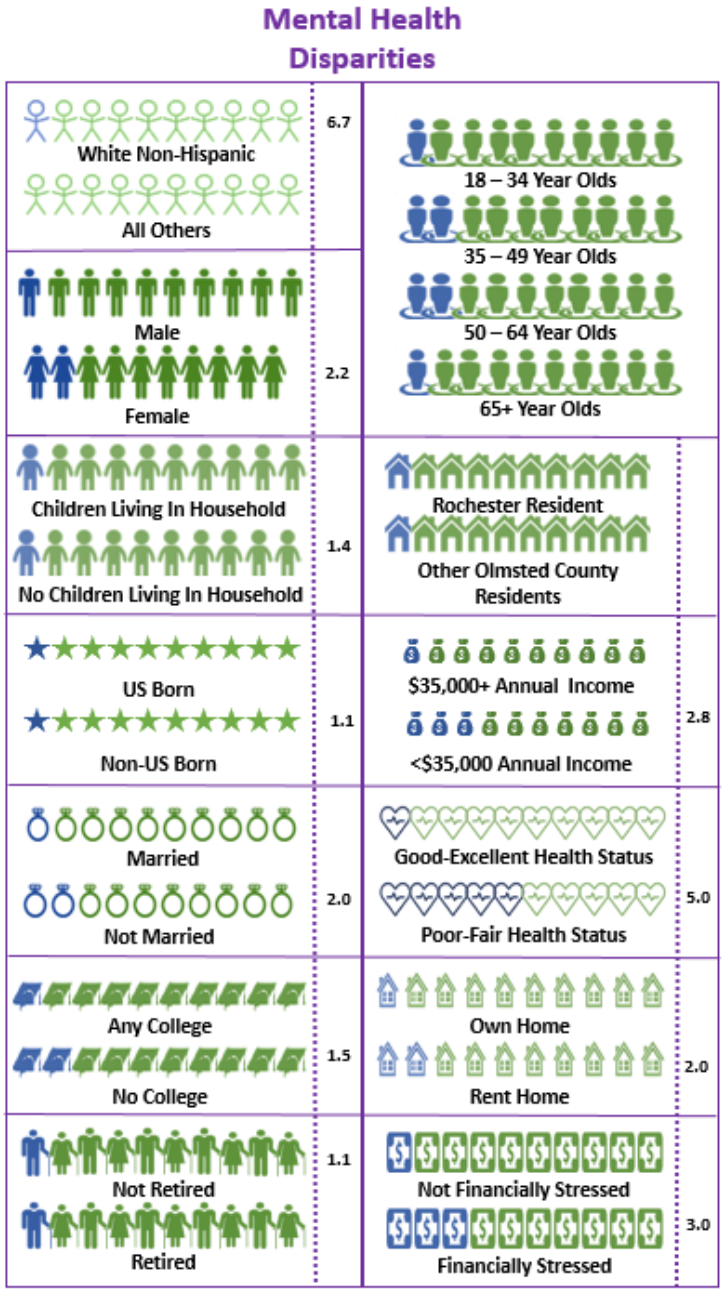
Over the last year, 12% of Olmsted County adults have seen a mental health provider for their own mental health. Delaying care for mental health issues still exists. Overall, 5% stated they needed mental healthcare but did not get it or delayed getting care. The top reasons for individual's not getting or delaying care were: cost; didn't know where to go; and work/family obligations. When all participants were asked why they believe people delay seeking care for mental health problems, the most common reasons were: afraid of what others might think; cost too much; no insurance; did not know where to go; and not covered by insurance.




## Health Disparities

Data gathered from the REP depicts an 80% higher prevalence of depression in adult females than males (20.8% vs 11.6%). This is seen in the adolescent population as well (9% female vs 5% males). The adult white population has the highest prevalence of depression (16.3%), followed by Hispanics (15.6%). In adolescents, Hispanics (8.5%) have the highest prevalence followed by whites (7.8%).

According to local data, mental health disparities currently exist among certain subpopulations throughout Olmsted County. White, non-Hispanic individuals; those with fair or poor health status; financially stressed individuals; and those living in household earning less than $35,000 annually are more likely to score below 50 on the WHO well-being index.



# ASTHMA

## Definition

Asthma is a chronic inflammatory disorder of the airways characterized by episodes of reversible breathing problems due to airway narrowing and obstruction. These episodes can range in severity from mild to life threatening. Symptoms of asthma include wheezing, coughing, chest tightness, and shortness of breath.

This assessment focuses on two metrics: (1) asthma prevalence, through the Rochester Epidemiology Project (REP); and (2) Olmsted County CHNA survey respondents were asked to identify if they had ever been diagnosed with asthma.

## Data Sources

Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System and National Center for Health Statistics; Healthy People 2020; National Institute of Health; Olmsted County CHNA Surveys; Rochester Epidemiology Project; United States Health and Human Services, National Heart, Lung and Blood Institute

## Community Health Importance

Currently in the United States, more than 24 million people have asthma. The burden of respiratory diseases affects individuals and their families, schools, workplaces, neighborhoods, cities, and states. Because of the cost to the healthcare system, the burden of respiratory diseases also falls on society; it is paid for with higher health insurance rates, lost productivity, and tax dollars. Annual healthcare expenditures for asthma alone are estimated at $56 billion.

## What led to this Health Outcome?

Many asthma exacerbations result in emergency department visits and hospitalizations. Hospitalizations for asthma exacerbations are expensive medical care undertakings, and are associated with missed school and work days and adversely affect the patient's quality of life.

Asthma can vary over time and is associated with exacerbations that have an acute onset and include a significant increase in symptoms. Most asthma exacerbations are associated with an identifiable trigger, such as environment air pollution. The causes of asthma are complex, and involve both genetic and environmental factors. Risk factors for asthma currently being researched at a national level include: family history of asthma; sensitization to irritants and allergens; respiratory infections in childhood; and obesity.

## Community Assets

Current community initiatives and organizations working around asthma include: Mayo Clinic Rochester; Olmsted County Public Health Services; Olmsted Medical Center; school districts; and Zumbro Valley Mental Health Center.

## Community Perception

**Level of Threat/Issue**

Slight → Moderate → Significant → Severe/Extreme

***2% of prioritization participants feel asthma is one of the top health issues impacting Olmsted County residents***

## Area of Greatest Opportunity

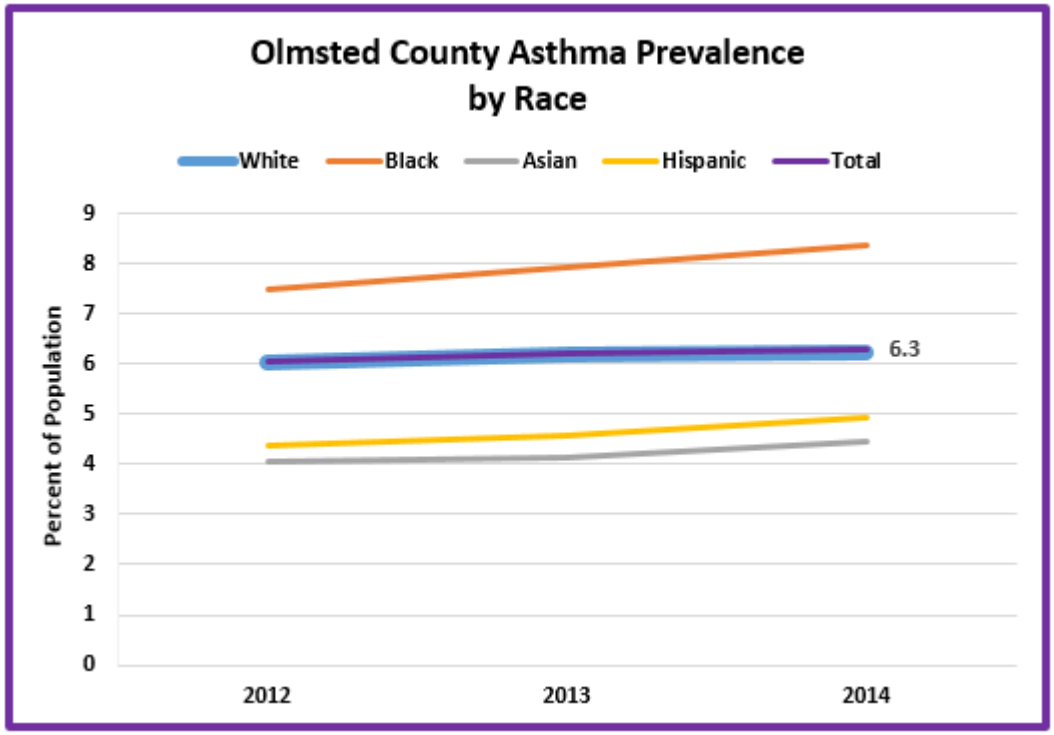
Opportunities to decrease asthma rates include policy and system-level changes: development of enhanced surveillance systems in cooperation with the Minnesota Department of Health and all healthcare facilities; policies requiring all buses to stop idling if in place for more than 10 minutes and retrofitting all diesel-using buses to lower emissions.

## Trend Data with Goal

According to the latest Behavioral Risk Factor Surveillance System data (2014), 8.9% of the population has asthma; 8.4% of Minnesota's population currently has asthma.

Data gathered from REP indicates that **6.3%** of Olmsted County residents currently have asthma; this percentage would equate to approximately 7,950 individuals county-wide.

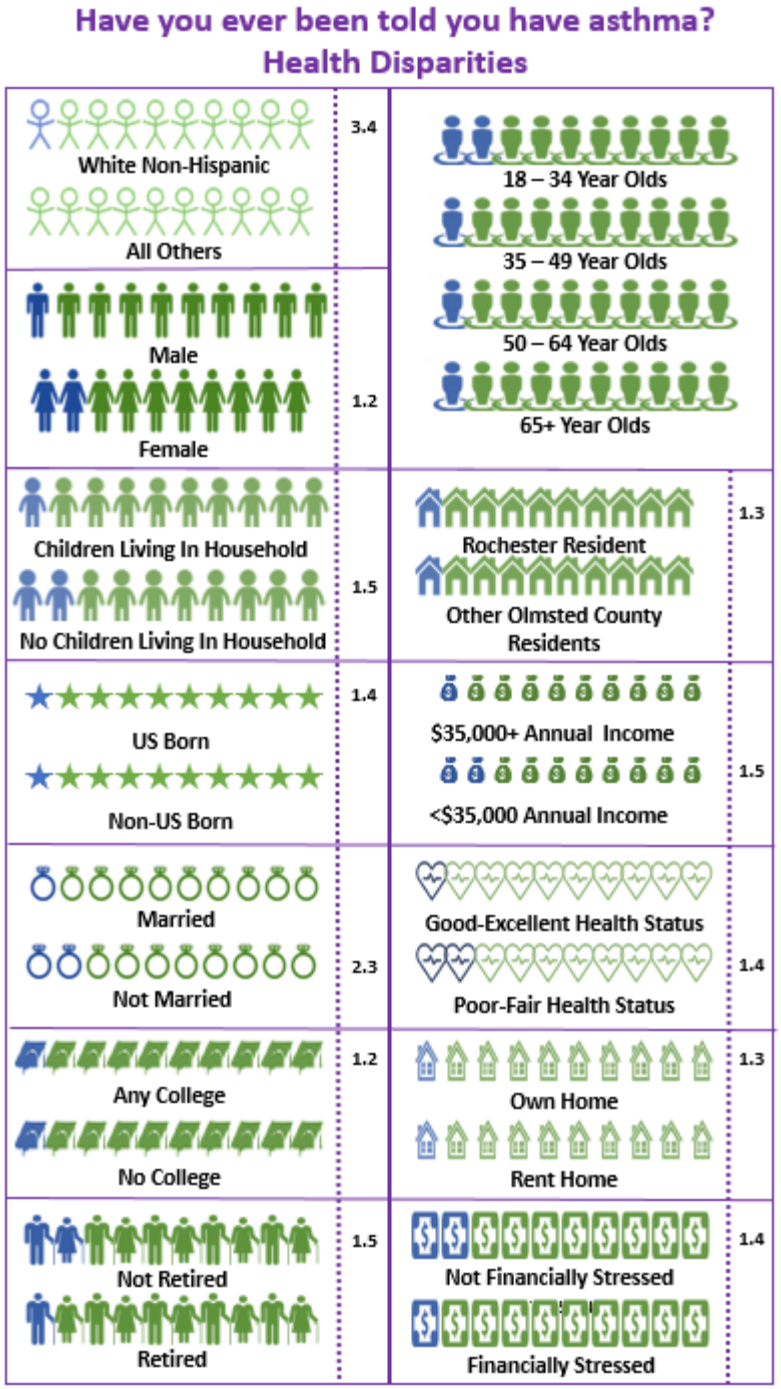
The Olmsted County CHNA Survey indicates that **14.6%** of Olmsted County residents have ever been told they had an asthma diagnosis.



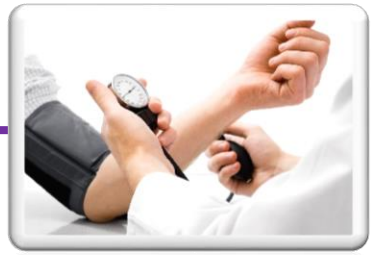

## Health Disparities

Asthma affects people of every race, sex, and age. However, significant disparities in asthma morbidity and mortality are known at a national level - in particular of low-income and minority populations. These national disparities are consistently found in Olmsted County as well.

According to local data, asthma health disparities currently exist among certain subpopulations throughout Olmsted County. Those individuals not married; those living in households earning less than $35,000 annually; and non-retired individuals are more likely to have asthma.



# HYPERTENSION



## Definition

Hypertension, or high blood pressure, is a disease which is associated with an increased risk of heart disease and stroke.

This assessment focuses on two metrics: (1) prevalence of hypertension, through the Rochester Epidemiology Project (REP); and (2) Olmsted County CHNA Survey respondents were asked to identify if they had been diagnosed with hypertension.

## Data Sources

Centers for Disease Control and Prevention; Healthy People 2020; Olmsted County CHNA Surveys; Rochester Epidemiology Project

## Community Health Importance

About 70 million American adults (or approximately one in three adults), have high blood pressure. Only about half (52%) of people with high blood pressure have their condition under control. High blood pressure increases as an individual ages. High blood pressure increases the risk for heart attack, stroke, heart failure, chronic kidney disease and cognitive decline.

## What led to this Health Outcome?

One in five adults with high blood pressure are undiagnosed. The exact causes of hypertension are not known, but several factors and conditions may play a role in its development, including:

- Smoking
- Being overweight or obese
- Lack of physical activity
- Too much salt in the diet
- Too much alcohol consumption
- Stress
- Older age
- Genetics
- Chronic kidney disease
- Adrenal and thyroid disorders
- Sleep apnea

## Community Assets

Current community initiatives and organizations working around hypertension include: community health fairs; Community Health Services; first responders (paramedics, fire department); home healthcare agencies; individual corporations with a healthcare center; Living Well at Home in-home monitoring; Mayo Clinic Rochester; Olmsted Medical Center; and pharmacies.

## Community Perception

**Level of Threat/Issue**

Slight → Moderate → Significant → Severe/Extreme

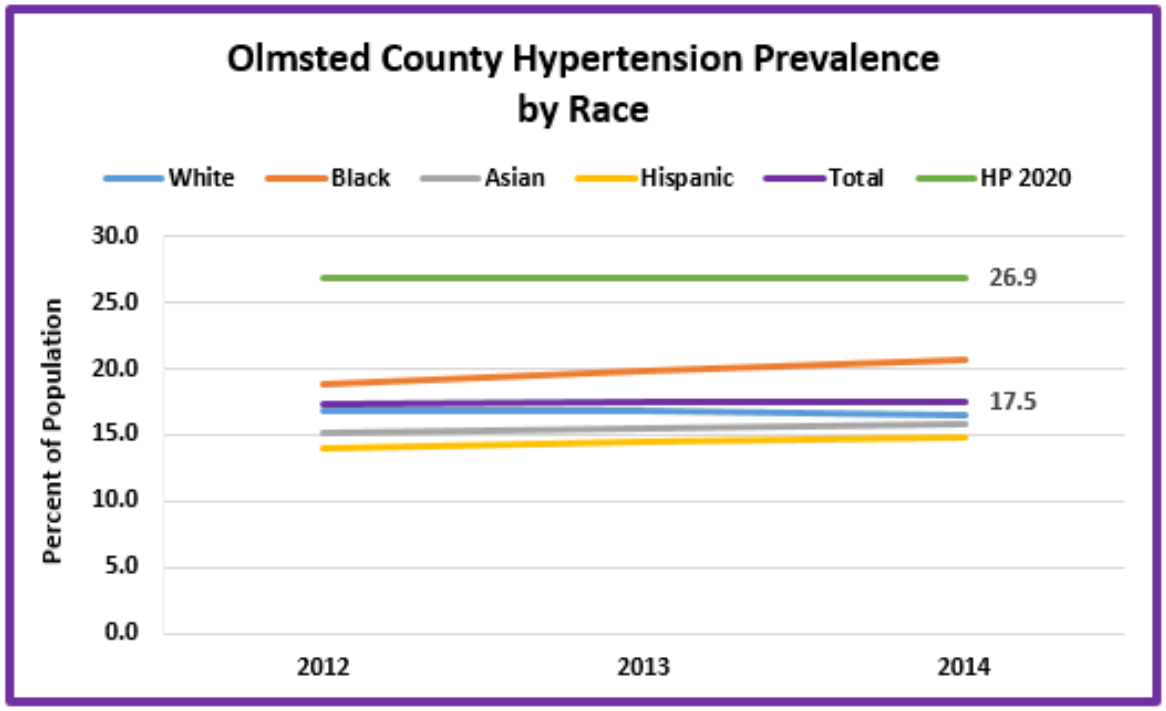
***3% of prioritization participants feel hypertension is one of the top health issues impacting Olmsted County residents***

## Area of Greatest Opportunity

Preventing and managing hypertension shares similar strategies with diabetes, obesity, physical activity, and fruit and vegetable consumption. Evidence-based strategies specifically for hypertension management focus on shifting to a holistic approach, including coordinating care and engaging patients throughout their care.

## Trend Data with Goal

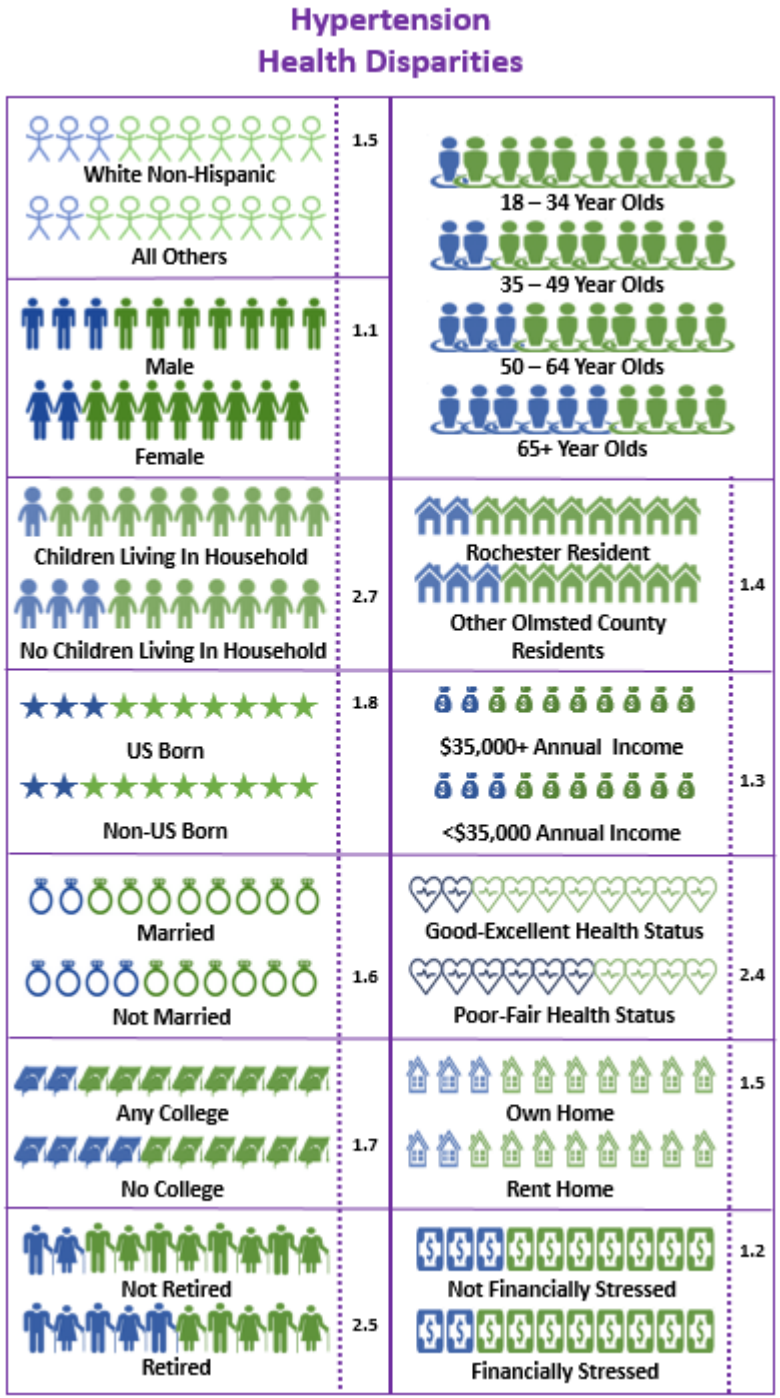
Data gathered from REP indicates that **17.5%** of Olmsted County residents currently have hypertension. The Olmsted County CHNA Survey shows an even higher rate at **26.3%**, which is more in line with Minnesota at 27% and the United States at 31.4%.




## Health Disparities

According to REP data, Olmsted County males have a slightly higher prevalence of hypertension than females (18.4% vs 16.7% respectively). Additionally, black individuals have the highest prevalence of hypertension (20.6%); Hispanic individuals have the lowest prevalence at 14.9%.

According to local data, hypertension health disparities currently exist among certain subpopulations throughout Olmsted County. Retired individuals; those living in households with no children; and those with fair or poor health status are more likely to have hypertension.



# CHRONIC OBSTRUCTIVE PULMONARY DISEASE

## Definition

Chronic obstructive pulmonary disease (COPD), is a group of lung diseases that cause obstruction of the airways. Emphysema and chronic bronchitis are the two most common diseases that make up COPD. COPD is a preventable and treatable disease characterized by airflow limitation that is not fully reversible.

This assessment focuses on two metrics: (1) prevalence of COPD, through the Rochester Epidemiology Project (REP); and (2) Olmsted County CHNA Survey respondents were able to identify if they had been diagnosed with COPD.

## Data Sources

Centers for Disease Control and Prevention, Morbidity and Mortality Weekly Review, National Center for Health Statistics; Healthy People 2020; Olmsted County CHNA Survey; Rochester Epidemiology Project; United States Health and Human Services, National Heart, Lung and Blood Institute

## Community Health Importance

COPD is the third leading cause of death in the United States. In 2013, approximately 149,205 individuals died from COPD - a number very close to that reported for lung cancer deaths in the same year. In nearly eight out of ten cases, COPD is caused by exposure to cigarette smoke. In addition, other environmental exposures (such as those in the workplace) may cause COPD.

## What led to this Health Outcome?

COPD is strongly associated with long-term tobacco smoking and is a progressive disease that is often punctuated by recurrent exacerbations when symptoms rapidly increase and can deteriorate into symptoms requiring hospitalization. Many COPD exacerbations have an identifiable trigger; including: cigar smoke, secondhand smoke, pipe smoke, air pollution and workplace exposure to dust, smoke or fumes.

## Community Assets

Current community initiatives and organizations working around COPD include: Freedom to Breathe Act/Smoke Free Workplaces; Smoke Free Ordinances; and Smoke Free Multi-Unit Housing.

## Community Perception

**Level of Threat/Issue**

Slight → Moderate → Significant → Severe/Extreme

***No prioritization participants feel COPD is one of the top health issues impacting Olmsted County residents***

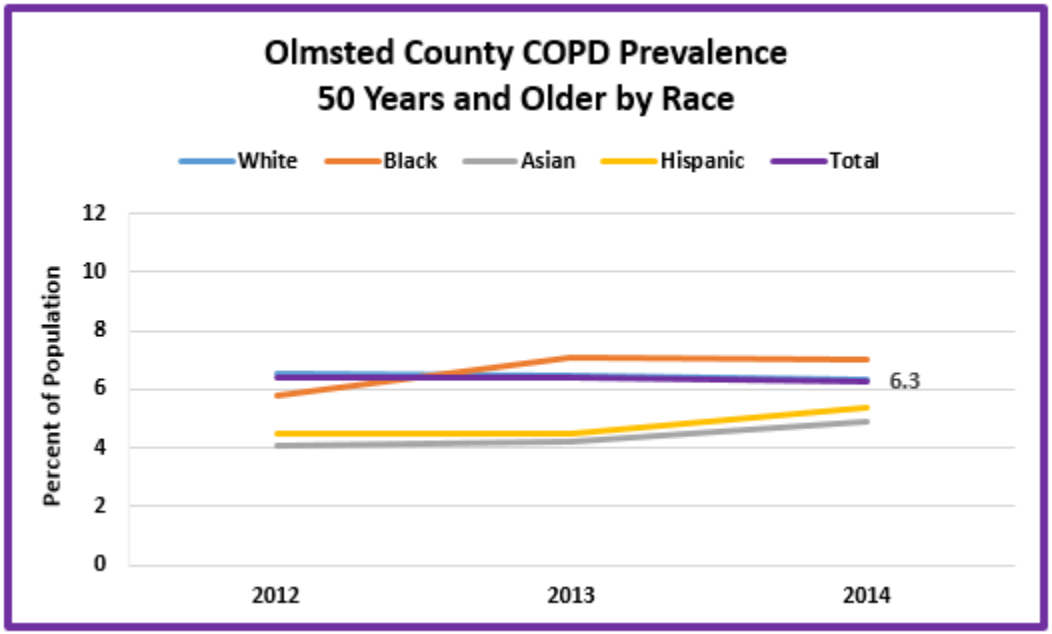
## Area of Greatest Opportunity

There are several opportunities to advance knowledge regarding COPD and other respiratory disease conditions. Potential opportunities include efforts to enhance prevention, screening and detection, and community education.

## Trend Data with Goal

Data gathered from REP indicates that **6.3%** of Olmsted County residents, ages 50 and older, are currently living with COPD. The latest data from the Behavioral Risk Factor Surveillance System (2014) indicates that 6.4% of United States adults and 4.4% of Minnesota adults have COPD.

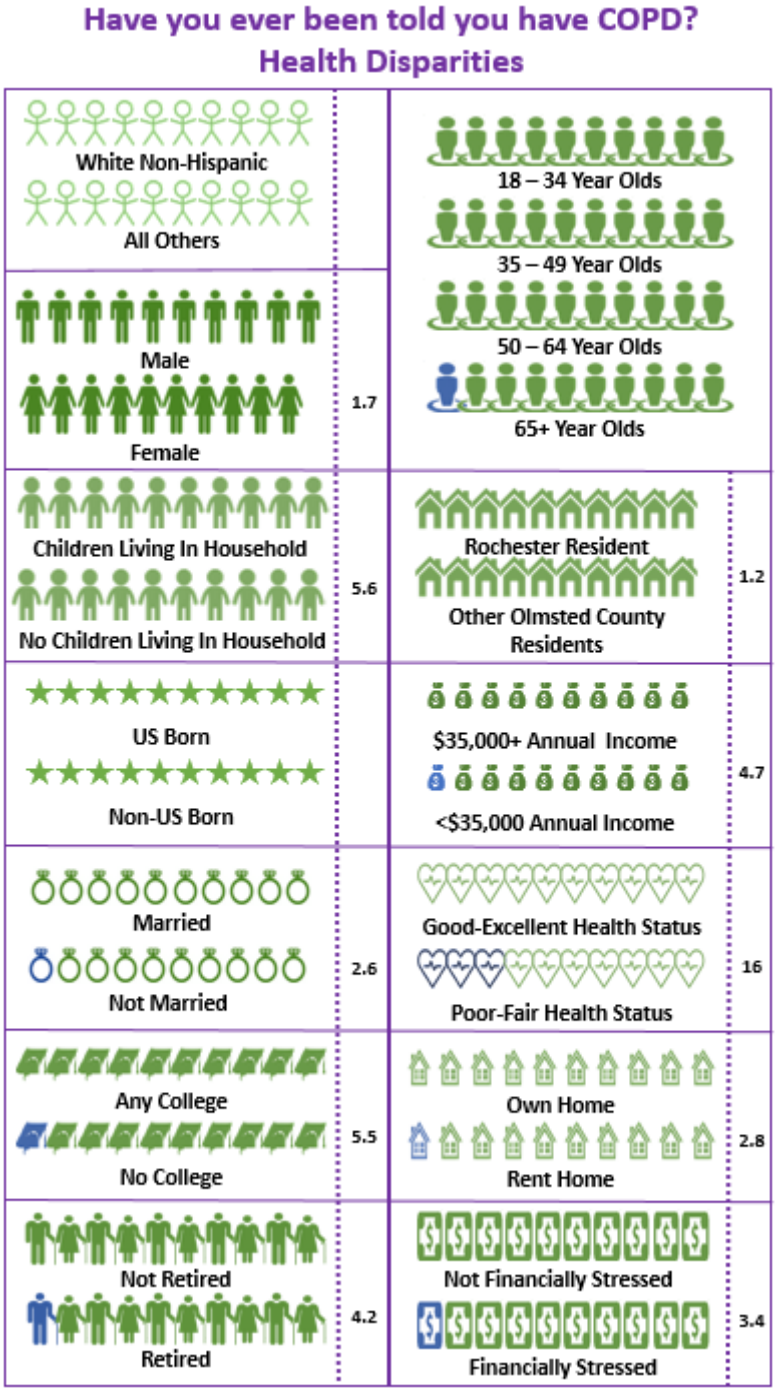
The Olmsted County CHNA Survey indicates that **3.4%** of Olmsted County residents have been told they have a chronic lung disease, which includes COPD, chronic bronchitis or emphysema.




## Health Disparities

At a national level, women and men are affected equally, yet more women than men have died of COPD since 2000. COPD is a disease that affects the older population; 6.3% of Olmsted County adults 50 years and older have COPD. This doubles when looking at the oldest group: 15% of those 85 years and older are living with COPD.

According to local data, COPD health disparities currently exist among certain subpopulations throughout Olmsted County. Those with fair or poor health status; individuals with no college education; retired individuals; and those living in household earning less than $35,000 annually are more likely to have COPD.



# PRETERM BIRTHS

## Definition

Preterm birth, or prematurity, is when an infant is born more than three weeks early. This assessment focuses on infants born before full-term.

## Data Sources

Centers for Disease Control and Prevention, National Center for Health Statistics; Healthy People 2020; Minnesota Department of Health, Center for Health Statistics

## Community Health Importance

Premature birth is the biggest contributor to infant death. Babies who survive may spend weeks or months hospitalized in a neonatal intensive care unit and may face lifelong problems such as problems with learning; vision and hearing loss; feeding and digestive problems; respiratory problems; cerebral palsy; and/or autism.

## What led to this Health Outcome?

Even if a woman does everything 'right' during pregnancy, she still can have a premature baby, however certain risk factors can increase the chance that a woman will have a premature baby. Some of these risk factors include: previous preterm birth; being pregnant with more than one baby (twins, triplets, or more); problems with the uterus or cervix; chronic health problems in the mother, such as high blood pressure, diabetes, and clotting disorders; certain infections during pregnancy; and cigarette smoking, alcohol use, or illegal drug use during pregnancy. Other factors associated with preterm birth are low or high age of mother; maternal race; low income; receiving late prenatal care; and stress.

## Community Assets

Current community initiatives and organizations working toward decreasing preterm births include: Birthright; March of Dimes; Mayo Clinic Rochester; Olmsted County Public Health Services; Olmsted Medical Center; Planned Parenthood; and United Way of Olmsted County.

## Community Perception

**Level of Threat/Issue**

Slight → Moderate → Significant → Severe/Extreme

***1% of prioritization participants feel preterm births is one of the top health issues impacting Olmsted County residents***

## Area of Greatest Opportunity

In March 2015, the Minnesota Department of Health released the *Infant Mortality Reduction Plan*. One of the priority recommendations developed to reduce infant mortality was to reduce the rate of preterm births in Minnesota.

*'Minnesota has some of the lowest infant mortality rates in the country, but it is not acceptable that American Indian and African American infants are dying at twice the rate of white infants. This plan underscores that, if we are to improve overall infant survival, we must do more to address the social and economic factors impacting infant mortality in Minnesota.'*

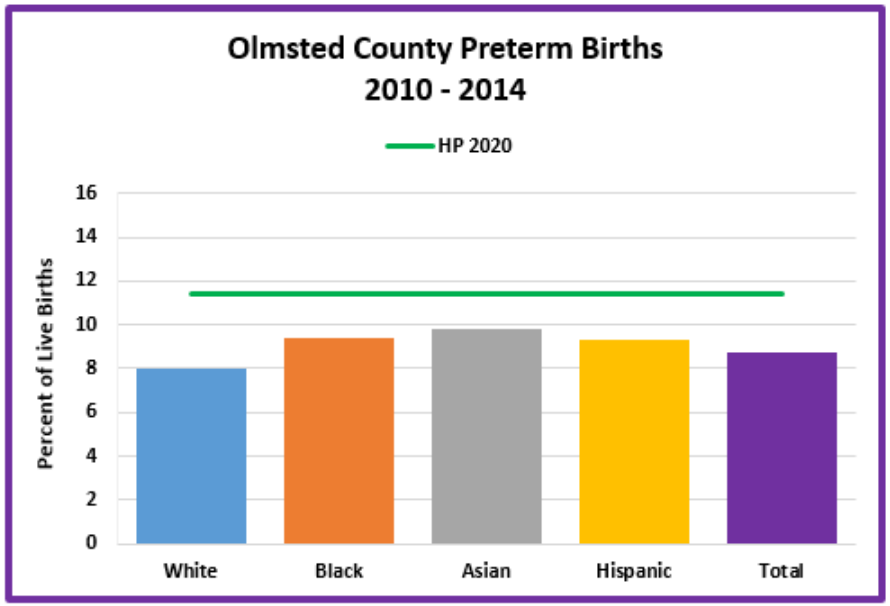
*- Health Commissioner Dr. Ed Ehlinger*

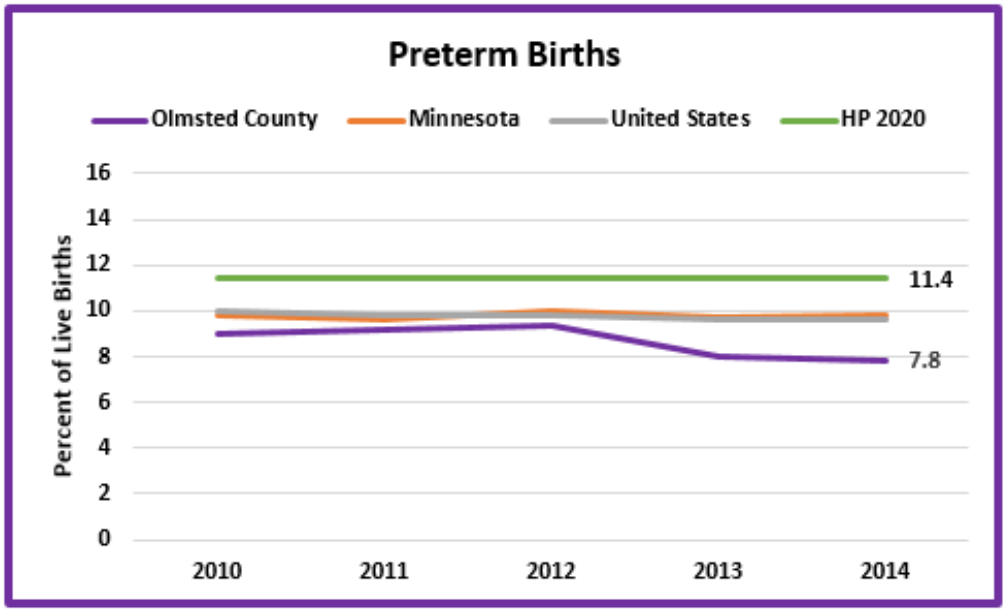
## Trend Data with Goal

From 2010 to 2014, there were an average of 2,172 births to Olmsted County residents. For every 100 live births, approximately nine are born premature. This rate remains relatively consistent; from 2010 to 2012 the rate of premature births in Olmsted County stayed fairly stable.

From 2010 to 2014, Olmsted County's rate of preterm births (**8.7%**) continues to be lower than Minnesota (9.8%) and the national Healthy People 2020 goal of 11.4%.

Note: Comparisons to the United States cannot be made; beginning in 2014, the National Center for Health Statistics transitioned to a new standard for estimating the gestational age of a newborn.




## Health Disparities

In Olmsted County, from 2010 to 2014, premature births to whites (8.0%) were 22.5% lower than Asians (9.8%) and 17.5% lower than blacks (9.4%). The group of women 40 years and older currently have the highest rate of preterm births (11.9%); this is also the only subgroup that is higher than the current Healthy People 2020 goal of 11.4%

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# HEALTH FACTORS

Health factor indicators in this assessment represent the potential for the health of our county ***tomorrow.*** These are factors which influence the health of tomorrow - ultimately, indicators that the community is able to influence, change, and make better.

Indicators in the health factors section are broken down into four subsections that influence overall health status: (1) health behaviors, (2) clinical care, (3) social and economic factors (social determinants of health), and (4) physical environment.

Risky **health behaviors** such as smoking, having poor nutrition, not exercising, drinking alcohol and distracted driving all contribute to poor overall health status and influence a number of health outcomes.

A significant barrier to good health is lack of access to adequate and routine healthcare, including health screenings. Many components impact healthcare access, including, but not limited to: location of facilities and personnel, transportation, income and insurance. Poor health outcomes can be reduced if community residents access **clinical care** services such as routine medical care, dental care, and health screenings. These prevention indicators can illustrate a community that has access barriers, limited health literary and knowledge, but ultimately can inform future program interventions.

Social determinants of health are directly correlated with overall health status. Poverty, unemployment, and lack of educational achievement affect access to care and a community's ability to engage in healthy behaviors. Without a network of support and a safe resilient community, families cannot thrive. Ensuring access to **social and economic** resources provides a foundation for a healthy community.

The **physical environment** where people live also impacts community health. A safe, clean, and breathable environment that provides access to healthy homes and safe water is important in maintaining and improving community health.

# COMMUNITY PERCEPTION

## Quotes from Community Listening Sessions

*'Person has services and qualifies for low-income services and has needed resources; then starts working more hours and loses healthcare services.'*

*'Money is a problem as many people in the county do not know people are suffering in their lives or that they have problems.'*

*'Reaching the immigrants is not working.'*

*'Health education and health literacy connects to have a place to get culturally appropriate information. You don't want to get bad information.'*

*'Having to go to the ER [because healthcare provider] won't see if you're late for an appointment.'*

*'Healthcare is one of the most important issues but now it is the most inaccessible and most complicated system today versus what it used to be.'*

*'Someone who is well versed to navigate own system; not managed care; some central office; patient navigation; know that there might be some cultural needs.'*

*'Obesity is on the rise because fast food is really cheap; ex., You can get a burger for $1 and salad for $3.'*

*'Drugs and alcohol - there are more high school students and freshman using drugs and starting use at younger ages.'*

*'Dental [care] is extremely expensive, don't have regular check-ups, only go when you have toothache.'*

## Perception of Health Factors via Community Listening Sessions

The community's perception of health factors was assessed through the community listening sessions. *Refer to Supplemental Document, Appendix D for a detailed summary of the listening sessions.*

In the community listening sessions, health factors had multiple subthemes linked directly to **individual behaviors and social and economic factors** (social determinants of health). Discussion of health behaviors correlated to an individual's lifestyle and actions to maintain health with diet, exercise, safe sex, and happiness being pivotal to health. There was the impression that wellness is impacted by:

- *'exercise, healthy eating, mental health as well as physical health'*
- *'being healthy, getting shots, eating healthy'*
- *'positive outlook'*

**Social determinants of health** led the discussion, especially those linked to socioeconomic status. This relates directly to economic stability, education, social and community cultural factors. The most common concerns included:

- Insurance status
- Access and affordability of healthy foods
- Housing costs
- Homelessness
- Access and awareness of resources in the community
- Health education, communication, and access to healthcare for children in schools
- Access to care
- Open communication with community members and service providers
- Schools' role/impact on health
- Social and cultural stigma

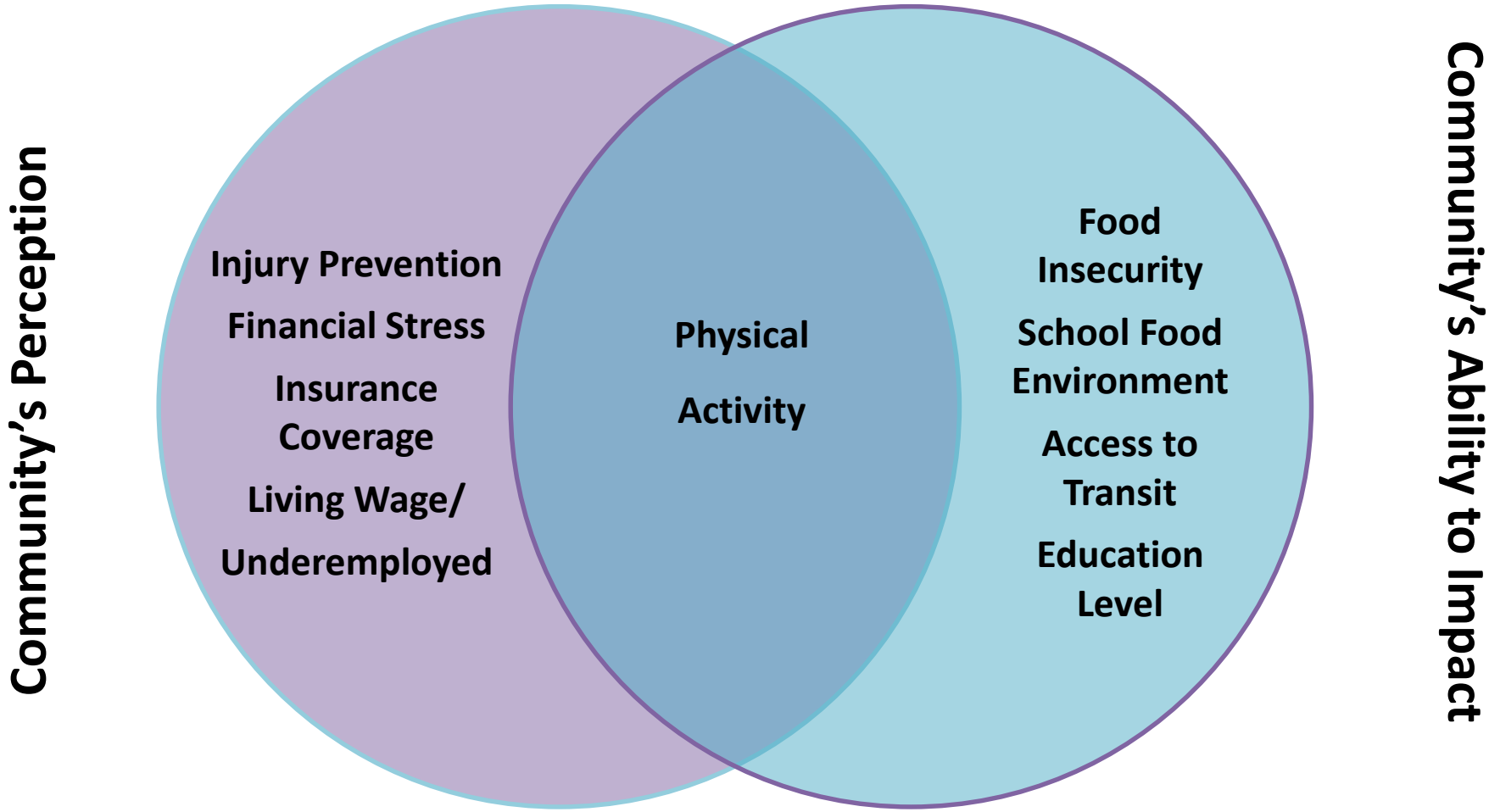
The organic nature of the listening sessions afforded the opportunity to learn participants' thoughts on the **physical environment** like neighborhoods and the built environment in the County. Much of the listening session results centered on safety of the community**,** places for recreation activities like sports, cleanliness of the environment, and transportation.

Participants also mentioned that the local community in Olmsted County needs to be open to people with a variety of health concerns especially those with chronic health conditions. This related to need for more support groups for diseases like diabetes, having rehabilitation centers, and other community spaces to help improve health.

## Perception of Health Factors via Community Prioritization Sessions

The community's perception of health factors was also assessed through the community prioritization sessions. Community prioritization participants were able to provide input regarding: (1) the level the public perceives health factor indicators to be a threat or issue (community perception); and (2) the level or the ability of the community collectively to prevent, reduce or impact the health issue (community's ability to impact).

The chart below depicts the health factor indicators that came out as the top five health issues based on the two subjective questions asked during the prioritization process. Indicators that were identified as a top issue in both categories are listed in the middle.




*Refer to Supplemental Document, Appendix E for more information on the prioritization process.*

# COMMUNITY PERCEPTION

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# HEALTH FACTORS
# Health Behaviors

Injury Prevention

Binge Drinking

School Food Environment

Physical Activity

Tobacco Use

Fruit & Vegetable Consumption

# TOBACCO USE

## Definition

For this assessment, any adult tobacco use is defined as adults (18+ years of age) currently using cigars, cigarettes, chewing tobacco, snuff, or snus. Specifically, a current smoker has smoked at least 100 cigarettes in his/her lifetime and now smokes every day or some days.

This assessment focuses on two metrics: (1) Olmsted County CHNA Survey respondents were asked if they smoked as least 100 cigarettes in their life and if they smoke cigarettes or cigars every day, some days, or not at all; and (2) Minnesota Student Survey respondents were asked if they had used tobacco products in the past 30 days.

## Data Sources

Centers for Disease Control and Prevention; Healthy People 2020; Minnesota Department of Health: Minnesota Student Survey, Minnesota Adult Tobacco Survey; Olmsted County CHNA Surveys

## Community Health Importance

Smoking harms nearly every organ of the body, causing many diseases and affecting the general health of smokers and their close contacts. Tobacco use is the single most preventable cause of death and disease in the United States; tobacco use accounts for approximately 443,000 deaths - or one of every five deaths - in the United States each year. In addition, tobacco use costs the United States $193 billion annually in direct medical expenses and lost productivity.

## What does this Health Factor Influence or Impact?

Compared with nonsmokers, tobacco use is estimated to increase the risk of coronary heart disease and stroke (two to four times), the development of lung cancer, and dying from chronic obstructive lung diseases. Every year, more deaths are caused by tobacco use than by all deaths from human immunodeficiency virus (HIV), illegal drug use, alcohol use, motor vehicle injuries, suicides, and murders combined. Additionally, research has shown that smoking during pregnancy causes health problems for both mothers and babies, such as pregnancy complications, premature births, low birth weight infants, stillbirths, and has also been linked with sudden infant death syndrome (SIDS).

## Community Assets

Current community initiatives and organizations working toward decreasing tobacco use through policy development, include: Freedom to Breathe Act/Smoke Free Workplaces; Olmsted County Public Health Services, Statewide Health Improvement Plan (SHIP)Smoke Free Ordinances; and Smoke Free Multi-Unit Housing.

## Community Perception

**Level of Threat/Issue**

Slight → Moderate → Significant → Severe/Extreme

***15% of prioritization participants feel tobacco use is one of the top health issues impacting Olmsted County residents***

## Area of Greatest Opportunity

Preventing tobacco use and helping tobacco users quit can improve the health and quality of life for Americans of all ages. People who stop smoking greatly reduce their risk of disease and premature death. Effects of tobacco can be significantly reduced by strengthening county ordinances that deal with smoke/tobacco-free locations, access and workplaces.

## Trend Data with Goal

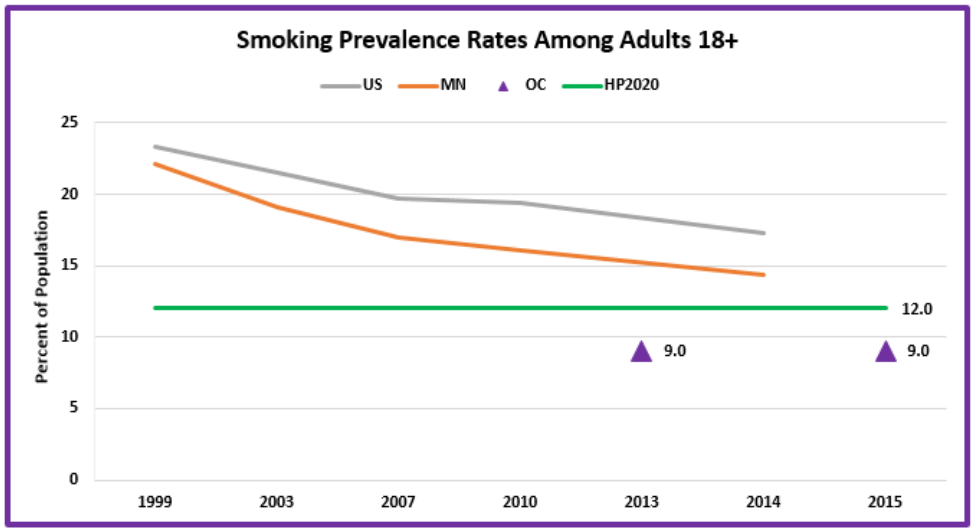
***Adult Tobacco Use***

Both the United States and Minnesota smoking prevalence rates have been declining steadily over the past several decades. According to the 2014 Minnesota Adult Tobacco Survey, smoking prevalence rates in the United States are at 17.3%, where Minnesota rates are at 14.4%.

At **9%**, Olmsted County's smoking prevalence rate is far lower than the state and nation; this percentage would equate to approximately 13,500 adults smoking tobacco county-wide. When including all forms of tobacco (pipe, cigar, e-cigarette), **13.2%** of Olmsted County report currently using tobacco products.

***Adolescent Tobacco Use***

The Minnesota Student Survey shows **11%** of Olmsted County adolescents have used tobacco products in the past 30 days. Olmsted County is consistent with Minnesota's rate (11%); is 50% lower than the United States (22%) and 45% lower than the Healthy People 2020 goal (20%).

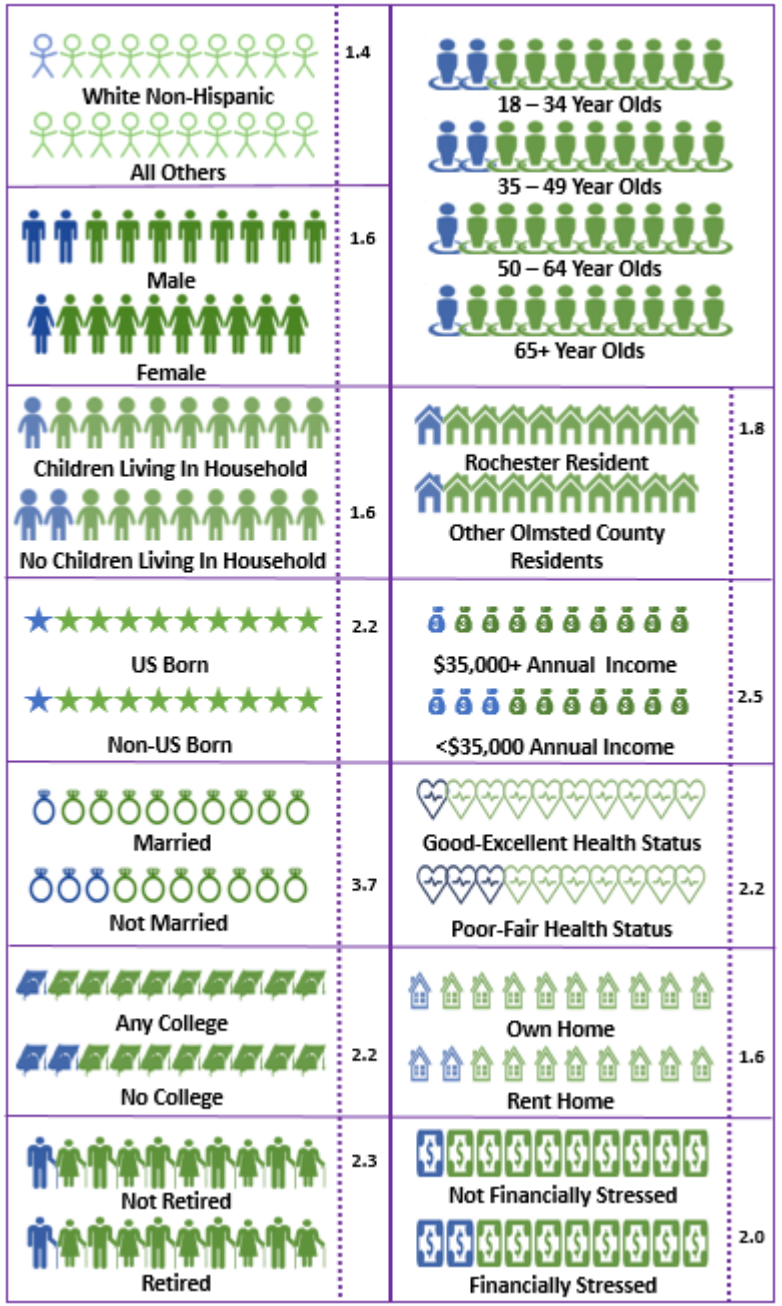



## Health Disparities

Adult males in Olmsted County have higher tobacco use rates than females (16.5% vs 10.2%). Gender disparities exist among adolescents as well, with 11% of males and 8% of females currently using tobacco.

According to local data, tobacco use health disparities currently exist among certain subpopulations throughout Olmsted County. Individuals not married; those living in households with annual incomes less than $35,000; and non-retired individuals are most likely to use tobacco.

## Tobacco Use Health Disparities




# TOBACCO USE

# BINGE DRINKING

## Definition

Binge drinking is the practice of consuming large quantities of alcohol in a single drinking session.

This assessment focuses on two metrics: (1) Olmsted County CHNA Survey female respondents were asked 'During the past 30 days, how many times did you have four or more drinks on an occasion?' and males were asked 'During the past 30 days, how many times did you have five or more drinks on an occasion?'; and (2) Minnesota Student Survey respondents were asked if they had five or more drinks in a row on at least one occasion within the last two weeks.

## Data Sources

Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, Youth Risk Behavior Surveillance System, and Vital Signs; Healthy People 2020; Minnesota Department of Health, Minnesota Student Survey; Olmsted County CHNA Surveys

## Community Health Importance

Binge drinking can lead to risky behaviors, chronic disease and injury. Binge drinking is the most common pattern of excessive alcohol use in the United States. Most people who binge drink are not alcohol dependent.

- *Centers for Disease Control and Prevention Binge Drinking Fact Sheet*

## What does this Health Factor Influence or Impact?

Alcohol use has major impacts on individuals, families, and communities. The effects of its use and abuse are cumulative - significantly contributing to costly social, physical, mental and public health problems including: social, legal and physical problems; unwanted, unplanned, and unprotected sexual activity; physical and sexual assault; alcohol-related car crashes and other unintentional injuries; crime; abuse of other drugs; changes in brain development that may have life-long effects; and death from alcohol poisoning.

## Community Assets

Current community initiatives and organizations working toward reducing binge drinking, include: higher education institutions; law enforcement (Towards Zero Deaths); Mothers Against Drunk Driving; Olmsted County Public Health Services; recovery organizations; and Whitewater Country Coalition.

## Community Perception

**Level of Threat/Issue**

Slight → Moderate → Significant → Severe/Extreme

***7% of prioritization participants feel binge drinking is one of the top health issues impacting Olmsted County residents***

## Area of Greatest Opportunity

Reducing youth's easy social access to alcohol (i.e., getting alcohol from older friends, at parties, etc.) would substantially reduce consumption of alcohol among adolescents. Additionally, evidence-based strategies such as limited days and hours of alcohol sales should be continued.

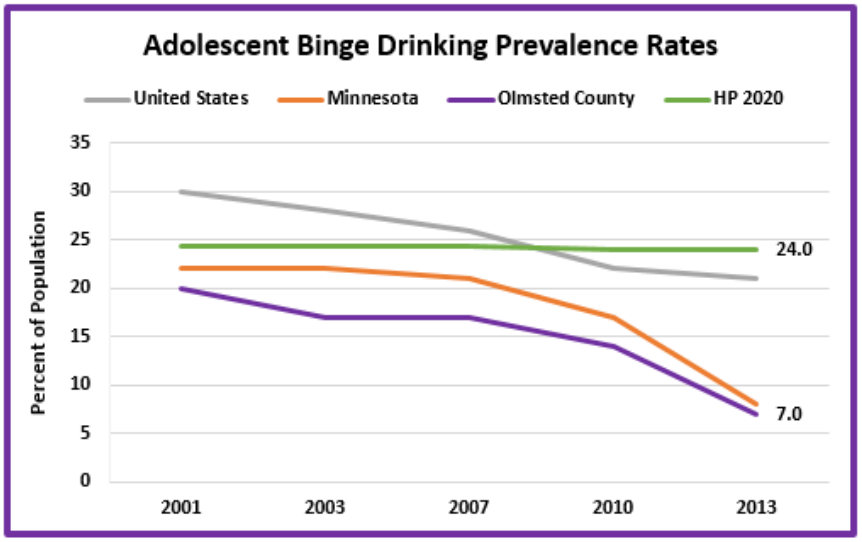
## Trend Data with Goal

***Adult Binge Drinking***

Information gathered from the Olmsted County CHNA Survey indicates that **26.4%** of Olmsted County adults reported binge drinking behavior in the last 30 days. This compares to 19.5% of adults in Minnesota and 16% of United States adults. Olmsted County adults that currently drink alcohol, drink an average of 9.5 days in a month.

***Adolescent Binge Drinking***

The rate of adolescents reporting having five or more drinks in a row on at least one occasion within the last two weeks (adolescent binge drinking) has decreased drastically since 2001; the current rate is at **7%**. Binge drinking prevalence among adolescents in Olmsted County is three times lower than United States adolescents.

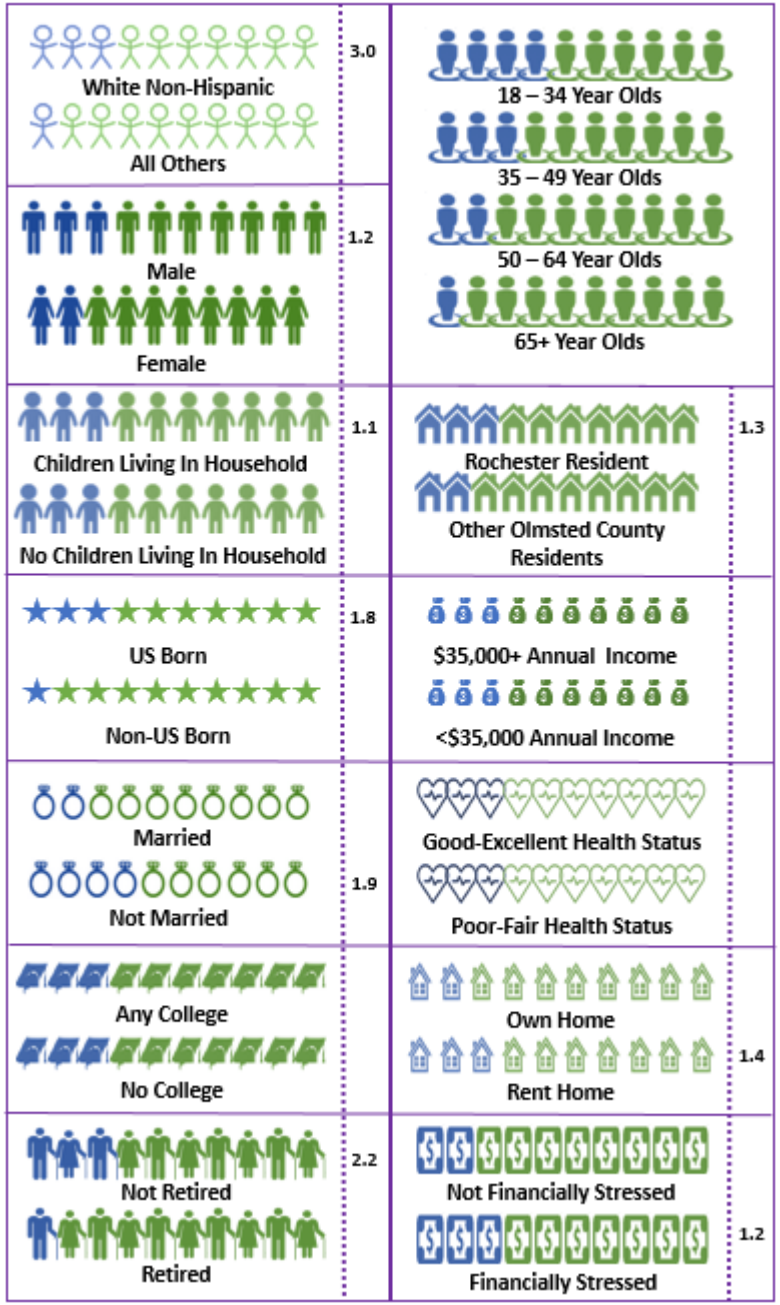




## Health Disparities

For Olmsted County adolescents, current binge drinking in 11th graders (13%) is more than four times higher than 8th graders (3%). There are no notable differences between male and females binge drinking.

According to local data, health disparities currently exist among certain subpopulations throughout Olmsted County. White, non-Hispanic individuals; non-retired individuals; those not married; and those who were born in the United States are more likely to have binge drinking behaviors.

## Adult Binge Drinking Health Disparities




# BINGE DRINKING

# FRUIT & VEGETABLE CONSUMPTION

## Definition

An individual meeting the national guidelines for fruits and vegetables needs to consume at least five combined daily servings.

This assessment focuses on two metrics: (1) Olmsted County CHNA Survey respondents were asked separately: 'On average, how many servings of fruit (vegetables) do you consume daily?'; and (2) Minnesota Student Survey respondents were asked: During the last seven days: 'How many times did you eat fruit?', 'How many times did you eat green salad, potatoes, carrots or other vegetables', and 'How many times did you drink 100% fruit juices, such as orange, apple or grape juice?'.

## Data Sources

Centers for Disease Prevention and Control, Behavioral Risk Factor Surveillance System; Healthy People 2020; Minnesota Student Survey; Olmsted County CHNA Survey

## Community Health Importance

Healthful diets and body weights are directly related to health status. Good nutrition is important to the growth and development of children. There are many future health and life risks, implications, and consequences associated with consuming an unhealthy diet - which includes those without adequate fruits and vegetables.

## What does this Health Factor Influence or Impact?

Healthy diets rich in fruits and vegetables have been shown to reduce many health conditions, including: overweight and obesity, heart disease, high blood pressure, hyperlipidemia, type II diabetes, oral disease and some cancers.

## Community Assets

Current community initiatives and organizations promoting eating more fruits and vegetables include: Farm to School programs; Farmers Market expansions and the acceptance of Electronic Benefits Transfer (EBT); Mayo Field Healthy Concessions; Olmsted County Public Health Services, Statewide Health Improvement Plan (SHIP); Regional Food Policy Council; and Rochester Community and Technical College, Eat Smart, Be Smart.

## Community Perception

**Level of Threat/Issue**

Slight → Moderate → Significant → Severe/Extreme

***11% of prioritization participants feel fruit and vegetable consumption is one of the top health issues impacting Olmsted County residents***

## Area of Greatest Opportunity

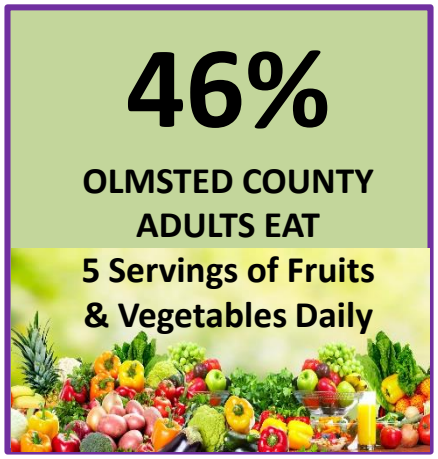
Diet reflects the variety of foods and beverages consumed over time and in settings such as worksites, schools, restaurants, and the home. Interventions to support a healthier diet potentially include: promoting the availability of healthier food retailers in communities, promoting the availability of healthier foods and nutrition services in schools, and encouraging overall food system support.

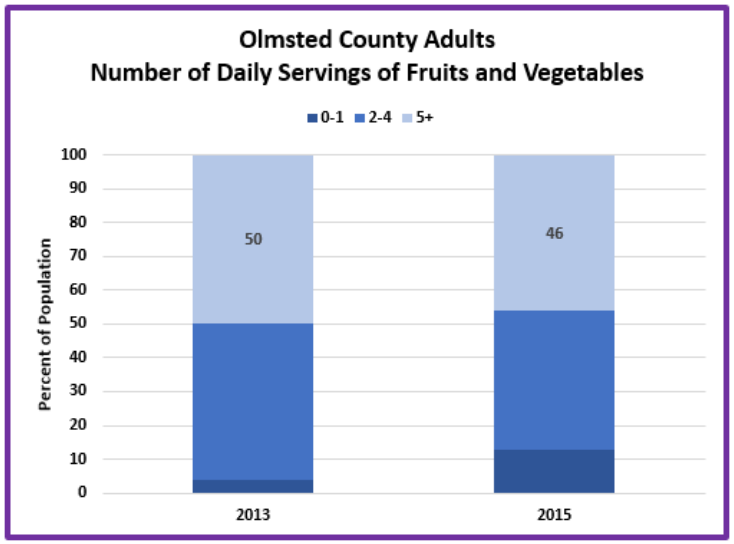
## Trend Data with Goal

According to the most recent survey data available (Behavioral Risk Factor Surveillance System, 2013), approximately 61.8% of Minnesota and 60.8% of United States adults meet the fruit dietary guidelines. This number increases to 76.4% and 76.9% respectively with vegetable guidelines.

Information gathered from the Olmsted County CHNA Survey indicates that **46%** of Olmsted County adults currently meet the recommended guidelines of eating five or more servings of fruits and vegetables.

The 2013 Minnesota Student Survey data shows that only **8%** of Olmsted County youth and adolescents get five or more servings of vegetables and **11%** get five or more servings of fruits on an average day .

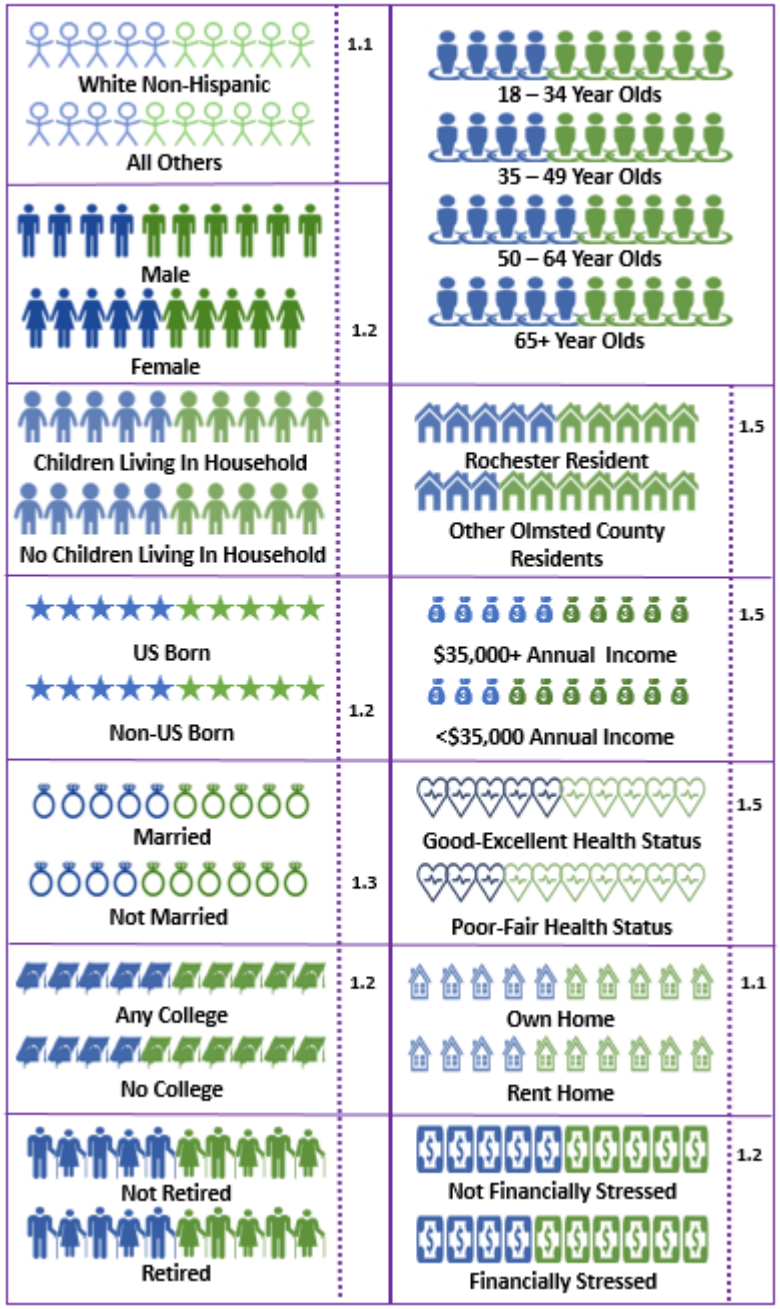



## Health Disparities

According to local data, fruit and vegetable consumption health disparities currently exist among certain subpopulations throughout Olmsted County. Those with good, very good or excellent health status; individuals living in households with higher than $35,000 annual income; and those individuals that are Rochester residents are more likely to meet the recommended nutritional guidelines.

## Fruits and Vegetables – Meeting Guidelines Health Disparities




# FRUIT & VEGETABLE CONSUMPTION

# SCHOOL FOOD ENVIRONMENT

Note: School Food Environment is under further data development.

## Definition

School food environments consist of many different factors all relating to food presence and availability at school, including lunch (breakfast) program, vending machines, concessions, gardens, and advertising (i.e. posters).

All school districts participating in federal school meal programs are required to create and implement school wellness policies. These policies must address nutrition education and standards; standards for the United States Department of Agriculture school meals; physical education and physical activity; wellness promotion and marketing; and measures for evaluating the policy's effectiveness.

This assessment focuses on two metrics: (1) Minnesota Student Survey respondents were asked where they eat lunch; and (2) the strength and comprehensiveness of the school's wellness policies, through WellSat:2.0, calculated by Olmsted County Public Health Services.

## Data Sources

Centers for Disease Control and Prevention, Children's Food Environment State Indicator Report; Healthy People 2020; Minnesota Department of Health, Minnesota Student Survey; United States Department of Agriculture; WellSAT:2.0

## Community Health Importance

The environments to which children are exposed in their daily lives - schools, homes, and their communities - can influence the healthfulness of their diets. For many children, the majority of their daylight hours are spent in school or at school-related functions. Therefore, schools are uniquely positioned to facilitate and reinforce healthful eating behaviors among children by providing a vast array of healthy foods offered at school.

## What does this Health Factor Influence or Impact?

The school lunch and breakfast program contribute to the nutritional intake of children. The structured menu requires a healthy diet - high in fruits, vegetables, whole grains, and dairy. Children who experience eating balanced meals during formative years will help establish good eating habits.

## Community Assets

Current community initiatives and organizations working toward improving the school food environment include: Olmsted County Public Health Services, Statewide Health Improvement Plan (SHIP) - school gardens and healthy snack carts; and school districts.

## Community Perception

**Level of Threat/Issue**

Slight → Moderate → Significant → Severe/Extreme

***11% of prioritization participants feel school food environment is one of the top health issues impacting Olmsted County residents***

## Area of Greatest Opportunity

When school policies favor healthy classroom snacks, celebrations, vending, and fundraisers, children are exposed to fewer high calorie, non-nutritious foods and beverages, thus supporting the nutrition education messages they learn in school.

Work should be done to strengthen and make the school wellness policies more comprehensive including language about recess as a reward, specifying how long recess is and how the policies will be evaluated and updated.

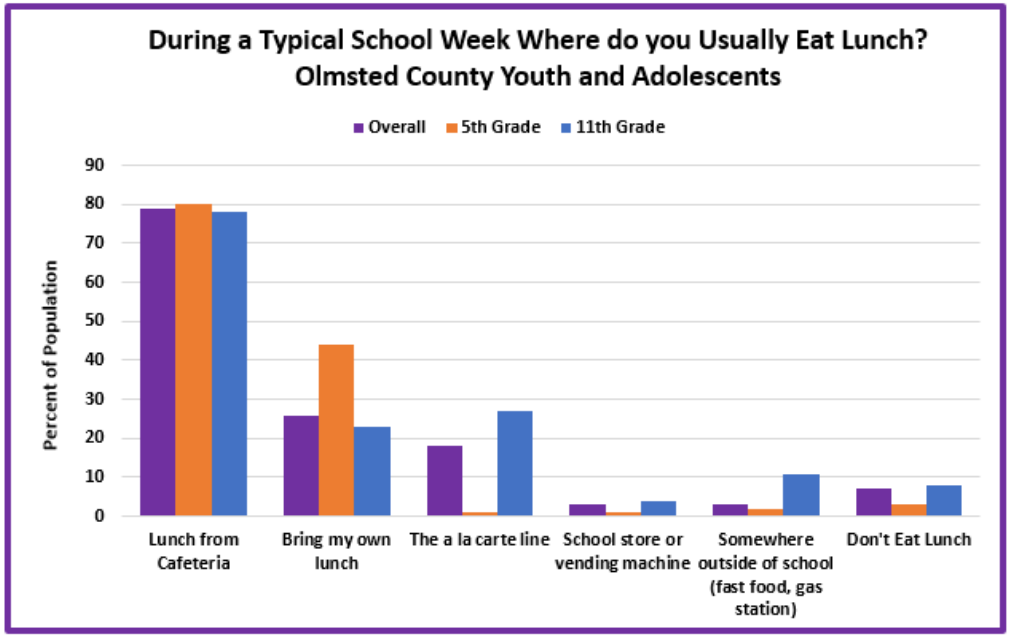
## Trend Data with Goal

The 2013 Minnesota Student Survey reports that 80% of students in 5th grade eat school lunches and 44% bring their lunch; 78% of 11th grade students eat school lunches and 23% bring their lunch.

During the 2014-2015 school year, 36% of Olmsted County students participated in the free or reduced lunch program; this compares to 38% in Minnesota and 70.5% nationally.

Olmsted County public schools received an average comprehensive score of 39 (out of 100); this reflects the extent to which recommended content areas are covered in the wellness policy. Olmsted County public schools received an average strength score of 29.5 (out of 100); this describes how strongly the content is stated.

*Refer to Supplemental Document, Appendix N for a summary describing these two scores.*




Note: Percentage does not equal 100% due to students being able to check more than one.


## Health Disparities

*Limited local data is available - this data does not allow for any demographic data breakdown; therefore, differences between subpopulations is not available.*

# PHYSICAL ACTIVITY

## Definition

For this assessment, physical activity is a combination of moderate and vigorous physical activities. National guidelines for adults are met (not including muscle strength training) when an individual has at least 150 minutes (ex: five days of 30 minutes) of moderate activity or at least 75 minutes (ex: four days of 20 min) of vigorous activity.

This assessment focuses on two metrics: (1) Olmsted County CHNA Survey respondents were asked: 'During an average week, whether at work, at home, or anywhere else, how many days do you get at least 30 [20] minutes of moderate [vigorous] physical activity throughout the day?'; and (2) Minnesota Student Survey respondents were asked 'During the last seven days were you active for 60 minutes all seven days?' (meeting guidelines was not assessed).

## Data Sources

Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System; Healthy People 2020; Minnesota Department of Health, Minnesota Student Survey; Olmsted County CHNA Surveys

## Community Health Importance

Regular physical activity can improve the health and quality of life for all ages, regardless of the presence of a chronic disease or disability.

## What does this Health Factor Influence or Impact?

Among adults, physical activity can lower the risk of early death, coronary heart disease, stroke, high blood pressure, type II diabetes, breast and colon cancer, falls, and depression.

## Community Assets

Current community initiatives and organizations promoting physical activity include: Olmsted County Public Health Services, Statewide Health Improvement Program (SHIP); Worksite Wellness; YMCA; and health clubs.

## Community Perception

**Level of Threat/Issue**

Slight → Moderate → Significant → Severe/Extreme

***31% of prioritization participants feel physical activity is one of the top health issues impacting Olmsted County residents***

## Area of Greatest Opportunity

Physical activity levels are positively affected by structural environments, such as the availability of sidewalks, bike lanes, trails, and parks; and legislative policies that improve access to facilities that support physical activity.

## Trend Data with Goal

The percentage of Minnesota and United States adults engaging in moderate physical activity has generally increased over the past decade. According to the most recent survey data available (Behavioral Risk Factor Surveillance System, 2014), 80% of Minnesota and 77% of United States adults are meeting the moderate physical activity guidelines.

Information gathered from the Olmsted County CHNA Survey indicates that **50.2%** of Olmsted County adults currently meet the recommended national guidelines for physical activity (includes moderate and vigorous activities). This is a slight increase from 2013 (48%).

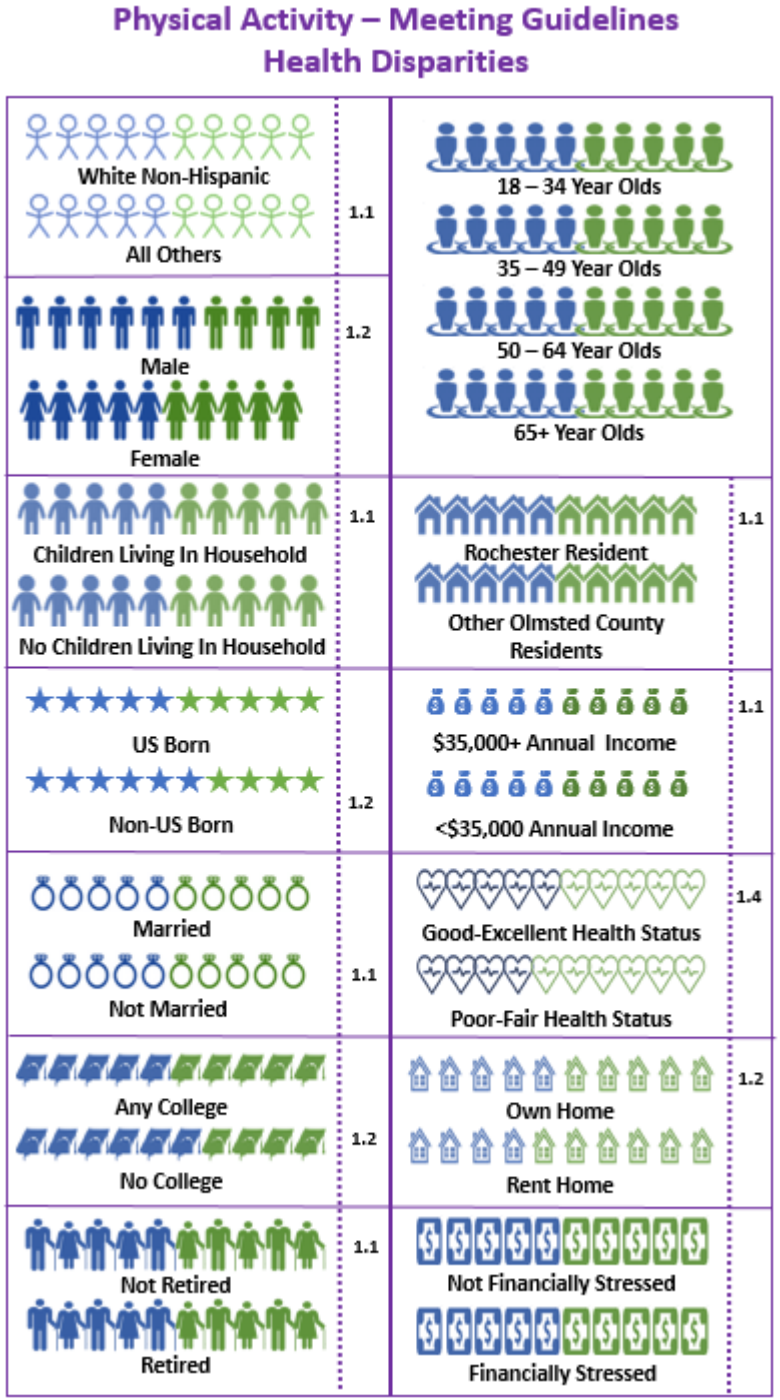
The 2013 Minnesota Student Survey data shows that **20%** of Olmsted County youth and adolescents were active the last seven days for 60 minutes on all seven days; this is lower than Minnesota and the United States (25% and 27%, respectively).



## Health Disparities

Factors negatively associated with adult physical inactivity include advancing age, low income, lack of time, low motivation, rural residency, perception of effort needed for exercise, overweight or obesity, perception of poor health, and being disabled.

According to local data, limited physical activity health disparities currently exist among certain subpopulations throughout Olmsted County. Individuals with good, very good, or excellent health status are more likely to partake in physical activity.



# INJURY PREVENTION

## Definition

For this assessment, injury prevention focuses on driving behaviors and distracted driving. Distracted driving is defined as any activity that could divert a person's attention away from the primary task of driving including cellphone use, texting and eating.

This assessment focuses on three metrics: (2) traffic fatalities caused by driving under the influence (DWI and 'Not a Drop' violations); (2) teen distracted driving; and (3) teen seat belt use.

## Community Assets

Current community initiatives and organizations working toward injury prevention include: Olmsted County Sheriff's Office; Rochester Police Department; and Towards Zero Deaths.

## Data Sources

Behavioral Risk Factor Surveillance System, Centers for Disease Control and Prevention; Minnesota Department of Health, Minnesota Student Survey; Minnesota Department of Public Safety; National Highway Traffic Safety Administration; United States Department of Transportation, Distraction.gov

## Community Perception

**Level of Threat/Issue**

Slight → Moderate → Significant → Severe/Extreme

***10% of prioritization participants feel injury prevention is one of the top health issues impacting Olmsted County residents***

## Community Health Importance

Traffic crashes are the leading cause of death for American youth and adolescents. When it comes to distracted driving, young people are among the most likely to text and talk behind the wheel. All distractions endanger driver, passenger, and bystander safety, but because text messaging requires visual, manual, and cognitive attention from the driver, it is by far the most dangerous distraction.

## Area of Greatest Opportunity

Continuing to promote and enforce current laws around seat belt use, distracted driving and drinking under the influence will help to reduce injuries and deaths related to distracted and impaired driving and lack of seat belt use. Focus should also be on implementing evidence-based strategies such as wider use of ignition interlock devices and more media campaigns against distracted and alcohol impaired driving.

## What does this Health Factor Influence or Impact?

Lack of seat belt use, distracted driving and driving under the influence can lead to serious injury and death and can have further repercussions such as financial and emotional stress, disability and potential criminal implications.

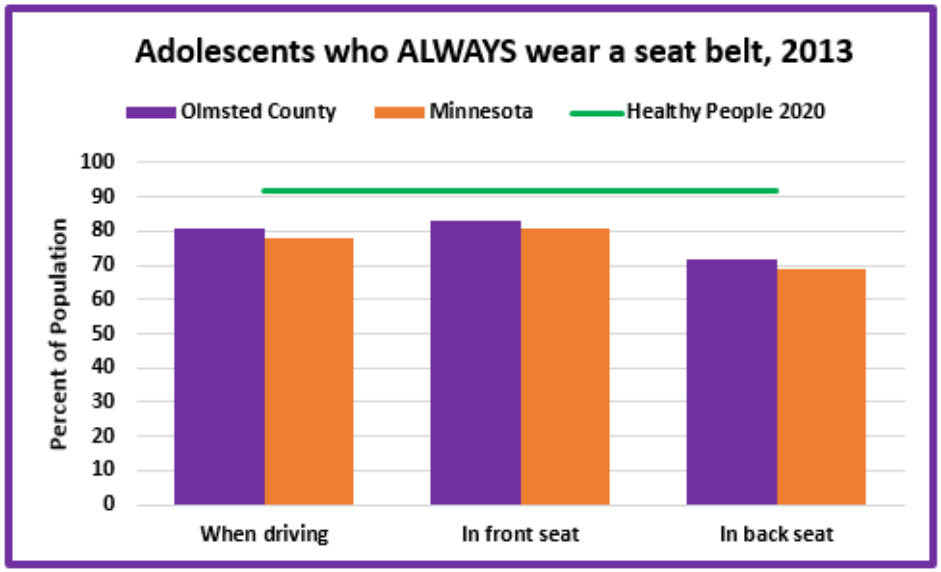
## Trend Data with Goal

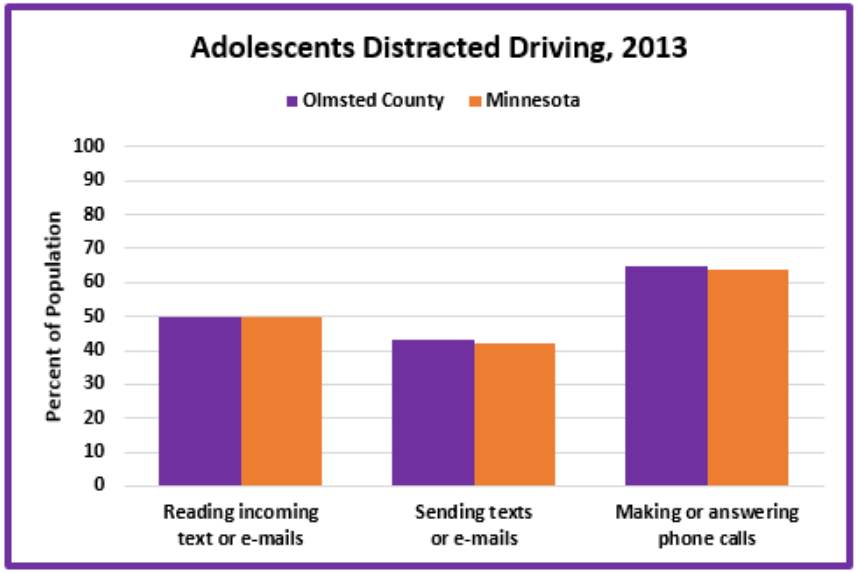
From 2012 to 2014, **36%** of traffic fatalities and severe injuries in Olmsted County were related to vehicle occupants not wearing a seat belt. This compares to 23% being speed-related and **18%** caused by driver inattentiveness. Centers for Disease Control and Prevention reports that of the teens aged 13 to 20 years, who died in vehicle crashes in 2013, approximately 56% of them were not wearing a seat belt at the time of the crash. Behavioral Risk Factor Surveillance System (BRFSS) data from 2014 shows that 89.3% of Minnesota residents and 85.5% of United States residents always wear a seat belt.

BRFSS data from 2010 shows that 1.9% adults nationwide and 1.8% Minnesota adults reported that they drove after drinking too much (in the past 30 days).

According to the Minnesota DOT 2010-2014 report, 3.4% of all crash deaths in Olmsted County were alcohol-related. During this same time frame, Olmsted County saw a total of 3,914 DWI incidents. Nationwide, nearly one-third of all traffic-related deaths are from alcohol-impaired driving crashes each year. According to the 2013 Minnesota Student Survey, **80%** of Olmsted County youth and adolescents always wear a seat belt while either driving or riding in the front seat.

In 2014, Nationwide, 3,179 people were killed, and 431,000 were injured in motor vehicles crashes involving distracted drivers. The National Highway Traffic Safety Administration reports that 10% of all drivers 15 to 19 year olds involved in fatal crashes were reported as distracted at the time of the crashes. According to the 2013 Minnesota Student Survey, half of Olmsted County youth and adolescents reported reading incoming texts or e-mails while driving; **43%** of Olmsted County youth and adolescents send texts or e-mails while driving.




## Health Disparities

The most recent data from Centers for Disease Control and Prevention reports that men are 10% less likely to wear seat belts than women and that adults age 18-34 are less likely to wear seat belts than adults age 35 or older.

More males (3.2 per 100,000) were killed in crashes involving a drunk driver in Minnesota than females (1.2 per 100,000). This holds true nationwide, with male death rates being 5.2 and female 1.5 (2012).

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# HEALTH FACTORS
# Clinical Care


Insurance Coverage

Colorectal Cancer Screening


Mammography in Women

Routine Dental Care

Immunizations

Diabetes Management

# IMMUNIZATIONS

## Definition

Immunization is a process by which people become protected against infectious diseases through administration of a vaccine.

This assessment focuses on two metrics: (1) current levels of immunizations, including annual influenza; and the recommended childhood immunization series; and (2) local rates of infectious diseases.

## Data Sources

Centers for Disease Control and Prevention, National Immunization Survey; Healthy People 2020; Minnesota Department of Health; SE MN Immunization Connection; United States Health and Human Services, Health Indicators Warehouse

## Community Health Importance

Vaccinations allow protection from an infectious disease. Vaccinations immunize the population to decrease the prevalence of disease in the community. With increased vaccination rates there can be an elimination or eradication of certain infectious diseases (small pox) or potentially certain cancers (cervical cancer).

Immunization recommendations in the United States currently target 17 vaccine preventable diseases across the lifespan (from 2013).

## What does this Health Factor Influence or Impact?

Vaccines are among the most cost-effective clinical preventive services and are a core component of any preventive services package. For example, childhood immunization programs provide a very high return on investment. For each birth cohort vaccinated with the routine immunization schedule, society saves 33,000 lives; prevents 14 million cases of disease; reduces direct healthcare costs by $9.9 billion; and saves $33.4 billion in indirect costs.

Despite progress, approximately 42,000 adults and 300 children in the United States die each year from vaccine-preventable diseases. Communities with pockets of unvaccinated and under-vaccinated populations are at increased risk for outbreaks of vaccine-preventable diseases. The emergence of new or replacement strains of vaccine-preventable disease can result in a significant increase in serious illnesses and death.

## Community Assets

Current initiatives and organizations offering immunizations include: Community Health Services; individual provider offices; Mayo Clinic Rochester; Minnesota Vaccines for Children; Olmsted Medical Center; Olmsted County Public Health Services; pharmacies; school-based immunization clinics; and Southeast Minnesota Immunization Connection (SEMIC).

## Community Perception

**Level of Threat/Issue**

Slight → Moderate → Significant → Severe/Extreme

***16% of prioritization participants feel immunizations is one of the top health issues impacting Olmsted County residents***

## Area of Greatest Opportunity

In the coming decade, the United States will continue to face new and emerging issues in the area of immunization and infectious diseases. The public health infrastructure must be capable of responding to emerging threats. State-of-the-art technology and highly skilled professionals need to be in place to provide rapid response to the threat of epidemics. A coordinated strategy is necessary to understand, detect, control and prevent infectious diseases. Efforts are needed to continue coordinated work with local public health and private partners to improve and sustain immunization coverage, including these possible tactics: client reminder and recall systems; immunizing children, adolescents and adults at every opportunity in health visits and school or community located programs; improving immunization laws for child care and school attendance; and continued use of the state immunization information system.

## Trend Data with Goal

***Childhood Immunization Series***

It is recommended that all children receive the childhood immunization series to protect against a variety of vaccine-preventable diseases. In 2014, **82%** of Olmsted County children ages 24-35 months were fully vaccinated with the recommended childhood immunization series. Since 2010, Olmsted County has seen a steady increase of children up-to-date with all recommended immunizations.

*Refer to Supplemental Document, Appendix M for a full listing of the childhood recommended immunization series.*

Olmsted County's childhood immunization series rate is now exceeding the Healthy People 2020 goal of 80%.

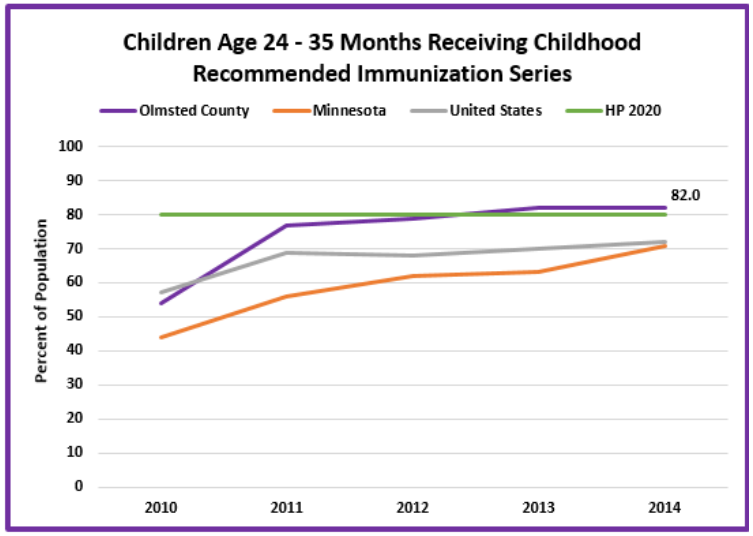
***Influenza Vaccine***

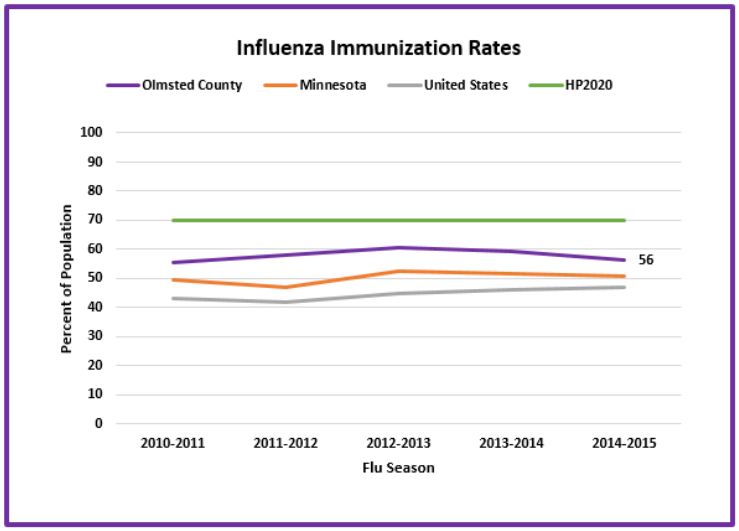
During the 2014-2015 influenza season, **56%** of Olmsted County's population (6 months +) was vaccinated against seasonal influenza. Olmsted County continues the stable trend of approximately 55% of the population being immunized annually to protect against influenza.

***Vaccine Preventable Diseases***

Two notable vaccine-preventable diseases that have impacted Olmsted County over the past few years are pertussis and varicella. Pertussis occurs and naturally peaks in three to five year cycles. Olmsted County continues to see this seasonal trend. Since 2010, Olmsted County experiences an average of 36 pertussis cases annually (19-237 range; 36 median). Since 2013, Olmsted County had an average of nine varicella cases (6-12 range; 9 median).

*For a complete snapshot of vaccine preventable diseases in Olmsted County contact Olmsted County Public Health Services.*




## Health Disparities

During the 2014-2015 influenza season, the highest percentage of Olmsted County residents receiving an influenza vaccine were individuals ages 65 years and older (82.0%), followed by six months through four years (72.3%). The age group with the lowest influenza vaccine rate was 19 to 24 year olds at 36.6%. There is a current disparity in measles, mumps and rubella rates seen among Somali children. In Olmsted County, non-Somali childhood MMR rate is about 90%; whereas Somali childhood MMR rate is about 75%.

# INSURANCE COVERAGE


## Definition

For this assessment, insurance coverage refers to prescription and dental care insurance which may include insurance from both private and public payers. This insurance may cover outpatient, inpatient, preventive, acute and chronic care; and prescription medicine. Many insurance programs have co-pays or deductibles that are the patient's responsibility.

This assessment focuses on the proportion of residents who have dental and/or prescription insurance coverage, assessed through the Olmsted County CHNA Survey.

## Data Sources

United States Census Bureau, American Community Survey; Minnesota Department of Health, Minnesota Health Access Survey; Olmsted County CHNA Surveys

## Community Health Importance

Inadequate insurance coverage is one driver of overall health status. Lack of insurance is a primary barrier to healthcare access including regular primary care, specialty care, and other health services that contributes to poor health status. Insurance coverage is most important for those individuals who are seeking healthcare for reasons of symptoms and illnesses or for preventive care. While some people can afford to pay out of pocket for healthcare expenses, most cannot and therefore may delay or not seek medical care when needed.

## What does this Health Factor Influence or Impact?

Health insurance coverage helps patients get into the healthcare system. Uninsured people are less likely to receive medical care, more likely to die early, and more likely to have poor overall health status. Lack of adequate coverage makes it difficult for people to get the healthcare they need and, when they do get care, burdens them with large medical bills. Lack of health insurance may be a personal choice, but for most individuals it is a result of lack of access to employer-supported insurance, lack of employment, an inability to obtain state or federally supported health insurance, or an inability to afford private insurance.

## Community Assets

Current community initiatives and organizations working on insurance coverage include: Community Health Services; Good Samaritan Clinics; Hawthorne Health Services; Mayo Clinic REACH Clinic; MN Care; MNSure (Minnesota health insurance marketplace/exchange); Olmsted County Community Action Program; Olmsted County Financial Services; Olmsted County Public Health Services; and Vaccine for Children program.

## Community Perception

**Level of Threat/Issue**

Slight → Moderate → **Significant** → Severe/Extreme

***26% of prioritization participants feel insurance coverage is one of the top health issues impacting Olmsted County residents***

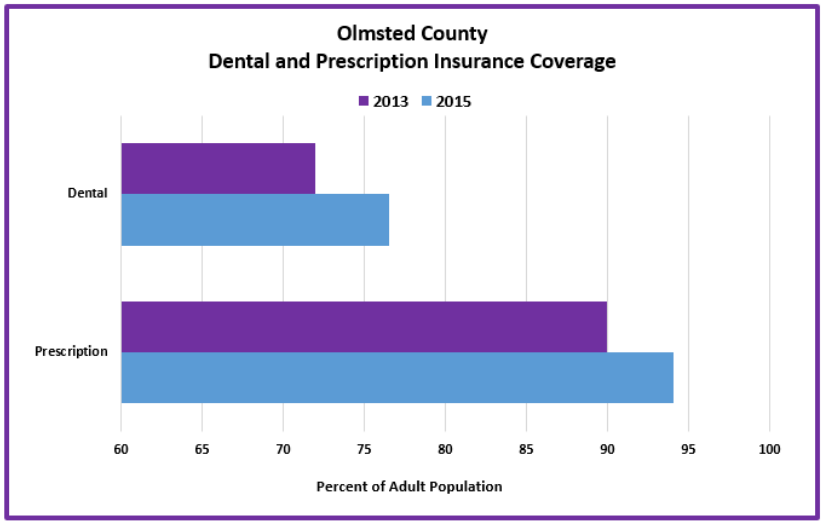
## Area of Greatest Opportunity

Insurance coverage helps people get into the health or dental system. An overall goal is to have the community seek and maintain regular, preventive health and dental care. Beyond increasing the actual level of insurance coverage, there are potential opportunities to increase overall access to both medical and dental care. These opportunities include increasing the capacity of community health programs that provide preventative oral health services; increasing the number of community health centers; and increasing the number of people who have a healthcare home.

## Trend Data with Goal

From the most recent Minnesota Health Access Survey data (2015), **94.3%** of Olmsted County residents and 95% of Minnesota residents have health insurance coverage. At a national level, 88.3% of United States residents have health insurance.

Information gathered from the Olmsted County CHNA Survey indicates that **75.6%** of Olmsted County adults currently have insurance for both dental and prescription coverage. Insurance coverage within Olmsted County continues to increase. From 2013 to 2015, dental insurance increased from 72% to **77%**; prescription coverage increased from 90% to **94%**.

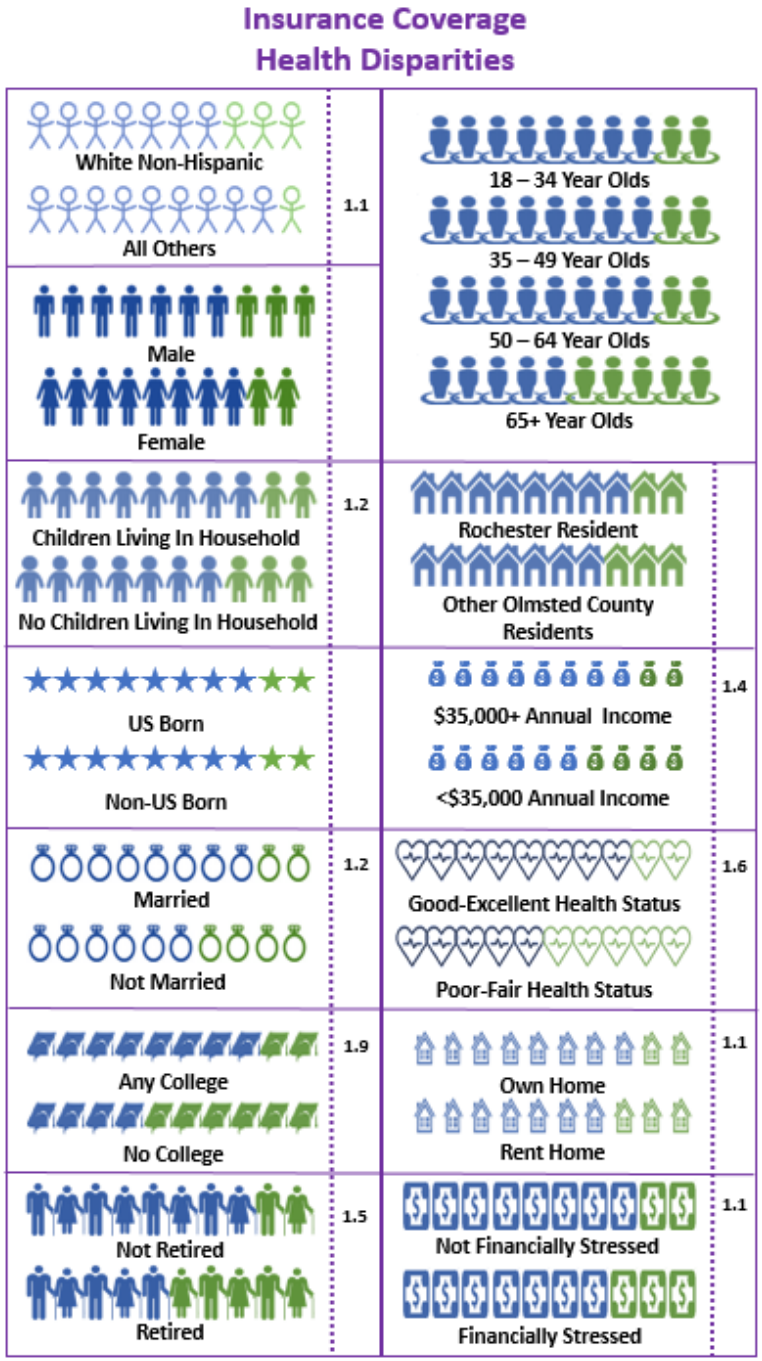



## Health Disparities

Individuals with lower household incomes, those with high healthcare expenditures, and those unable or unwilling to apply for public healthcare assistance appear to have lower rates of insurance.

In 2014, at a national level, non-Hispanic whites have a higher rate of health insurance coverage at 92.4% . Hispanics had the lowest rate of health insurance coverage at 80.1%. Local data shows that those who have attended college are two times more likely to have insurance coverage than those who have not attended college.

According to local data, insurance coverage health disparities currently exist among certain subpopulations throughout Olmsted County. Those individuals with any college; individuals reporting good, very good or excellent health status; non-retired individuals; and households with an annual income above $35,000 are more likely to have both dental and prescription insurance coverage.




# INSURANCE COVERAGE

# ROUTINE DENTAL CARE

## Definition

Dental care is any oral healthcare received by a dentist, dental hygienist, or any other healthcare professional specializing in oral health.

This assessment focuses on the number of residents who visited a dental provider in the last year, assessed through the Olmsted County CHNA Survey.

## Data Sources

Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, National Health and Nutrition Examination Survey; Healthy People 2020; Olmsted County CHNA Surveys

## Community Health Importance

Dental health influences overall health and is related to other health conditions such as heart disease and other inflammatory conditions. In addition, poor dental health can lead to loss of teeth which affects not only the ability to chew food and determination of which foods can be easily eaten, but also jaw and facial health and alignment. Engaging in preventive dental health decreases the likelihood of developing future oral health problems.

## What does this Health Factor Influence or Impact?

Many Americans do not have access to preventive programs. People who have the least access to preventive services and dental treatment have the greatest rates of oral diseases.

## Community Assets

Current community initiatives and organizations working toward routine dental care include dental offices; Children's Collaborative; Community Dental Care; Good Samaritan Dental Clinic; and school clinics.

## Community Perception

**Level of Threat/Issue**

Slight → Moderate → Significant → Severe/Extreme

***7% of prioritization participants feel routine dental care is one of the top health issues impacting Olmsted County residents***

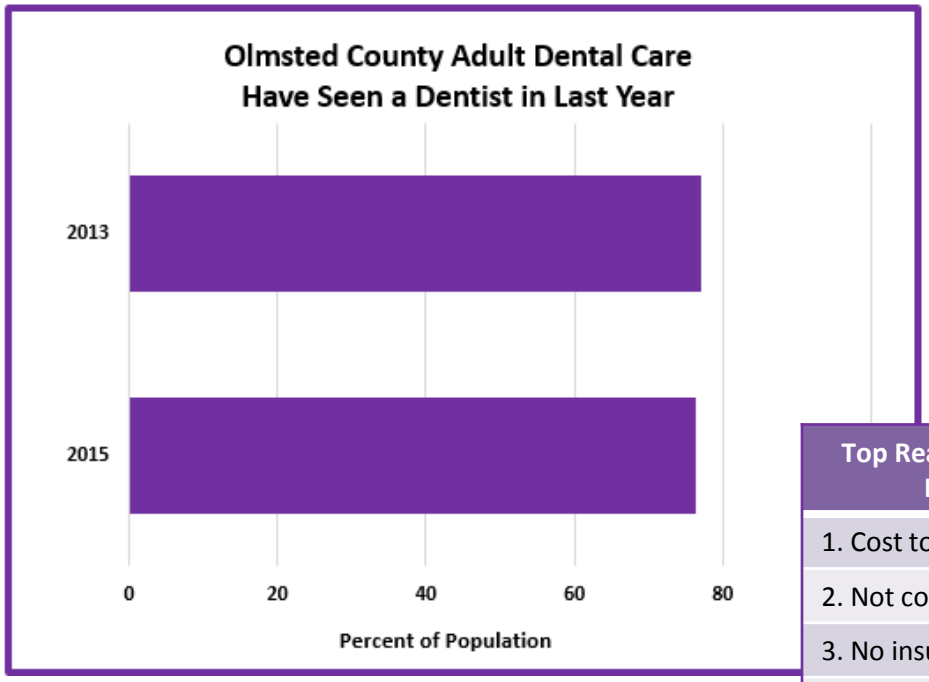
## Area of Greatest Opportunity

Lack of access to dental care of all ages and income levels remains a challenge. A potential strategy to address this issue is to increase the number and capacity of dental clinics that accept underinsured and uninsured individuals.

## Trend Data with Goal

In 2014, the proportion of Minnesota adults accessing annual dental services was 72.6%; compared to the United States at 65.3%.

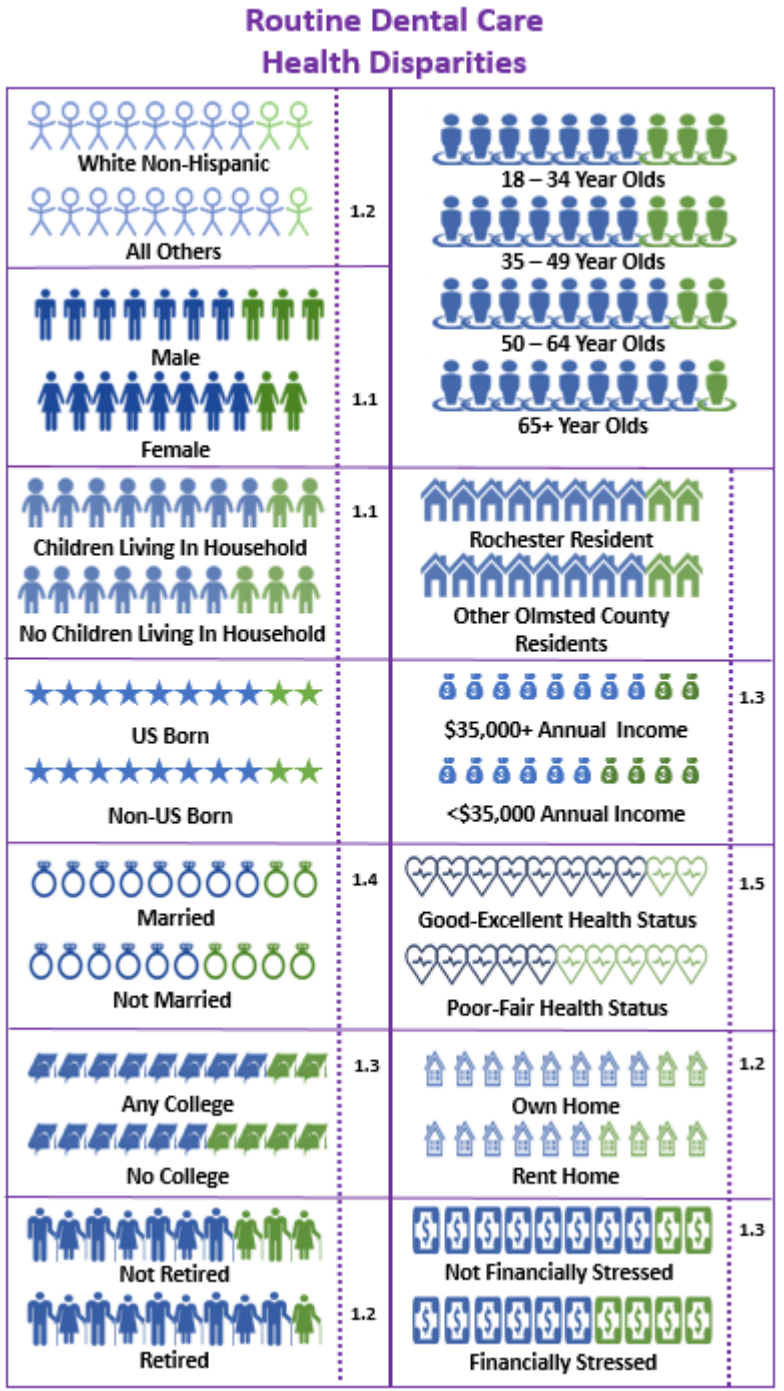
According to the Olmsted County CHNA Community Survey, **76%** of Olmsted County adults have seen a dentist in the last 12 months. Of all survey respondents, just over 15% stated they needed dental care but didn't get it or delayed getting it. Of the nearly 25% that did not see a provider in the last 12 months, 26.3% stated they needed dental care but delayed getting it, with the top reason being the care costs too much.




| Top Reasons for Delaying Dental Care |
|---|
| 1. Cost too much |
| 2. Not covered by insurance |
| 3. No insurance |
| 4. Work/family obligations |

## Health Disparities

A person's ability to access oral healthcare is associated with factors such as education level, income, race, and ethnicity. According to local data, dental health disparities currently exist among certain subpopulations throughout Olmsted County. Those individuals stating good, very good or excellent health status; married individuals; those that have any college; and individuals living in households having an annual income above $35,000 are more likely to seek routine dental care.




# ROUTINE DENTAL CARE

# MAMMOGRAPHY IN WOMEN

Note: Mammography in Women is under further data development.

## Definition

Mammography is a radiographic screening procedure designed to detect breast cancer. There are multiple guidelines available when recommending the timeframe for mammogram screening (i.e. every year, every two years).

This assessment focuses on the proportion of women over 50 who received a mammogram in the last year, assessed through the Rochester Epidemiology Project (REP).

## Data Sources

Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System; Healthy People 2020; National Institute of Health, National Cancer Institute; Olmsted County CHNA Surveys; Rochester Epidemiology Project; United States Census Bureau, American Community Survey; United States Preventive Services Task Force

## Community Health Importance

Except for skin cancers, breast cancer is the most common cancer among American women. Nationwide, about one in eight women (12%) will develop invasive breast cancer during their lifetime.

## What does this Health Factor Influence or Impact?

Breast cancer is detectable through regular screenings. Mammograms find between 85 and 90 percent of breast cancers. Additionally, mammography finds cancers up to two years before they can be physically felt - at a very early stage, when most cancer is curable. Early detection of breast cancer with screening means that treatment can be started earlier in the course of the disease, possibly before the disease has spread.

## Community Assets

Current community initiatives and organizations that promote and provide breast cancer screening, including: Hawthorne's Breast Clinic; Mayo Clinic Rochester; Olmsted Medical Center; and SAGE Program (Breast and Cervical Cancer Screening), Minnesota Department of Health.

## Community Perception

**Level of Threat/Issue**

Slight → Moderate → Significant → Severe/Extreme

***1% of prioritization participants feel mammography in women is one of the top health issues impacting Olmsted County residents***

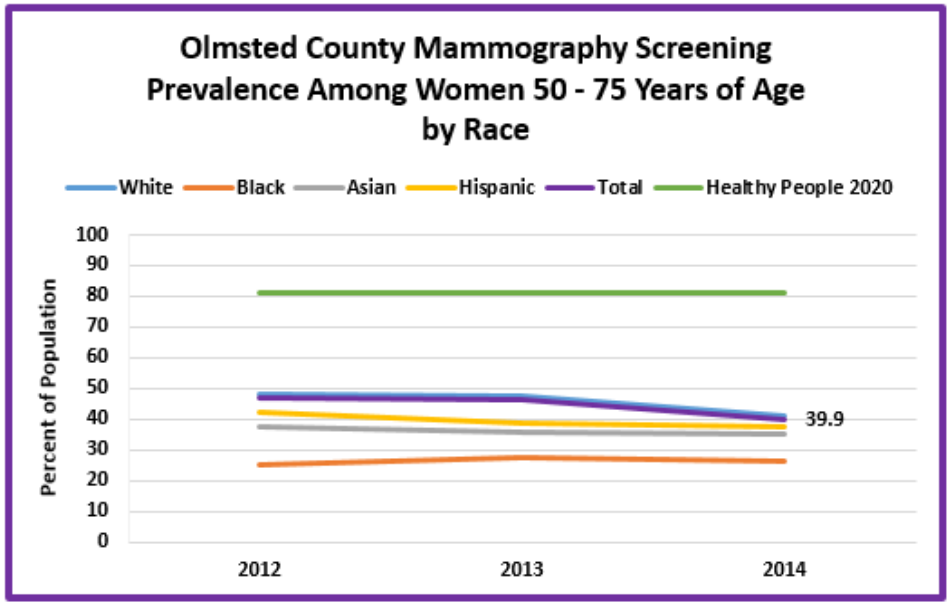
## Area of Greatest Opportunity

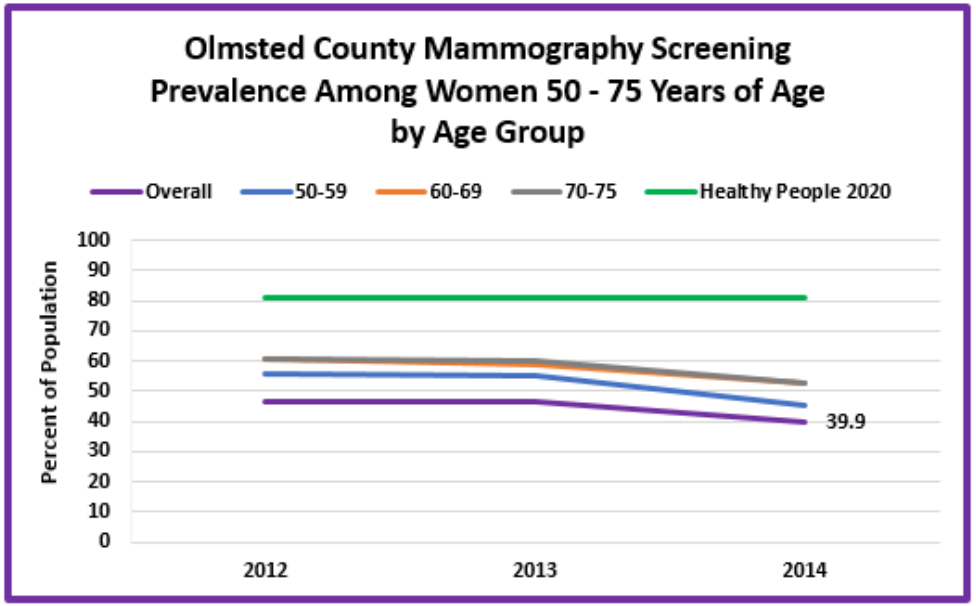
Work should continue to educate woman on the importance of getting routine mammography screenings. Additionally, creation and promotion of educational materials that bring clarity about when women should receive mammography screens needs to be developed.

## Trend Data with Goal

Data gathered from the Rochester Epidemiology Project indicates that nearly **40%** of Olmsted County women 50 to 75 years old received a mammography screening in 2014. This is a 15% decrease from 2013.

Data from 2014 Behavioral Risk Factor Surveillance System shows that 75.6% of women 50 years and older in the United States and 79.5% in Minnesota had a mammogram in the past two years.




*Interpret data with caution, local data is not comparable to Healthy People 2020, Minnesota or the United States. The Healthy People 2020 goal is: Increase the proportion of women (50-74) who receive a breast cancer screening from 73.7% (2008) to 81.1% *(based on the national objective on 'most recent guidelines in 2008')*.

## Health Disparities

As elsewhere in the United States, non-Hispanic white women in Minnesota are at the greatest risk of being diagnosed with breast cancer; however, African American women have the highest associated death rates. Black and Hispanic women are also more likely to be diagnosed with late-stage disease.

In Olmsted County, 26% of black women received a mammography screening in 2014, which is far lower than white women (41%).

# DIABETES MANAGEMENT


Note: Diabetes Management is under further data development.

## Definition

The State of Minnesota has defined five categories for optimal management of patients with diabetes, and as defined as Minnesota community measures**.** These factors have been shown to improve long-term outcomes in patients with diabetes. *Refer to Supplemental Document, Appendix M for a summary of the measures.*

This assessment focuses on two metrics: (1) proportion of diabetics receiving optimal diabetes care, through the Minnesota Community Measurement; and (2) proportion of diabetics having at least one HbA1c test in last six months, through the Rochester Epidemiology Project.

## Data Sources

Centers for Disease Control and Prevention; Healthy People 2020; Minnesota Community Measurement: 2015 Health Care Equity Report; Minnesota Department of Health; Olmsted County CHNA Surveys; Rochester Epidemiology Project

## Community Health Importance

Diabetes affects an estimated 23.6 million people in the United States and is a top leading cause of death. Approximately one in four people with diabetes do not know that they have the disease.

Diabetes impacts all aspects of a patient's life from requiring changes in eating habits and daily monitoring of glucose levels to increasing risk for many other chronic conditions. The healthcare utilization and costs for people with diabetes are much higher than those for people without diabetes since many of those with diabetes are unable to follow the required lifestyle changes and therefore have uncontrolled blood sugars which result in higher rates of complications.

## What does this Health Factor Influence or Impact?

Diabetes management is an important part of overall disease care. Annual tests and screenings include: A1c tests, dental exams, eye exams and foot exams. The A1c test measures average blood sugar levels for the past three months, which is a good reflection of how well the treatment plan is working overall. After a diabetes diagnosis, the A1c test is used to monitor diabetes treatment plans and is ultimately the best indicator and determinant of risk for developing complications of diabetes.

## Community Assets

Current community organizations and initiatives that promote diabetes education, prevention and treatment include: Community Health Services; home care agencies; Mayo Clinic Rochester; medical and public health diabetes education; and Olmsted Medical Center.

## Community Perception

**Level of Threat/Issue**

Slight → Moderate → Significant → Severe/Extreme

***9% of prioritization participants feel diabetes management is one of the top health issues impacting Olmsted County residents***

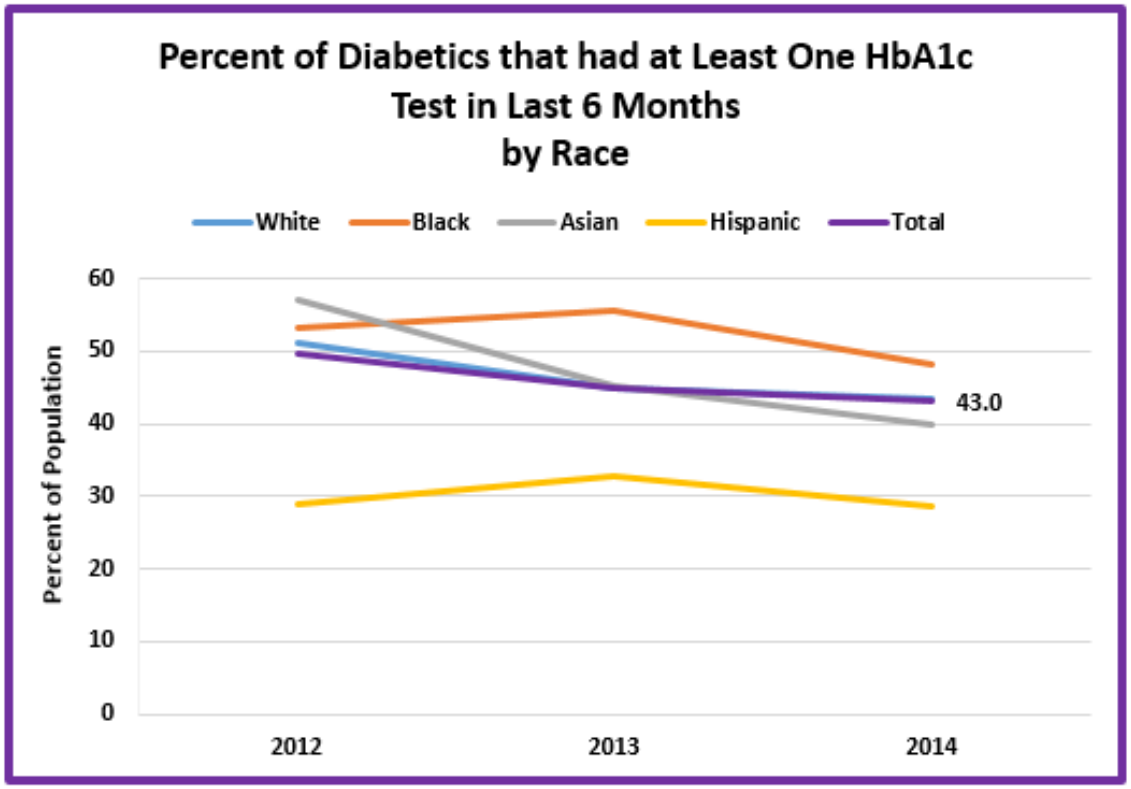
## Area of Greatest Opportunity

Continuing the promotion of a healthy lifestyle to help manage diabetes is crucial in the management of diabetes. Additionally, offering and promoting culturally appropriate diabetes management programs is an evidence-based practice that has found success.

## Trend Data with Goal

In 2015, 53% of adults in Minnesota met all four diabetes goals according to Minnesota Community Measures.

According to the latest data from REP, **43%** of diabetics have had at least one HbA1c test in the last six months. Data from the Centers for Disease Control and Prevention (2014) shows that 68% of United States adults with diabetes had two or more A1c tests in the last year; Minnesota was slightly higher at 70.2% (2013 data).




## Health Disparities

There are disparities in the percentage of Minnesotans who meet all four diabetes goals for optimal diabetes management. The 2014 Health Equity of Care Report found that the Asian population had the highest rate of optimal care at 44%, followed by whites (41%) and blacks (27%). Only 32% of Hispanic adults meet the optimal diabetes care measure as compared to 40% of non-Hispanic adults.

# COLORECTAL CANCER SCREENING


Note: Colorectal Cancer Screening is under further data development.

## Definition

Colorectal cancer screening is designed to find people with pre-cancerous lesions or early stage colorectal cancer in order to prevent late stage colon cancer from developing. There are multiple guidelines available when recommending the timeframe and frequency for colorectal cancer screening (i.e. every five years, every ten years). A colonoscopy is an exam in which a tube is inserted in the rectum to view the colon for signs of cancer or other health problems.

This assessment focuses on the proportion of adults over 50 who received a colonoscopy in the last year, assessed through the Rochester Epidemiology Project .

## Data Sources

Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System; Healthy People 2020; National Institute of Health, National Cancer Institute; Rochester Epidemiology Project; United States Census Bureau, American Community Survey; United States Preventive Services Task Force

## Community Health Importance

Colorectal cancer is the third most common cancer diagnosed in both men and women in the United States and second leading cause of death. The overall lifetime risk of developing colorectal cancer is about one in twenty (5.1%). More Minnesotans die each year of colorectal cancer than breast and prostate cancers combined.

## What does this Health Factor Influence or Impact?

Regular screening can often find colorectal cancer early, when it is most likely to be curable. In many cases, screening can also prevent colorectal cancer altogether. This is because some polyps, or growths, can be found and removed before they have the chance to turn into cancer.

## Community Assets

Current community initiatives and organizations that promote and provide colorectal cancer screenings include: Community Health Services; Mayo Clinic Rochester; and Olmsted Medical Center.

## Community Perception

**Level of Threat/Issue**

Slight → Moderate → Significant → Severe/Extreme

***3% of prioritization participants feel colorectal cancer screening is one of the top health issues impacting Olmsted County residents***

## Area of Greatest Opportunity

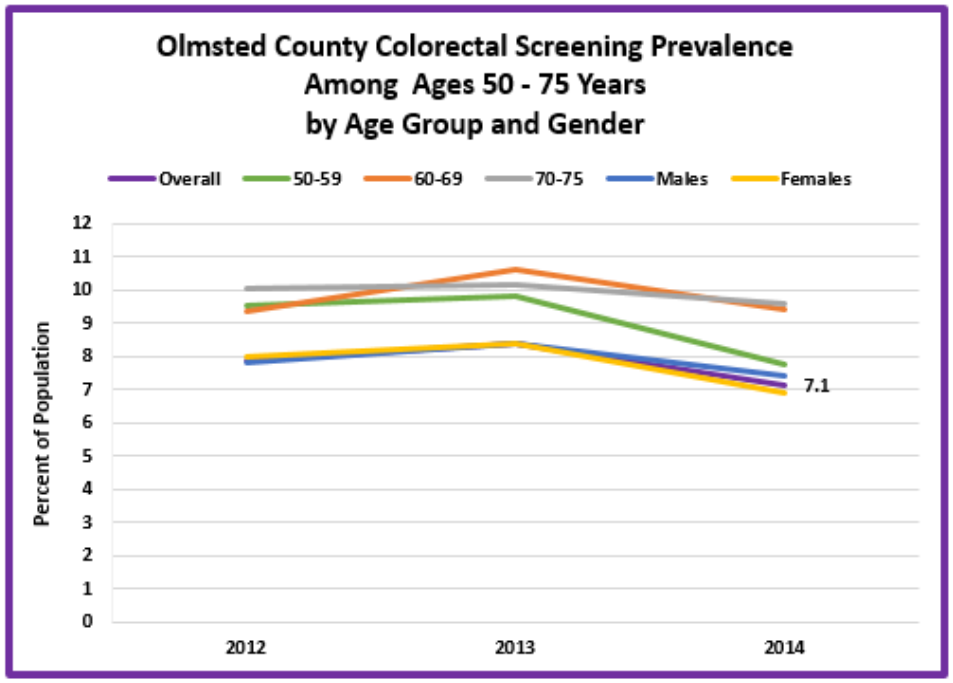
To increase the number of people getting the recommended colorectal cancer screenings, community education efforts and promotion of the importance of getting routine colorectal cancer screens should be continued.

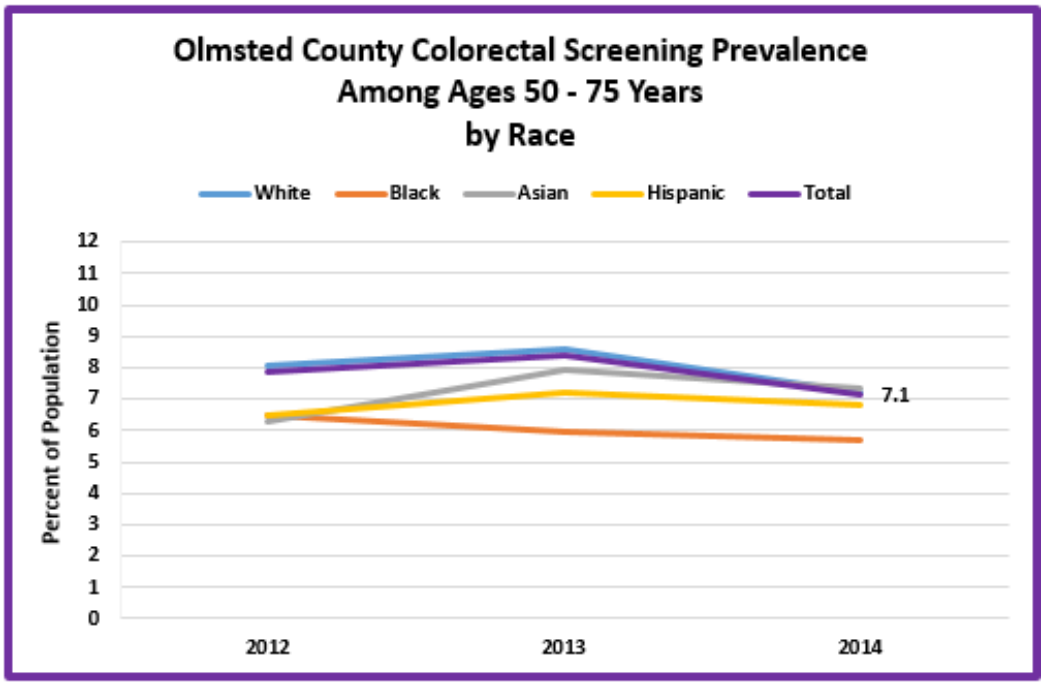
## Trend Data with Goal

According to current REP data, **7%** of Olmsted County adults aged 50-75 received a colorectal screening in 2014. The rate of colorectal cancer screening has remained stable over the last three years.

Data from the 2014 Behavioral Risk Factor Surveillance System shows 28.6% of Minnesota and 33.6% of United States 50 to 75 year olds fully met the United States Preventive Services Task Force recommendation.

**Note: Not comparable to Olmsted County data.*




## Health Disparities

Rochester Epidemiology Project data shows that there are fewer black individuals getting colorectal cancer screenings compared to white and Asian individuals (4.7% vs 7.2% and 7.3%, respectively).

As age increases, individuals are more likely to get the recommended colorectal cancer screening. Individuals over 70 years are more likely to receive the screening than an individual 50-59 years of age (9.6% vs 7.7%).

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# HEALTH FACTORS

# Social and Economic Factors

Safe from Fear & Violence

Living Wage/ Underemployed


Food Insecurity

Access to Transit


Education Level

Community Resilience


Social Connectedness

Homelessness

Financial Stress

Early Childhood Screening

# EDUCATION LEVEL


## Definition

The level of education in a community is measured in a variety of different ways. Specifically for this assessment, the measurement of education level is the four-year graduation rate.

## Data Sources

Minnesota Department of Education; National Center for Education Statistics, Institute of Education Sciences

## Community Health Importance

Education level is used as an indicator of economic status. An education, both high school and higher education, is the best way to assure employment at living wage rates, enabling people to purchase better housing in safer neighborhoods, healthier food, better medical care and health insurance. All of these factors are associated with better health.

The estimated difference between the lifetime earnings of a high school dropout and a college graduate is $1.1 million. Every Minnesota high school dropout costs taxpayers $415,986 over that person's lifetime. That's about $908.96 per taxpayer annually.

## What does this Health Factor Influence or Impact?

Education is one of the strongest predictors of health. The more schooling people have the better their overall health is likely to be. Although education is highly correlated with income and occupation, evidence suggests that education exerts the strongest influence on health. More formal education is consistently associated with lower death rates, while less education predicts earlier death. The less schooling people have, the higher their levels of risky health behaviors are, such as smoking, being overweight, or having a low level of physical activity. High school completion is a useful measure of educational attainment because its influence on health is well studied, and it is widely recognized as the minimum entry requirement for higher education and well-paid employment.

## Community Assets

Current community initiatives and organizations working around education include: early childhood programs; after school programs; Olmsted County public and private schools; and youth development and recreational programs.

## Community Perception

**Level of Threat/Issue**

Slight → Moderate → Significant → Severe/Extreme

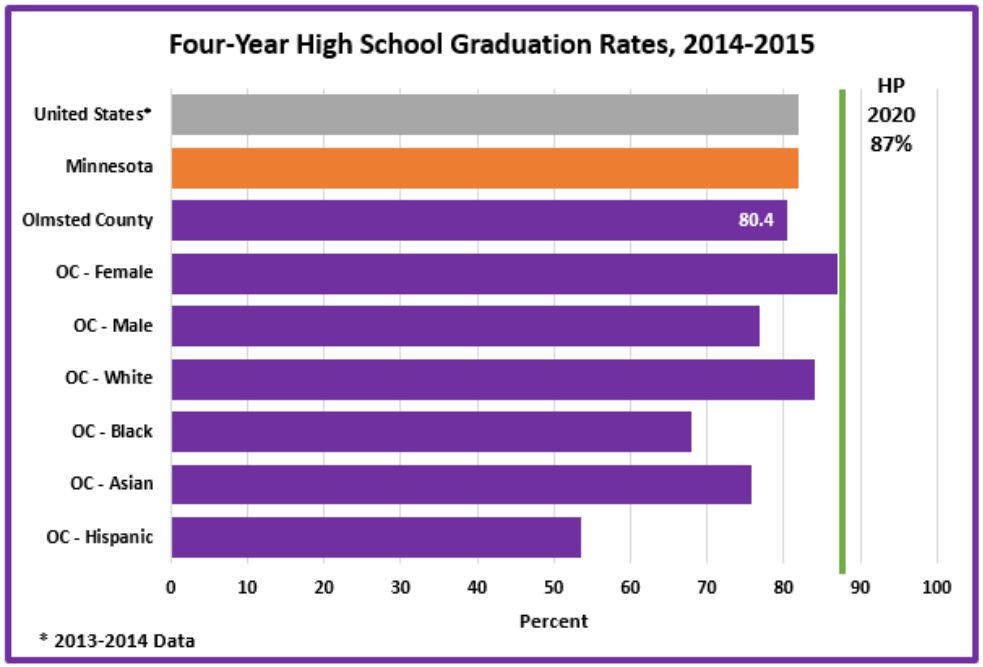
***13% of prioritization participants feel education level is one of the top health issues impacting Olmsted County residents***

## Area of Greatest Opportunity

Future efforts should focus on the disparities among race and ethnicity groups in Olmsted County to continue work to reduce the education level gap. Efforts could include evidence-based practices such as mentorship programs, promotion of college access programs and targeted truancy programs.

## Trend Data with Goal

In 2015, Olmsted County school districts had a combined four-year graduation rate of **80.4%**. The current graduation rate in Olmsted County has improved just slightly since the 2009-2010 school year (79.5%). Olmsted County's graduation rate is 2% lower than Minnesota and the United States, and 8% lower than the Healthy People 2020 goal of 87%. Olmsted County school districts have a **5%** drop-out rate.




**Olmsted County Four-Year Graduation Rates by Student Race and Ethnicity**

| Race and Ethnicity | 2009-2010 | 2014-2015 | % Change |
|---|---|---|---|
| **Asian/Pacific Islander** | 74.8% | 75.7% | 1.2% |
| **Hispanic** | 52.3% | 53.6% | 2.5% |
| **Black (African & African American)** | 46.5% | 68.1% | 46.5% |
| **Eligible for Free/Reduced Meals** | 54.0% | 61.5% | 13.9% |
| **Limited English Proficiency** | 48.2% | 52.4% | 8.7% |
| **White, Non- Hispanic** | 84.6% | 84.7% | 0.0% |
| **All Groups** | 79.5% | 80.4% | 1.1% |

## Health Disparities

Graduation rates for minority groups in Olmsted County, while improving greatly, remain significantly below the white non-Hispanic population of 85%. The white non-Hispanic four-year graduation rate is drastically higher than the Hispanic (53.6%) and black graduation rates (68.1%). Another notable disparity exists among those that are eligible for free and reduced meals, which is currently at approximately 61.5%.

# FINANCIAL STRESS

## Definition

Financial stress can be defined as a condition that occurs whenever household income is less than desired outgo, the difficulty that a household may have in meeting basic financial commitments.

This assessment focuses on two metrics: (1) households paying over 30% of their income for housing, through the United States Census; and (2) individuals worried or stressed about having enough money to pay for monthly bills, through the Olmsted County CHNA Survey.

## Data Sources

Minnesota Department of Health, Minnesota Statewide Health Assessment, 2012; Minnesota Housing Partnership; Olmsted County CHNA Surveys; Rochester/Olmsted Planning Department; United States Census Bureau, American Community Survey; United Way of Olmsted County

## Community Health Importance

Financial stress is one of the leading causes of stress in America. With less money in the budget, people tend to cut corners in areas of healthcare to pay for basic necessities (i.e. deciding to pay for groceries and not having enough money for prescription medicine), which can lead to more serious health issues.

## What does this Health Factor Influence or Impact?

Financial stress affects everyone in a family. It is linked to health problems such as anxiety, depression, and unhealthy coping behaviors. For children it can lead to poor school attendance and behavioral issues. Financial stress can also cause or worsen health conditions such as heart disease, diabetes, hypertension and substance abuse.

## Community Assets

Current community initiatives and organizations working toward reducing financial stress include: community schools; Family First Minnesota; job skills training; low income housing; rental assistance; Rochester Area Foundation First Homes; Tri-Valley Opportunity Council, Inc.; United Way of Olmsted County; and Women, Infant and Children (WIC), Olmsted County Public Health Services.

## Community Perception

**Level of Threat/Issue**

Slight → Moderate → Significant → Severe/Extreme

***31% of prioritization participants feel financial stress is one of the top health issues impacting Olmsted County residents***

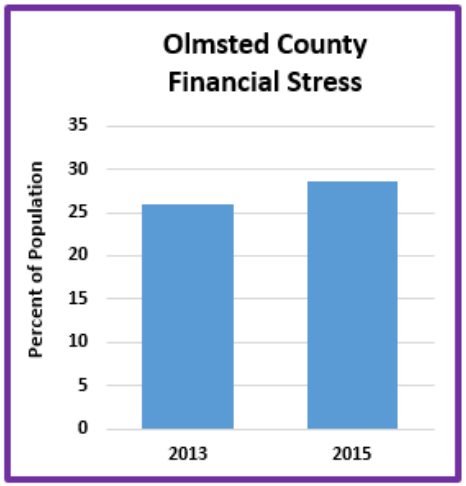
## Area of Greatest Opportunity

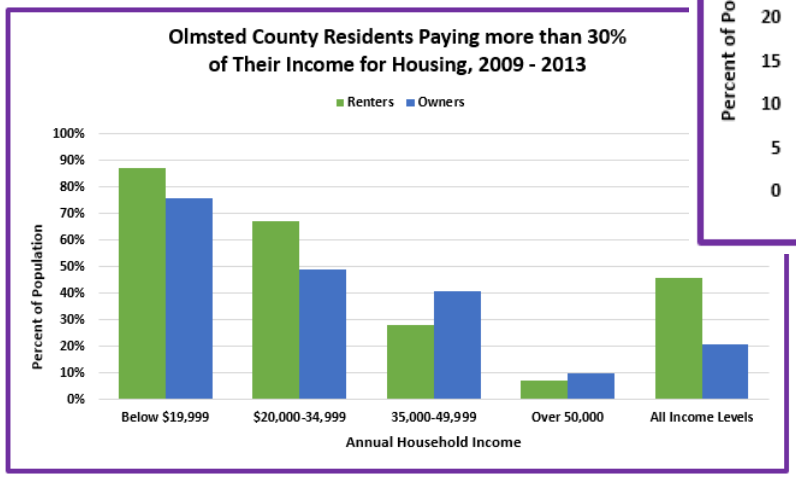
Olmsted County currently has many resources to assist with financial stress, but more could be done to promote these resources and also reduce the stigma of using them. Additionally, future work should focus on evidence-based strategies including tenant-based rental assistance programs and child care subsidies.

## Trend Data with Goal

According to The United States Census data (2009-2013), **21%** of Olmsted County homeowners and **46%** of renters are paying more than 30% of their income to housing [mortgage/rent] alone).

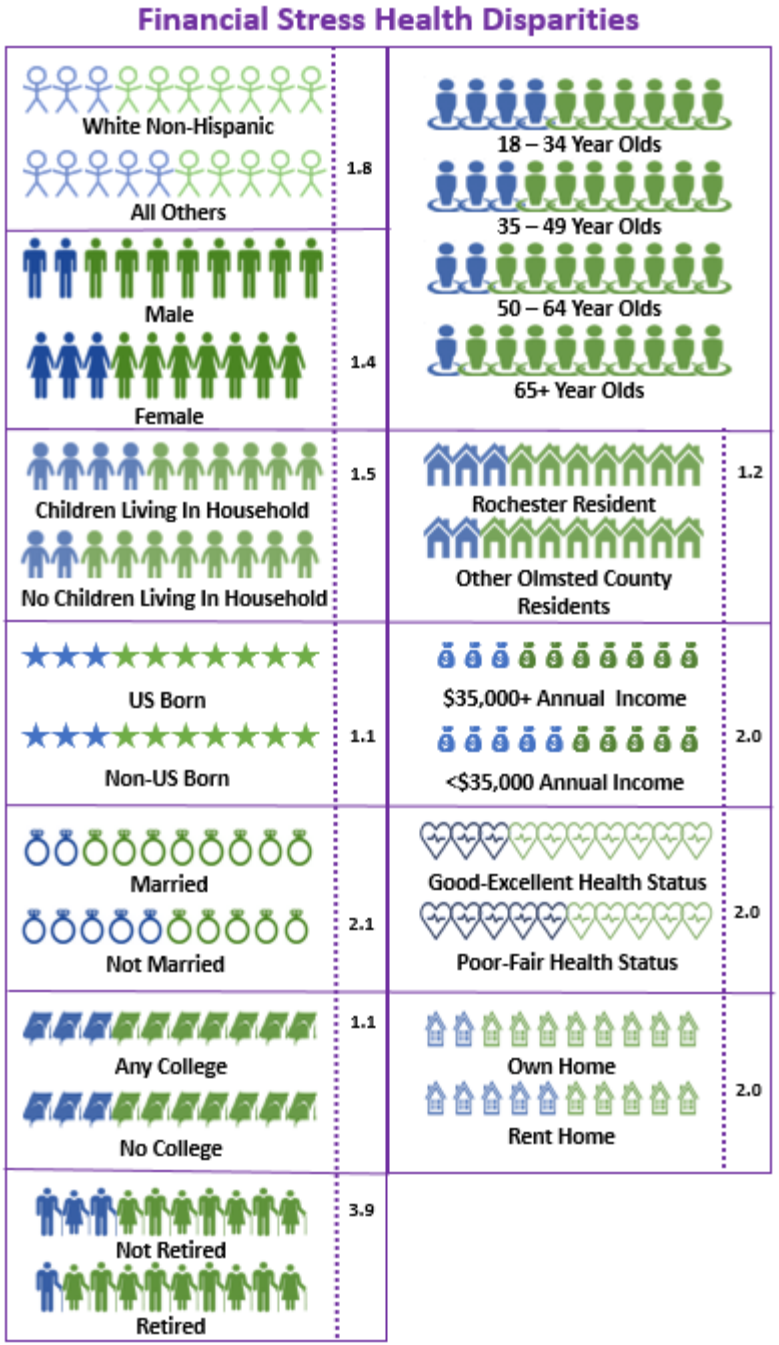
Data from the Olmsted County CHNA Community Survey shows that **28.7%** of Olmsted County adults are currently financially stressed - or are worried or stressed about not having enough money to pay their bills. Of those that are financially stressed, over half (58.2%) are worried about money six or more months out of the year. Many (47.3%) financially stressed individuals stated that a major life event contributed to their financial stress situation. For those reported being financially stressed, the most worrisome/frequent to pay are credit cards (52%), rent/mortgage (49%) and medical bills (48%).




## Health Disparities

According to local data, financial stress health disparities currently exist among certain subpopulations throughout Olmsted County. Unmarried individuals; those that report fair or poor health status; those living in household earning less than $35,000 annually; those who rent their home; and non-white, non-Hispanic individuals are more likely to be financially stressed.




# FINANCIAL STRESS

# HOMELESSNESS

Note: Homelessness is under further data development.

## Definition

Households experiencing long-term homelessness include individuals, unaccompanied youth, and families with children lacking a permanent place to live continuously for one year, or have been homeless at least four times in the past three years excluding any period of institutionalization or incarceration.

This assessment focuses on three metrics: (1) the number of people housed in homeless shelters, through the Comprehensive Housing Needs Assessment for Olmsted County; (2) the prevalence of homelessness through Wilder Research; and (3) Olmsted County CHNA Survey respondents were able to report if they had moved two or more times in the last year (transient).

## Data Sources

2014 Comprehensive Housing Needs Assessment for Olmsted County; Olmsted County CHNA Surveys; Wilder Research, Minnesota Homeless Study

## Community Health Importance

People without homes cannot build productive lives - physical and mental health deteriorate and it is difficult (if not impossible) to find and keep a job. Without income and a place to sleep at night, people are more likely to turn to crime. Children cannot move forward with their education and they cannot develop healthy, sustainable relationships with their peers.

The cost of homelessness can be quite high. Hospitalization, medical treatment, incarceration, police intervention, and emergency shelter expenses can add up quickly, making homelessness surprisingly expensive for municipalities and taxpayers.

## What does this Health Factor Influence or Impact?

Homeless individuals tend to lose connections with family and friends resulting in a weaker social support system. Families experiencing homelessness are vulnerable; most have experienced extreme poverty, residential instability, and violence; and many parents have limited education and work histories. Homeless children are challenged by unpredictability, insecurity, and chaos. Homeless children are absent from school more often; experience increased behavior problems, and more barriers to learning. Homelessness or worrying about becoming homeless increases stress which negatively impacts coping, health, learning and daily functioning in general.

## Community Assets

Current community initiatives and organizations working toward reducing homelessness include: Dorothy Day Hospitality House; Empowerment Center; Gage East Apartments; Interfaith Hospitality Network; Living Independently with Knowledge (LINK); Salvation Army; Rochester School District; Students in Transition (SIT); Tri-Valley Opportunity Council, Inc.; United Way of Olmsted County; and Women's Shelter.

## Community Perception

**Level of Threat/Issue**

Slight → Moderate → Significant → Severe/Extreme

***15% of prioritization participants feel homelessness is one of the top health issues impacting Olmsted County residents***

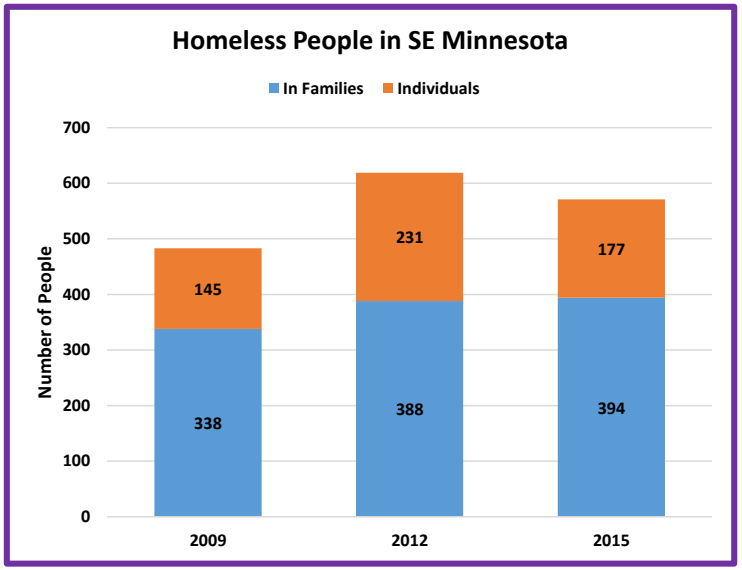
## Area of Greatest Opportunity

Research, program evaluation, and the experiences of families and service providers have yielded extensive information about how to prevent and end homelessness for families. Access to safe, affordable housing as well as services and supports is crucial to maintain stability. All families, regardless of their socioeconomic status, need supports and services to survive, including affordable housing, jobs that pay a livable wage, child care, health and mental healthcare, services for children (i.e. after school programs, tutoring), and transportation. Families who are homeless tend to have less economic and social resources which make access to these vital services and supports even more important.

## Trend Data with Goal

There is limited local data available on how many people are homeless or at risk for homelessness in Olmsted County. According to the Comprehensive Housing Needs Assessment for Olmsted County, there were 70 people housed in homeless shelters in January 2013. This included 41 children under age 18, or 58.6% of all sheltered persons. The majority (92%) of homeless persons in Olmsted county's shelters are women and children under age 18.

Every three years, Wilder Research conducts a one-night statewide survey of homeless people in Minnesota to better understand the prevalence, causes, circumstances and effects of homelessness. The most recent study was conducted on October 22, 2015. The study found 9,312 homeless people in Minnesota (571 were from SE Minnesota) - a 9% decrease from the previous study in 2012. Children with parents represent 35% of the overall homeless population and are the most likely age group to be homeless. In SE Minnesota, 66% of the homeless were parents with children. Youth on their own, age 24 and younger, make up 16% (27% in SE Minnesota) of the homeless population.



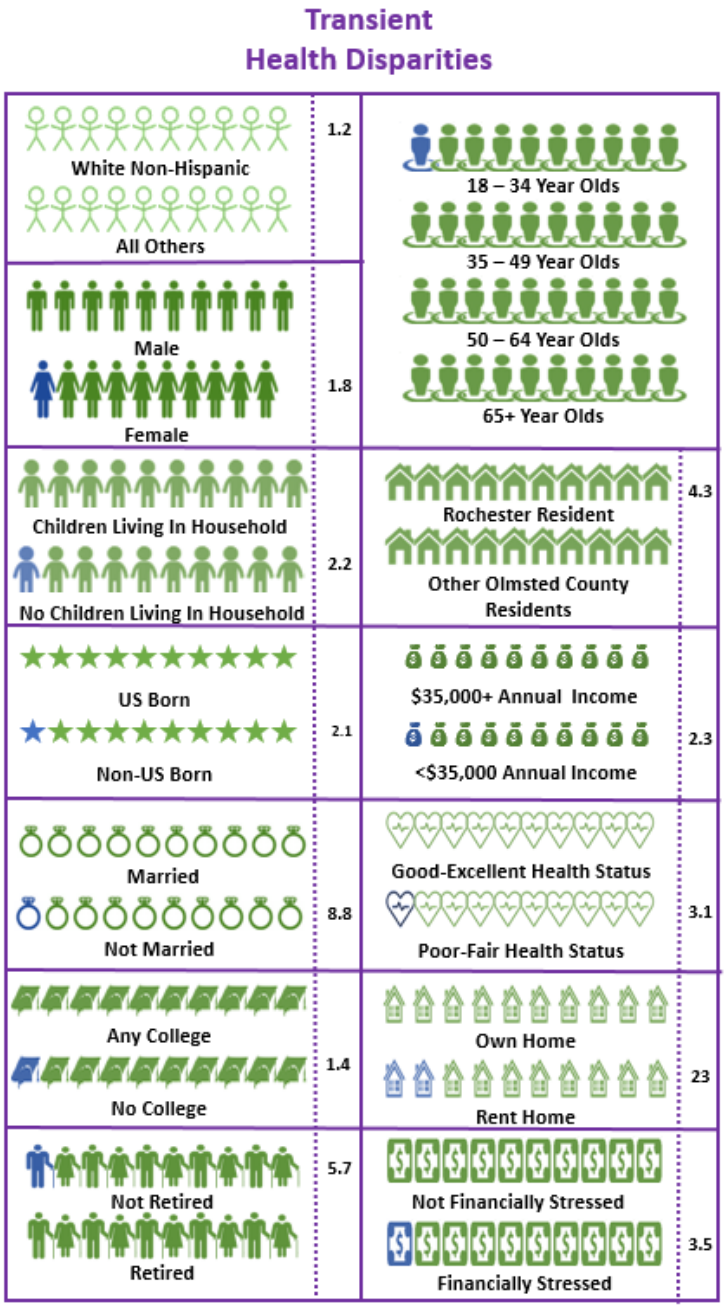

*Note: Olmsted County-specific data is not available.*

The Olmsted County CHNA Survey showed that 4.4% of Olmsted County residents have been transient; have moved two or more times in the last year.

## Health Disparities

Minnesota data shows that while African Americans age 18 and older make up just 5% of Minnesota's population, they make up 39% of the homeless population; 34.6% of the homeless in SE Minnesota are African American.

According to local data, transient (moving more than two times in the past year) health disparities currently exist among certain subpopulations throughout Olmsted County. Those reporting fair or poor health status; individuals born outside of the United States; individuals who rent their home; and individuals living in households earning less than $35,000 annually are more likely to be transient.




# HOMELESSNESS

# LIVING WAGE/UNDEREMPLOYED


Note: Living Wage/Underemployed is under further data development.

## Definition

Living wage is the hourly rate that an individual must earn to support their family with typical (or basic) monthly expenses in a specific community. The seven factors used in calculating the basic cost of a safe and decent standard of living are: housing; food; childcare; transportation; healthcare; taxes; and other basic necessities. Because of these factors, a true living wage cannot be calculated for the entire county due to the complexity.

Underemployed refers to a person not having enough paid work or not doing work that makes full use of their skills and abilities.

## Data Sources

Massachusetts Institute of Technology, Living Wage Calculator, Dr. Amy K Glasmeier; United States Census Bureau, Small Area Income and Poverty Estimates

## Community Health Importance

Studies have found that increasing wages to meet a livable wage can decrease premature deaths and overall well-being. People with living wage jobs are able to afford healthy diets, make more social connections and have better mental health.

## What does this Health Factor Influence or Impact?

Underemployment has been shown to lead to an increase in unhealthy behaviors related to alcohol and tobacco consumption, diet, exercise, and other health-related behaviors, which in turn can lead to increased risk for disease or mortality, especially suicide.

## Community Assets

Current community initiatives and organizations working toward living wage/underemployed include: employment placement agencies; Journey to Growth; Rochester Interfaith Work Justice Group and Certification Program; United Way of Olmsted County; and Workforce Development Center.

## Community Perception

**Level of Threat/Issue**

Slight → Moderate → Significant → Severe/Extreme

***30% of prioritization participants feel living wage/underemployed is one of the top health issues impacting Olmsted County residents***

## Area of Greatest Opportunity

Strategies to increase living wage and/or decrease underemployment include further education on what a living wage is and reviewing data to determine a living wage for Olmsted County.

UNDER DATA DEVELOPMENT

# LIVING WAGE/UNDEREMPLOYED

# FOOD INSECURITY

## Definition

The United States Department of Agriculture defines the food security status of households using a continuum extending from very low food security to very high food security. *Refer to Supplemental Document, Appendix M for a full definition.*

This assessment focuses on two metrics: (1) Olmsted County CHNA Survey participants identified how many days they had been worried about food running out; and (2) food insecurity rates from Feeding America.

## Data Sources

Feeding America; Olmsted County CHNA Community Survey; United States Department of Agriculture

## Community Health Importance

A person's diet is a significant influence of health and overall well-being. Food insecurity has been associated with lower nutrient intake as well as lower intake of fruits and vegetables. Lacking consistent access to food, especially healthy food, is related to negative health outcomes such as weight gain and premature mortality. Although food insecurity is harmful to any individual, it can be particularly devastating among children due to their increased vulnerability and the potential for long-term consequences.

## What does this Health Factor Influence or Impact?

Adults that are food insecure have an increased risk for depression, stress, hypertension, diabetes and overall poor health. Children also experience negative health affects including developmental delays, behavioral issues, and poor oral health and are at risk for chronic conditions later in life.

## Community Assets

Current community initiatives and organizations working toward making healthy food easily accessible include: Breastfeeding Coalition; Channel One; National School Lunch Program; Olmsted County Public Health Services, Statewide Health Improvement Plan (SHIP); Regional Food Policy Council, 'Healthy Food Alliance of SE Minnesota'; Rochester Area Foundation's CROPS; Supplemental Nutrition Assistance Program; Tri-Valley Opportunity Council, Inc.; and Women, Infant and Children (WIC) Program, Olmsted County Public Health Services.

## Community Perception

**Level of Threat/Issue**

Slight → Moderate → Significant → Severe/Extreme

***7% of prioritization participants feel food insecurity is one of the top health issues impacting Olmsted County residents***

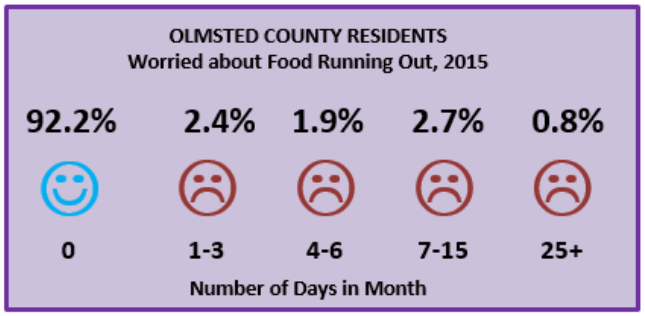
## Area of Greatest Opportunity

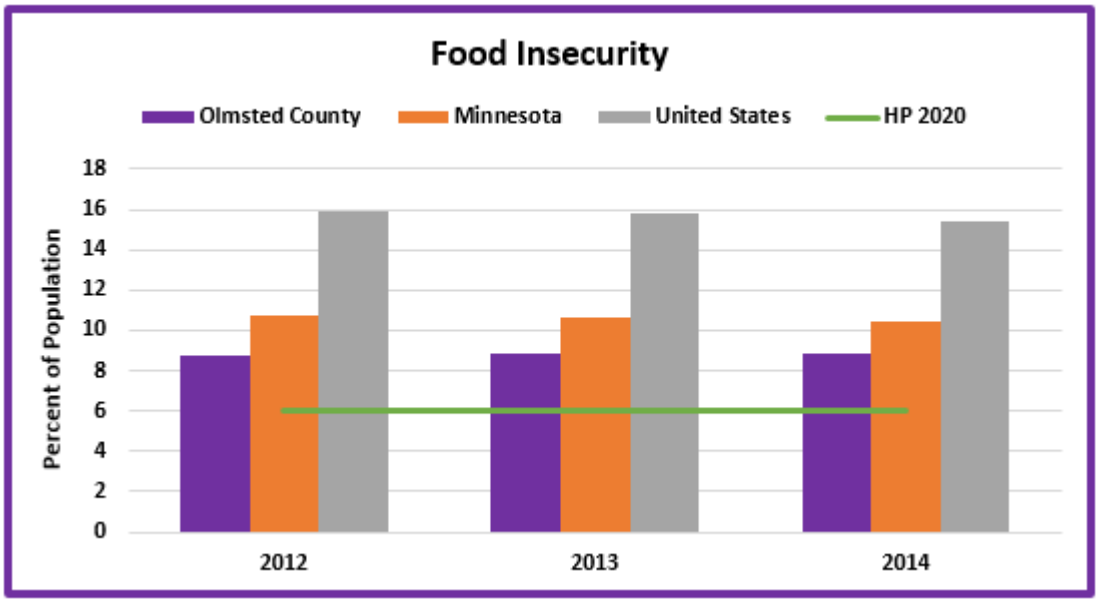
The need continues to create and maintain healthier food options for individuals outside of the home that are competitively priced, including healthy options at vending machines, concessions, corner stores, community gardens, and farmers markets. Additionally, promotion and reduction of stigma of the school breakfast program and free or reduced lunch to increase enrollment of children that qualify.

## Trend Data with Goal

According to the Olmsted County CHNA Survey, **7.8%** of Olmsted County residents experience food insecurity. Of those who worried about running out of food, on average, they were worried eight days per month (range of 1-30 days).

In 2014, Feeding America reported that **9%** of Olmsted County residents are food insecure, compared to Minnesota at 10.4% and the United States at 15.4%. The average cost of a meal in Olmsted County is $2.86; right in line with Minnesota ($2.88) and the United States ($2.89).

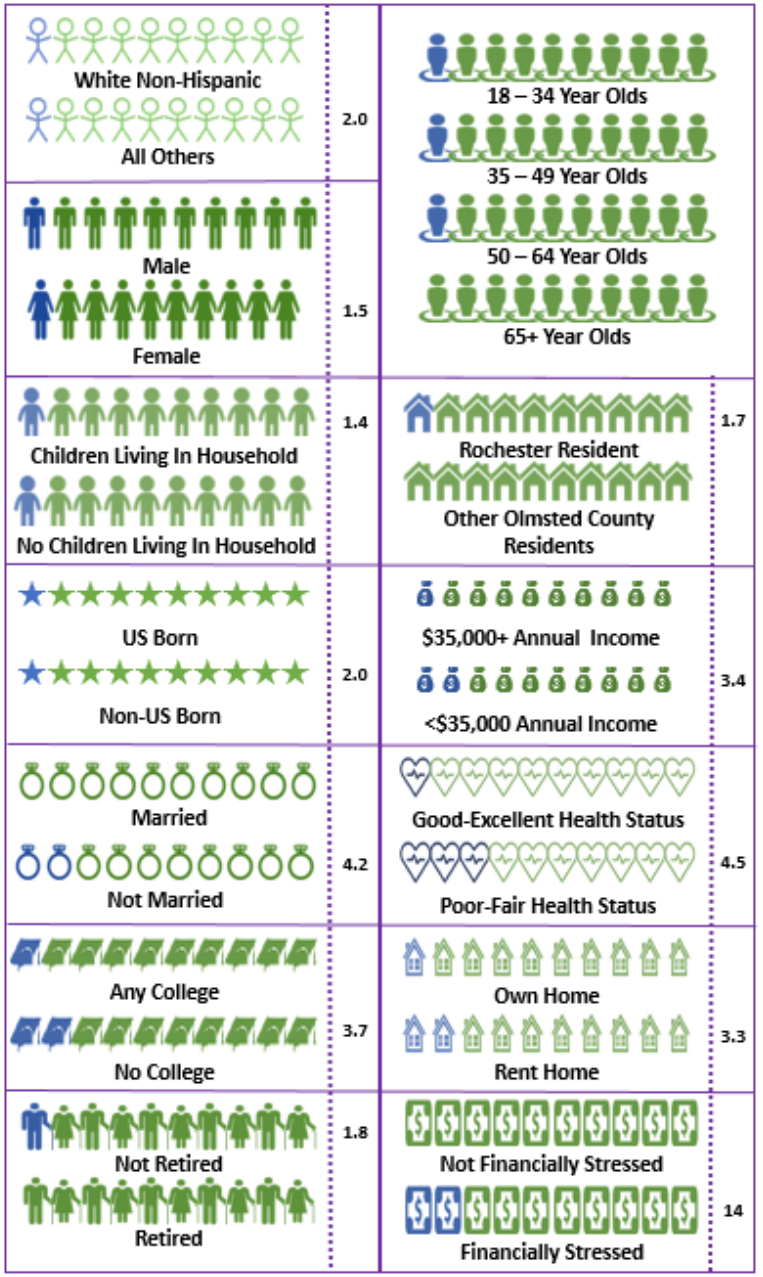



## Health Disparities

According to local data, food insecurity health disparities currently exist among certain subpopulations throughout Olmsted County. Those that are financially stressed; in fair or poor health; non-married individuals; those with no college and lower income households that rent their home are more likely to report food insecurity.

## Food Insecurity Health Disparities




# FOOD INSECURITY

# SAFE FROM FEAR AND VIOLENCE

## Definition

This assessment focuses on two metrics: (1) youth perception of safety at home, at school and in the community; and (2) adult perception of safety at home and in the community. Additionally, an index of overall feeling of safe from fear and violence was created for adults by asking Olmsted County CHNA survey respondents their agreement with the following statements:

- People in my neighborhood are afraid to go out at night due to violence.
- Community violence is a serious issue in my neighborhood.
- Domestic violence is a serious issue in my neighborhood.
- Children are safe in my neighborhood.
- I feel safe in my home.
- I feel safe at my job or place of work.

## Data Sources

Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System; Minnesota Department of Health, Minnesota Student Survey; Olmsted County CHNA Surveys

## Community Health Importance

Neighborhood safety affects the well-being of individuals, as well as population health outcomes. Violent acts degrade the quality of life for all citizens. Neighborhood safety, as it relates to exposure to crime, is recognized as a social determinant of health that can affect a wide range of health, functioning, and quality-of-life outcomes and risks. It can also be an economic burden related to lost wages, lowered productivity, increased medical costs and increased costs associated with law enforcement, court services and detention facilities.

## What does this Health Factor Influence or Impact?

Health can be shaped by the social environments of neighborhoods, including the degree of mutual trust and feelings of connectedness among neighbors - that is, by characteristics of the social relationships among their residents. Residents of 'close-knit' neighborhoods may be more likely to work together to achieve common goals (i.e. cleaner and safe public spaces, healthy behaviors and good schools), exchange information (i.e., regarding child care, jobs and other resources that affect health), and to maintain informal social controls (i.e., discouraging crime or other undesirable behaviors such as smoking or alcohol use among youths, drunkenness, littering and graffiti), all of which can directly or indirectly influence health.

## Community Assets

Current community initiatives and organizations working toward reducing fear and violence include: Citizen Police Academy; Crime Free Multi-Housing; Crisis Intervention Team; D.A.R.E. (Drug Abuse Resistance Education); McGruff House; National Night Out; Neighborhood Watch; Olmsted County Sheriff's Office; Operation Identification; Probation Department; Project Safe City; RNeighbors; Rochester Police Department; Triad; and SE Minnesota Narcotics & Gang Task Force.

## Community Perception

**Level of Threat/Issue**

Slight → **Moderate** → Significant → Severe/Extreme

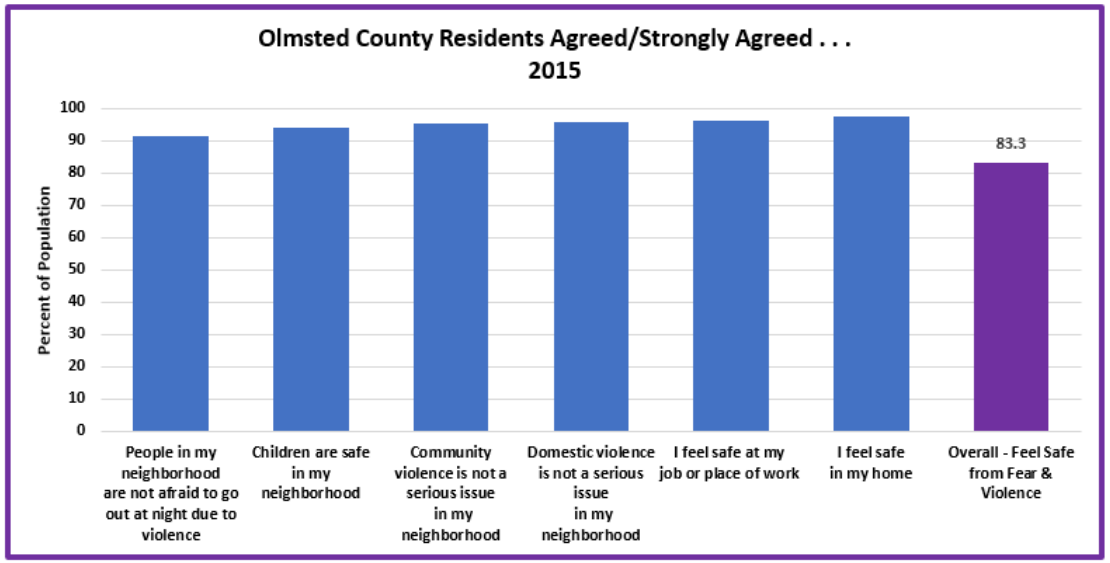
***7% of prioritization participants feel safe from fear and violence is one of the top health issues impacting Olmsted County residents***

## Area of Greatest Opportunity

To promote safe neighborhoods, focus should be placed on encouraging participation in neighborhood associations that bring people together to collectively improve neighborhoods and neighborhood watch programs.

## Trend Data with Goal

According to the Olmsted County CHNA Survey, nearly **83%** of Olmsted County residents feel safe from fear and violence. Individually, the highest feeling of 'safe' comes at home. Nearly **98%** of residents state that they feel safe in their home.




According to the 2013 Minnesota Student Survey, the majority of youth and adolescents in Olmsted County and Minnesota feel safe at school, in their neighborhood and at home (**90%**). Nationwide, 7% of youth and adolescents report not going to school because they felt unsafe at school or on the way to school (on at least one day during the 30 days before the survey).

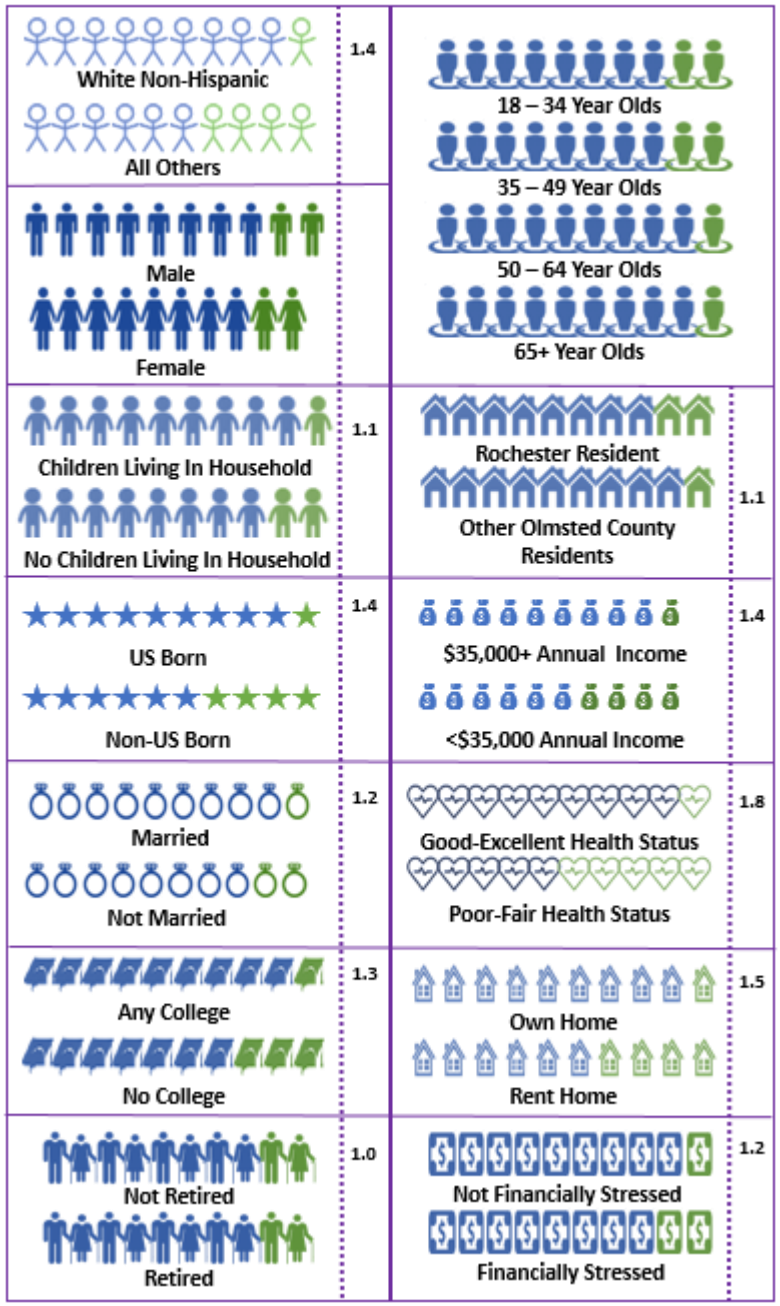
**Minnesota & Olmsted County**

**90% of youth and adolescents feel safe at school, in their neighborhood and at home**

## Health Disparities

According to local data, safety health disparities currently exist among certain subpopulations throughout Olmsted County. Those that are in good, very good or excellent health; white, non-Hispanic Individuals; United States born individuals; and higher income households that own their own home are more likely to have a feeling of safety.

## Safe from Fear and Violence Health Disparities




# SAFE FROM FEAR AND VIOLENCE

# ACCESS TO TRANSIT


Note: Access to Transit is under further data development.

## Definition

Access deprivation is the inability to obtain needed goods and services in a timely fashion due to circumstances related to the individual (age, disability), household (income, vehicle ownership), neighborhood (isolation from needed goods and services), infrastructure (absence, level of service, or condition of transportation modes), or combinations of such circumstances.

## Data Sources

Healthy People 2020; Minnesota Department of Health, Minnesota Statewide Health Assessment 2012; Channel One Food Bank, Transportation Convenience Sample Survey; United States Census Bureau, American Community Survey

## Community Health Importance

A healthy community is one in which people have access to healthy foods, feel safe, have opportunities for physical activity, breathe clean air, have access to gainful employment and feel connected to opportunity. Transportation is access, thus, transportation is opportunity.

*- Healthy People 2020*

## What does this Health Factor Influence or Impact?

Transportation links people and places, making it possible to get to work, for example, or to get from home to the grocery store. Transportation includes more than the state's roads, walkways, or bridges: it encompasses the state's public transit systems; policies that dictate the location and construction of roads; and guidelines for accommodating different kinds of users, for increasing physical activity, and for limiting the potential for driver, bicyclist, and pedestrian injury.

## Community Assets

Current community initiatives and organizations working toward increasing access to transit include: Elder Network's transportation program for seniors; Olmsted County Volunteer Drivers Program; Rochester Olmsted Council of Governments; Rochester Public Transit; Rolling Hills Transit - Semcac; and R&S Transport.

## Community Perception

**Level of Threat/Issue**

Slight → Moderate → Significant → Severe/Extreme

***19% of prioritization participants feel access to transit is one of the top health issues impacting Olmsted County residents***

### Area of Greatest Opportunity

Good neighborhood design can overcome household or individual limitations. For example, a neighborhood with good infrastructure and with grocery stores, parks, jobs and schools addresses the access needs of its residents even if they are young or disabled and even if they live in households that do not own vehicles. Similarly, household characteristics such as income can overcome neighborhood and individual limitations: a disabled person with enough financial resources can live in a suburban setting lacking sidewalks and isolated from goods and services and compensate by paying for transportation.

UNDER DATA DEVELOPMENT

# ACCESS TO TRANSIT

# EARLY CHILDHOOD SCREENING

## Definition

Early childhood intervention has been shown to significantly reduce the lasting effects of developmental disorders in children. Early childhood screening is designed to detect developmental problems at an early age in order to appropriately target interventions.

For this assessment, data is presented on the breakdown of children completing the early childhood screening for Olmsted County public schools by age.

## Data Sources

Centers for Disease Control and Prevention; Minnesota Department of Education; Rochester Public Schools, Early Childhood Family Services Report; United States Department of Health and Human Services; University of Minnesota; Wilder Research

## Community Health Importance

Developmental disabilities are common, yet many children with developmental disabilities are not identified in primary care settings and therefore opportunities for early intervention are lost or significantly delayed. Developmental screening programs result in increased detection of developmental delays.

The State of Minnesota requires all children to complete a developmental screening before they are able to enter any public kindergarten program.

## What does this Health Factor Influence or Impact?

Early childhood screenings involve checking children's: vision; hearing; growth; immunization status; skills in thinking; communication and language; large and small muscle control; and emotional development. The purpose of these screenings is to identify children who may have developmental or health needs as early as possible.

## Community Assets

Current community organizations and initiatives that promote and provide early childhood screenings include: Community Education; Early Childhood Special Education; Families First Minnesota; Follow Along Program - Olmsted County Public Health Services; Head Start; Minnesota Department of Education; Olmsted County Community Services; Olmsted County Schools; and preschool programs.

## Community Perception

**Level of Threat/Issue**

Slight → Moderate → Significant → Severe/Extreme

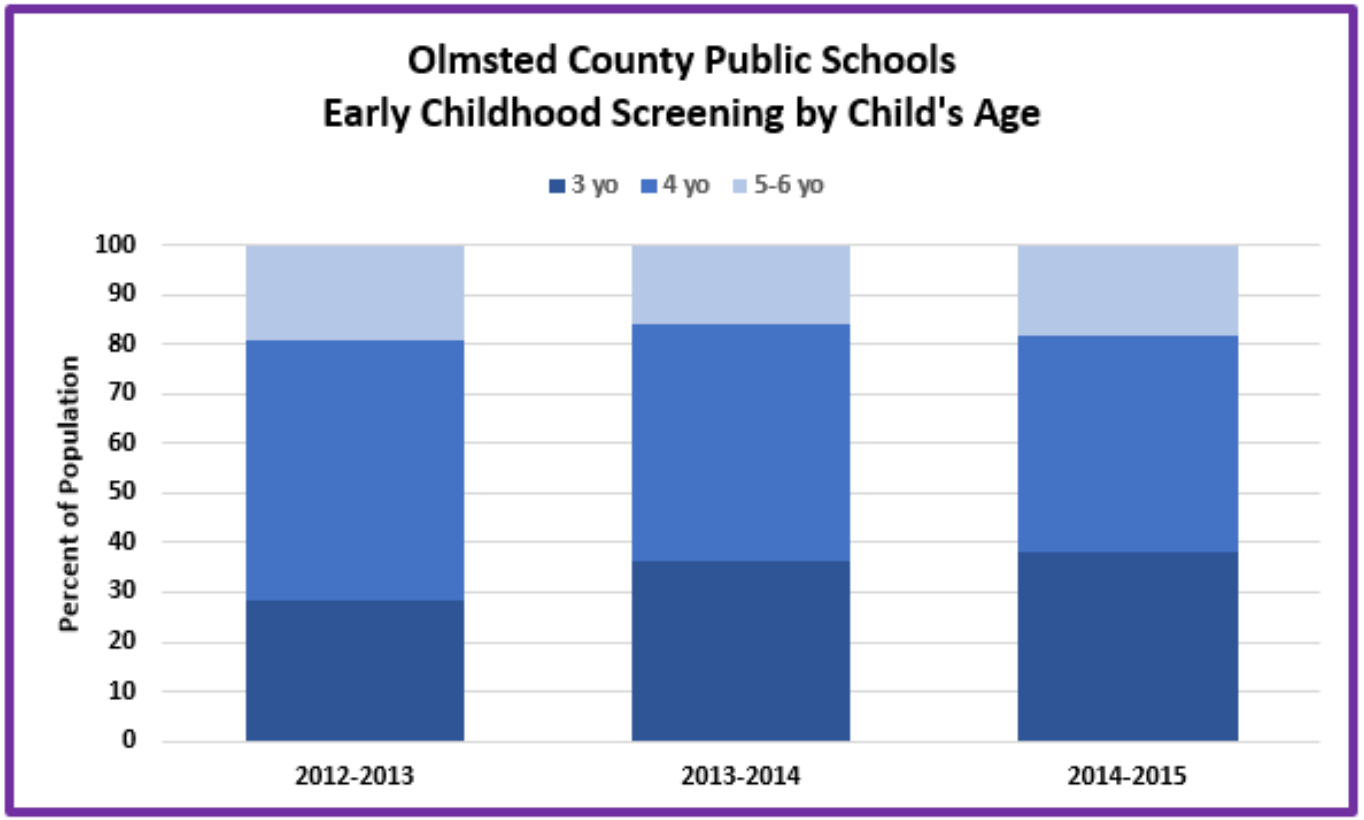
***4% of prioritization participants feel early childhood screening is one of the top health issues impacting Olmsted County residents***

## Area of Greatest Opportunity

To increase early childhood screenings at younger ages, more education and promotion of the importance of getting children screened when they are three years old is essential; specifically focusing on where there are disparities in our community and doing targeted outreach.

## Trend Data with Goal

The best time to have children screened for developmental or health needs is as early as possible; currently this is when children are three years old. Information provided by the Minnesota Department of Education indicates that for the 2014-2015 school year, **38%** of Olmsted County children pursuing public school education received an early childhood screening at three year of age. This is slightly higher than the state rate of 35%. The trend of getting three-year-olds in for screening is improving; however, there is still approximately 18% of all childhood screenings are in five or six year olds - at least two years after the recommended age.




## Health Disparities

*Limited local data is available - this data does not allow for any demographic data breakdown; therefore, differences between subpopulations is not available.*

# SOCIAL CONNECTEDNESS

## Definition

Social connectedness is the measure of how people come together and interact. At an individual level, this involves the quality and number of connections one has with other people in a social circle of family, friends and acquaintances.

This assessment focuses on two metrics: (1) the Minnesota Student Survey asked respondents if the following statement described them, 'I build relationships with other people'; and (2) adult perception of social connectedness. An index of overall feeling of social connectedness was created for adults by asking Olmsted County CHNA Survey respondents their agreement with the following statements:

- People in my neighborhood know each other.
- People in my neighborhood are willing to help one another.
- People in my neighborhood can be trusted.

## Data Sources

Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System; Minnesota Department of Health, Minnesota Student Survey; Olmsted County CHNA Survey; Wilder Research

## Community Health Importance

A person's number of close friends, frequency of interactions with family and friends, trust in neighbors, and level of participation in volunteer activities or community events all play a role in supporting well-being and also influence health, both directly and indirectly.

- *Social Connectedness and Health, Wilder Research, 2012*

## What does this Health Factor Influence or Impact?

Strong social ties can have a direct and positive impact on health. Research has shown that higher levels of perceived social connectedness are associated with lower blood pressure rates, better immune responses, and lower levels of stress hormones, all of which contribute to the prevention of chronic disease.

Social connectedness can also promote health indirectly. Bonding and bridging relationships between individuals can create healthy social norms, help people connect with local services, provide emotional support, and increase knowledge about health - or 'health literacy' - within social networks.

- *Social Connectedness and Health, Wilder Research, 2012*

## Community Assets

Current community initiatives and organizations working toward social connectedness include: Byron Neighbors Helping Neighbors; community gardens; neighborhood associations; Neighbors Helping Neighbors - Family Service Rochester; RNeighbors; Rochester Senior Center; and The Walking School Bus Program.

## Community Perception

**Level of Threat/Issue**

Slight → Moderate → Significant → Severe/Extreme

***8% of prioritization participants feel social connectedness is one of the top health issues impacting Olmsted County residents***

## Area of Greatest Opportunity

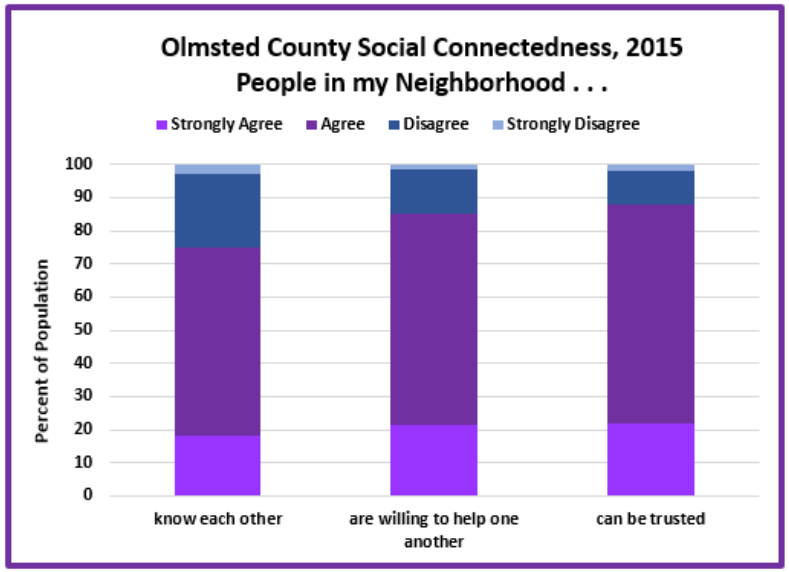
To increase social connectedness, focus should be placed on encouraging participation in neighborhood associations that bring people together to collectively improve neighborhoods and neighborhood watch programs. Additionally, innovative strategies that match younger neighbors with senior neighbors such as the Neighbors Helping Neighbors Program should be explored further.

## Trend Data with Goal

According to the Olmsted County CHNA Survey, nearly **71%** of Olmsted County residents are residing in socially connected neighborhoods. Individually, the highest level of 'connectedness' is with neighbors being trusted. Nearly 88% state that they feel people in their neighborhood can be trusted.

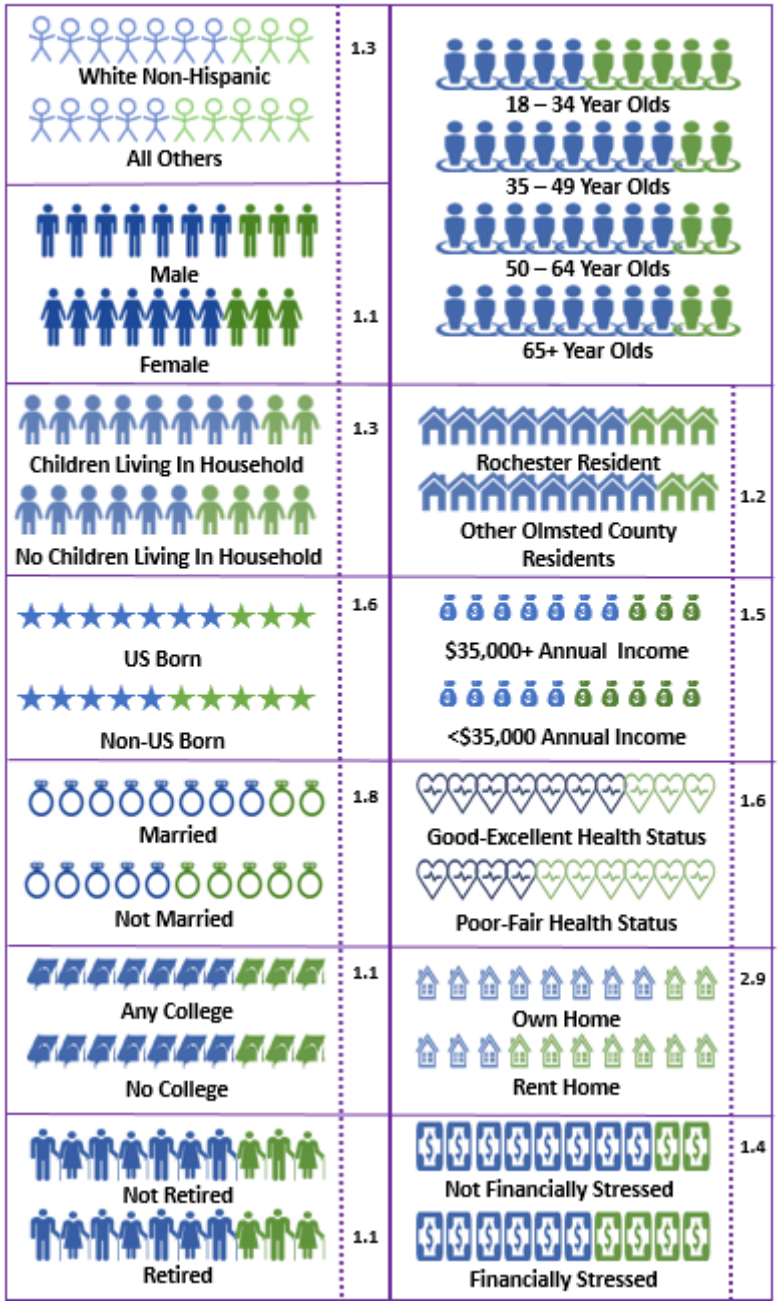
The 2013 Minnesota Student Survey asked youth and adolescents if the following statement described them, 'I build relationships with other people'. Just over **70%** of Olmsted County youth and adolescents state they do build relationships with other people; compared to Minnesota at 74%.

2006 to 2012 Behavioral Risk Factor Surveillance System data indicates that **12%** of Olmsted County residents are lacking social support; compared to Minnesota at 14% and the United States at 19%.





## Social Connectedness Health Disparities




## Health Disparities

According to local data, social connectedness health disparities currently exist among certain subpopulations throughout Olmsted County. Those that are in good, very good or excellent health; white, non-Hispanic individuals; United States born individuals; and higher income households that own their own home are more likely to report being socially connected.

# SOCIAL CONNECTEDNESS

# COMMUNITY RESILIENCY

## Definition

Community resiliency is a measure of the sustained ability of a community to utilize available resources to respond to, withstand and recover from adverse situations. For this assessment, an index of community resiliency was created for adults by asking Olmsted County CHNA Survey respondents if something unpredictable were to happen tomorrow, such as a tornado, flood or community disaster… their agreement to the following statements:

Individual factors:

- I have access to resources that I can use to help my family.
- I have skills I can use to help others.

Community Factors:

- I can count on my community to respond.
- I can count on my community to fully recover.

## Data Sources

Olmsted County CHNA Survey; RAND Corporation; United States Department of Health & Human Services, Public Health Emergency

## Community Health Importance

Communities are increasingly complex and so are the challenges they face. Human-caused and natural disasters are more frequent and costly. In many ways, health is a key foundation of resilience because almost everything we do to prepare for disaster and protect infrastructure is ultimately in the interest of preserving human health and welfare. A resilient community is also a healthy community. Key characteristics of a resilient community include: community members are physically and mentally well; people can access healthcare, healthy foods and services they need; folks are self-sufficient and can take care of each other during tough times; and residents are engaged in the community and connected to each other.

*- United States Department of Health & Human Services, Public Health Emergency*

## What does this Health Factor Influence or Impact?

A resilient community is socially connected and has accessible health systems that are able to withstand disaster and foster community recovery. The community can take collective action after an adverse event because it has developed resources that reduce the impact of major disturbances and help protect people's health. Resilient communities promote individual and community physical, behavioral, and social health to strengthen their communities for daily, as well as extreme, challenges.

*- United States Department of Health & Human Services, Public Health Emergency*

## Community Assets

Current community initiatives and organizations working toward community resiliency include: Olmsted County Disaster Response Advisory Group; Olmsted County Emergency Management - Olmsted County Sheriff; Olmsted County Public Health Emergency Preparedness; and Rochester Emergency Management.

## Community Perception

**Level of Threat/Issue**

Slight → Moderate → Significant → Severe/Extreme

***2% of prioritization participants feel living community resiliency is one of the top health issues impacting Olmsted County residents***

## Area of Greatest Opportunity

The United States Department of Health and Human Services suggests the following strategies to further build resilient communities:

- Strengthen and promote access to public health, healthcare, and social services
- Promote health and wellness alongside disaster preparedness
- Expand communication and collaboration
- Engage at-risk individuals and the programs that serve them
- Build social connectedness

## Trend Data with Goal

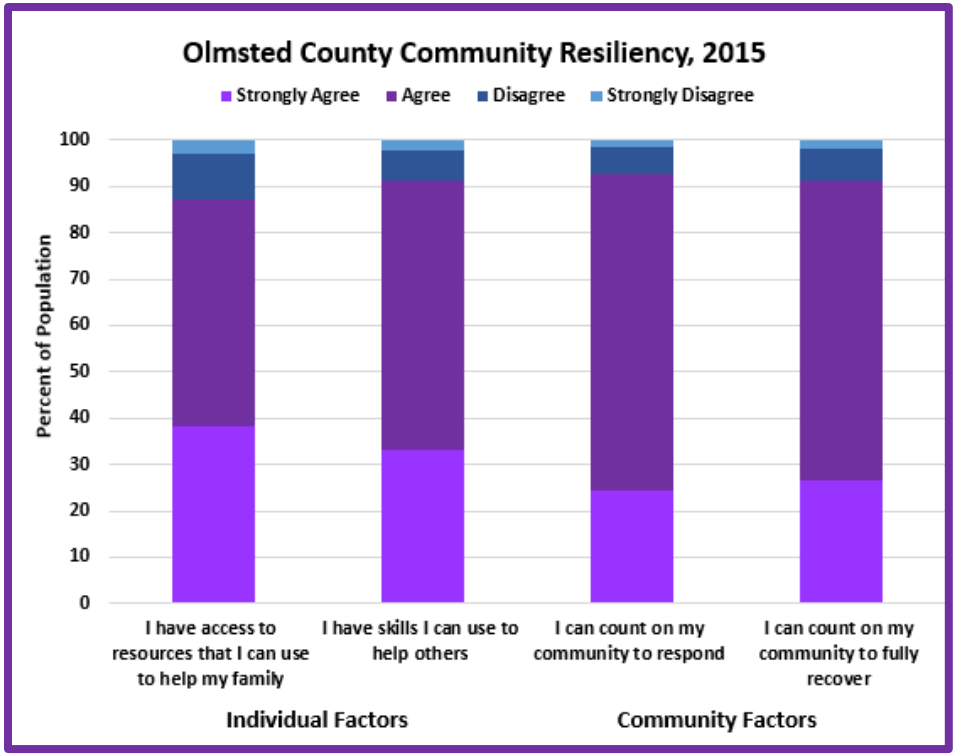
Data from the Olmsted County CHNA Survey shows that **89%** of Olmsted County residents believe their community is resilient (limited to two community factors) .

For the factors on *individual* preparedness:

- 87% have access to resources to use to help their family
- 91% have skills to use to help others

For the factors on *community* preparedness and resiliency:

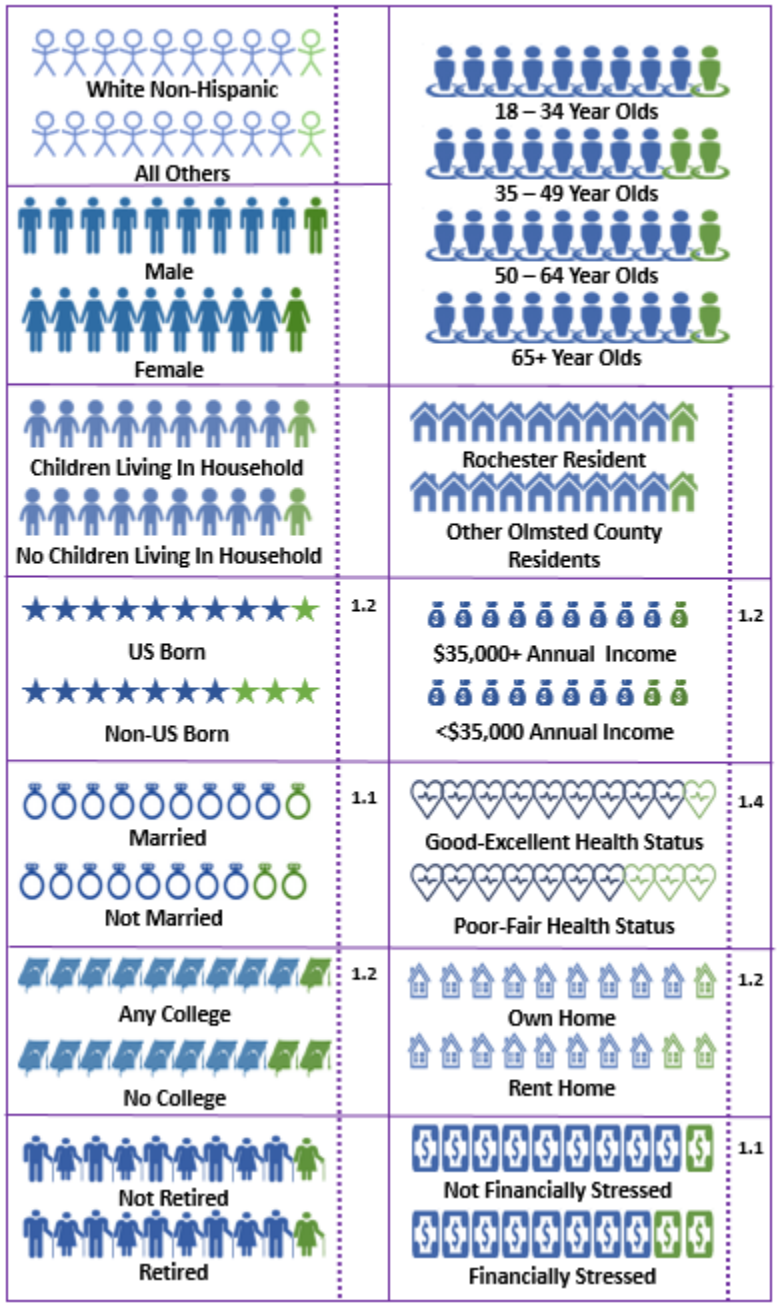
- 93% can count on the community to respond
- 91% can count on the community to fully recover




## Health Disparities

According to local data, community resiliency health disparities currently exist among certain subpopulations throughout Olmsted County. Those that are in good, very good or excellent health; United States born individuals; and higher income households that own their own home are more likely to believe they can count on their community to respond and fully recover.

## Community Resiliency Health Disparities




# COMMUNITY RESILIENCY

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# HEALTH FACTORS
# Physical Environment

## Healthy Homes

Air Quality

## Water Quality

# HEALTHY HOMES

## Definition

A healthy home is one that is marked not only by the absence of health and safety threats (radon, CO, etc.) in the built environment, but also one that nourishes physical, mental, social and environmental well-being.

*-Anne E. Casey Foundation, 2007*

For this assessment, homes were self-assessed on healthy homes principles during the Olmsted County CHNA survey. These principles include: the home is dry, safe, well ventilated, pest free, well maintained, and contaminant free.

*Refer to Supplemental Document, Appendix M for a complete description and listing of the Healthy Homes Principles assessed in the CHNA survey.*

## Data Sources

Anne E. Casey Foundation; Minnesota Department of Health; Olmsted County CHNA Survey; United States Surgeon General's Call to Action to Promote Healthy Homes

## Community Health Importance

The connection between inadequate housing and ill health is well established. A large body of scientific research has demonstrated that numerous housing-related hazards pose a threat to human health. Unhealthy housing is costly in terms of economics, social capital, and personal health.

*- Minnesota Department of Health Healthy Homes Strategic Plan*

## What does this Health Factor Influence or Impact?

Many factors influence health and safety in homes, including structural and safety aspects of the home (i.e., how the home is designed, constructed, and maintained; its physical characteristics; and the presence or absence of safety devices); quality of indoor air; water quality; chemicals; resident behavior; and the house's immediate surroundings. The link between these housing features and illness and injury is clear and compelling. Homes' structural and safety features can increase risk for injuries, elevate blood lead levels, and exacerbate other conditions. Poor indoor air quality contributes to cancers, cardiovascular disease, asthma, and other illnesses. Poor water quality can lead to gastrointestinal illness and a range of other conditions, including neurological effects and cancer. Some chemicals in and around the home can contribute to acute poisonings and other toxic effects. All of these issues are influenced both by the physical environment of the home and by the behavior of the people living in the home.

*- United States Surgeon General's Call to Action to Promote Healthy Homes*

## Community Assets

Current community initiatives and organizations working toward healthy homes include: Olmsted County Public Health Services and private businesses.

## Community Perception

**Level of Threat/Issue**

Slight → Moderate → Significant → Severe/Extreme

***7% of prioritization participants feel healthy homes is one of the top health issues impacting Olmsted County residents***

## Area of Greatest Opportunity

The area for greatest opportunity in the community regarding healthy homes is to promote and educate our community about healthy housing principles. Opportunities also include ensuring affordable housing is healthy and promoting tobacco-free multi-unit housing.

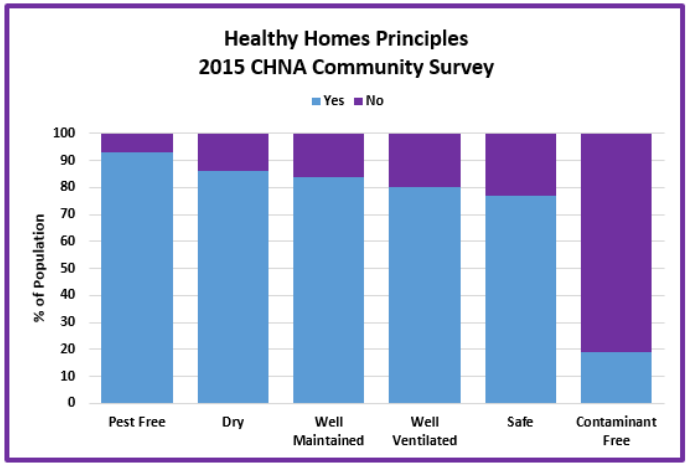
## Trend Data with Goal

According to the Olmsted County CHNA Survey, **12%** of Olmsted County residents meet all six principles for Healthy Homes. Of the individual principles, being pest free (93%), dry (86%) and well-maintained (84%) were the most common healthy homes principles being met.
**Note: Contaminant free includes: being free of mold (that you can see) and knowing your home's radon history (and acting appropriately).*

Several respondents did not know if their home had ever been tested for radon, which drastically lowered the contaminant free principle.

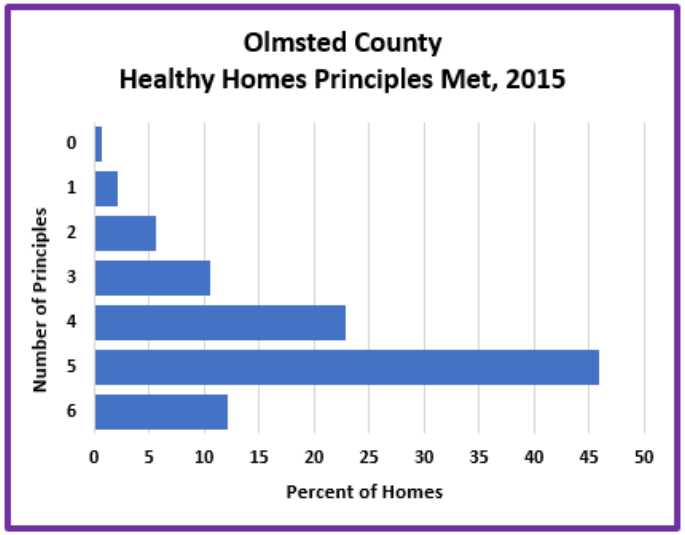
The vast majority (**81%**) of homes across Olmsted County are meeting four or more of the Healthy Homes principles.

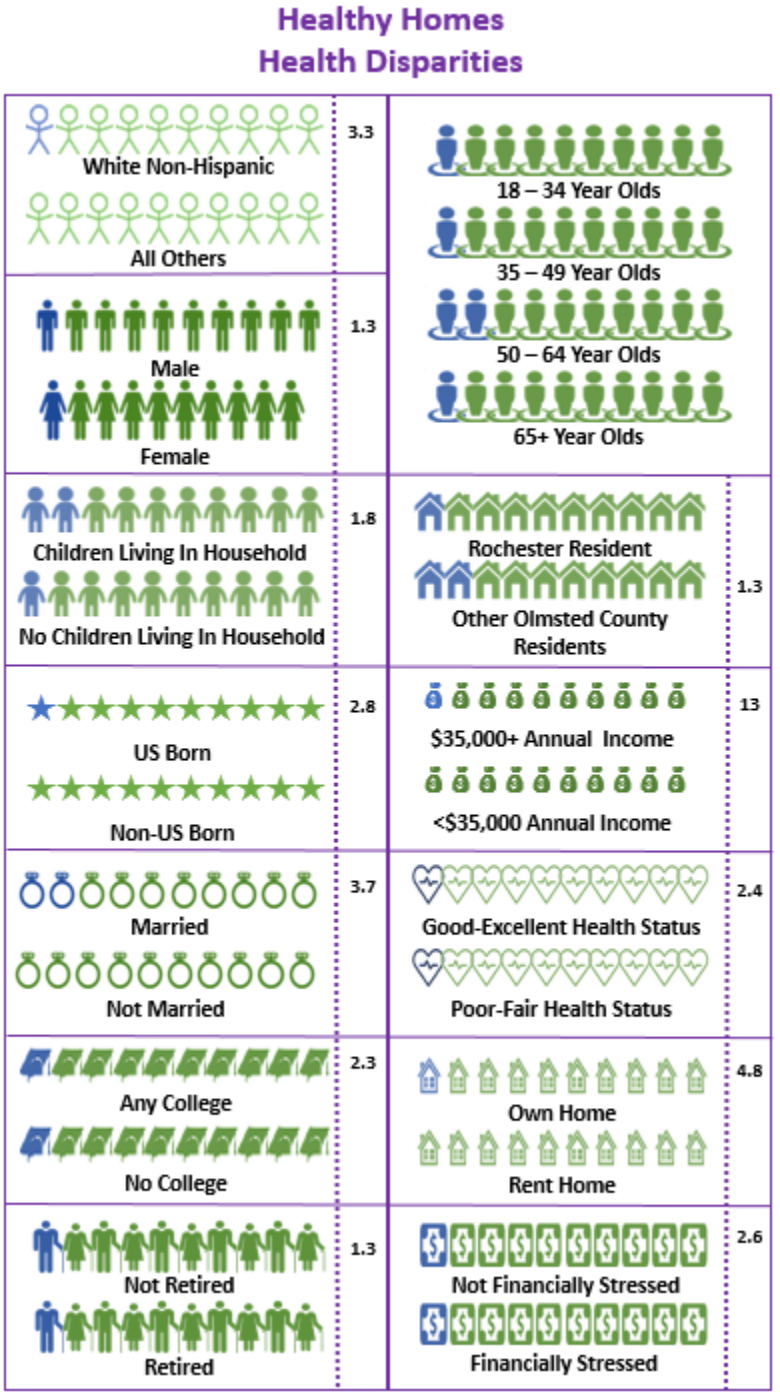
When asked if they believe their home is safe and healthy, 99% of respondents agree that their current housing is safe and 95.5% believe it is healthy.




## Health Disparities

According to local data, healthy homes health disparities currently exist among certain subpopulations throughout Olmsted County. Those that are in good, very good or excellent health; white, non-Hispanic individuals; United States born individuals; and higher income households that own their own home are more likely to report meeting healthy homes principles.




HEALTHY HOMES

# AIR QUALITY

## Definition

Air quality, the state of the air around us, is the degree to which the ambient air is pollution-free, assessed by measuring a number of indicators of pollution. For this assessment, outdoor air quality, measured by air quality index (AQI), is the primary focus. The U.S. Environmental Protection Agency (EPA) developed a simple, uniform way to report daily outdoor air quality conditions known as the AQI. Minnesota AQI numbers are determined by hourly measurements of four pollutants: fine particles (PM2.5), ground-level ozone (O3), sulfur dioxide (SO2), and carbon monoxide (CO). The pollutant with the highest value determines the AQI for that hour. The pollutants that drive the AQI most often are PM2.5 and ozone.

In Olmsted County, there is one air monitoring station located in Rochester.

*Refer to Supplemental Document, Appendix O for Air Quality Index ratings.*

## Data Sources

Healthy People 2020; Minnesota Department of Health; Minnesota Pollution Control Agency

## Community Health Importance

Air pollutants can affect health, the environment, and individuals' quality of life. The severity of these effects varies depending on the type of the pollutant, level of exposure, and individual susceptibility. Children and adults who participate in heavy or extended physical activity, and people with respiratory and cardiovascular diseases are especially vulnerable to the harmful effects of air pollution.

## What does this Health Factor Influence or Impact?

Elevated levels of air pollutants can cause respiratory diseases and cancer, and can affect health in other ways. Poor air quality is linked to premature death, cancer, and long-term damage to respiratory and cardiovascular systems.

## Community Assets

Current community initiatives and organizations working toward air quality includes the Minnesota Pollution Control Agency.

## Community Perception

**Level of Threat/Issue**

Slight → Moderate → Significant → Severe/Extreme

***2% of prioritization participants feel air quality is one of the top health issues impacting Olmsted County residents***

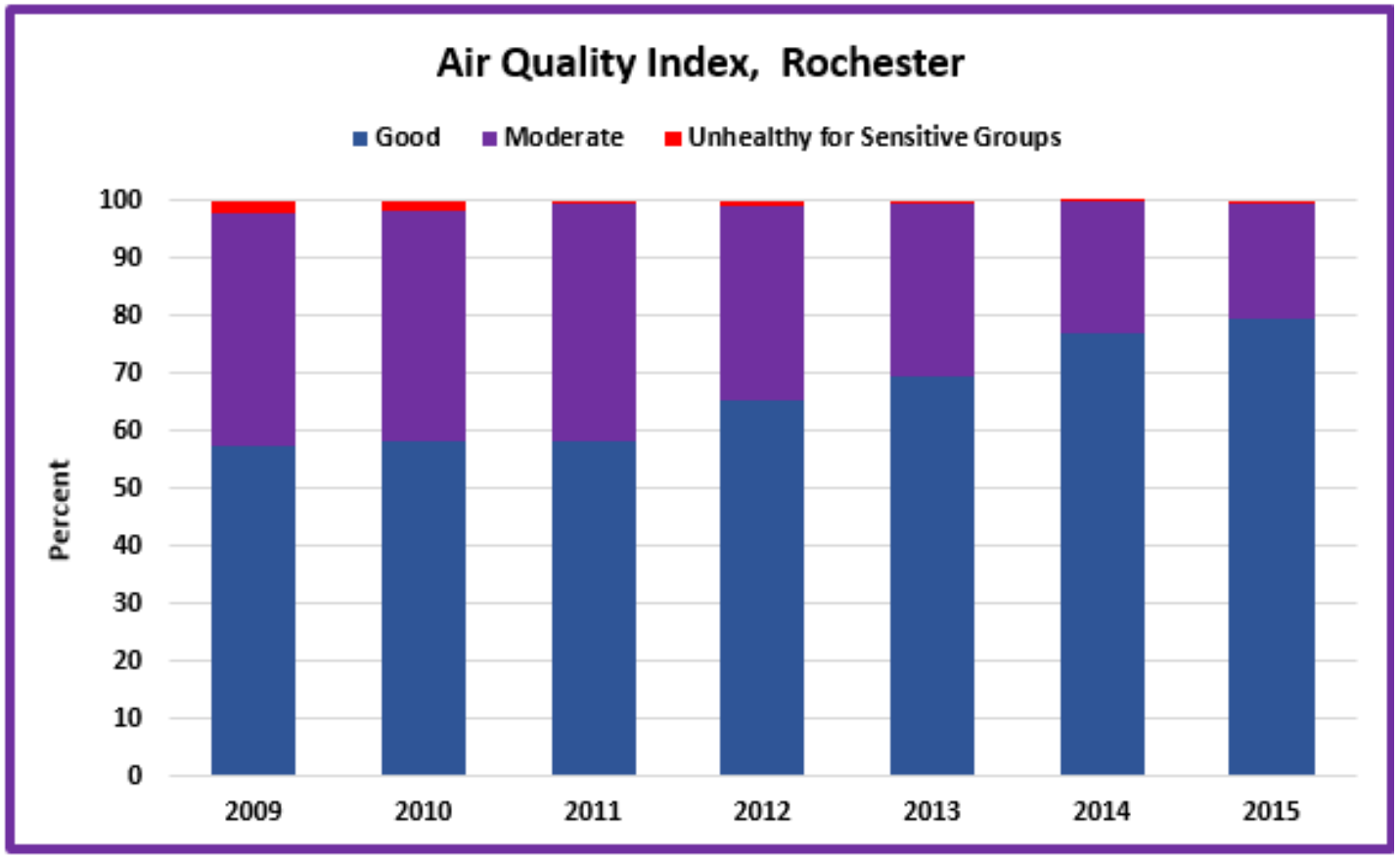
## Area of Greatest Opportunity

While Minnesota meets current federal air quality standards, tougher regulations are expected in the next few years. Meeting those future standards will be difficult, because the major sources of air pollution have changed. On-and off-road vehicles and equipment have replaced industry as the heaviest polluters; and they are not as easily controlled under the traditional regulatory structures Minnesota uses today. Adding additional monitors within Olmsted County would also be beneficial.

## Trend Data with Goal

Minnesota and the Environmental Protection Agency monitor air quality to ensure it is healthy to breathe, to identify the primary types and sources of air pollution, and to better understand what must be done to reduce it. A community would like to see good or moderate AQI ratings.

From 2009 to 2015, Rochester air quality index has not met this measurement anywhere from **one to seven days** per year (averaging two days annually). The number of good air quality days in Rochester has steadily increased since 2009.




## Health Disparities

*Limited local data is available - this data does not allow for any demographic data breakdown; therefore, differences between subpopulations is not available.*

# WATER QUALITY

## Definition

Surface and ground water quality applies to both drinking water and recreational waters. Water quality, for this assessment is focused on drinking water - with special attention placed on the difference between public and private (well) water systems that meet Safe Drinking Water Act (SDWA) Standards.

*Refer to Supplemental Document, Appendix O for Safe Drinking Water Act Standards.*

## Data Sources

Healthy People 2020; Olmsted County CHNA Survey; Olmsted County Community Opinion Survey, 2007; Olmsted County Environmental Resources Annual Report

## Community Health Importance

Olmsted County residents and visitors access drinking water by public water supply systems or private wells. While large portions of residents and visitors access water though the public water supply, there are about 6,000 private wells in Olmsted County.

Bacteria and nitrogen (nitrite and nitrates) are significant risks to private wells in Olmsted County. While public water systems in Olmsted County consistently meet Safe Drinking Water Act (SDWA) Standards, there is a one in four chance that a private well in Olmsted County will have bacteria, elevated nitrogen, or both risks.

## What does this Health Factor Influence or Impact?

Water quality directly influences human health. Exposure to contaminated water presents acute or chronic (or both) health risks. Contamination by infectious agents or chemicals can cause mild to severe illness.

## Community Assets

Current community initiatives and organizations working toward water quality include: Olmsted County Environmental Resources Department and private businesses.

## Community Perception

**Level of Threat/Issue**

Slight → Moderate → Significant → Severe/Extreme

***4% of prioritization participants feel water quality is one of the top health issues impacting Olmsted County residents***

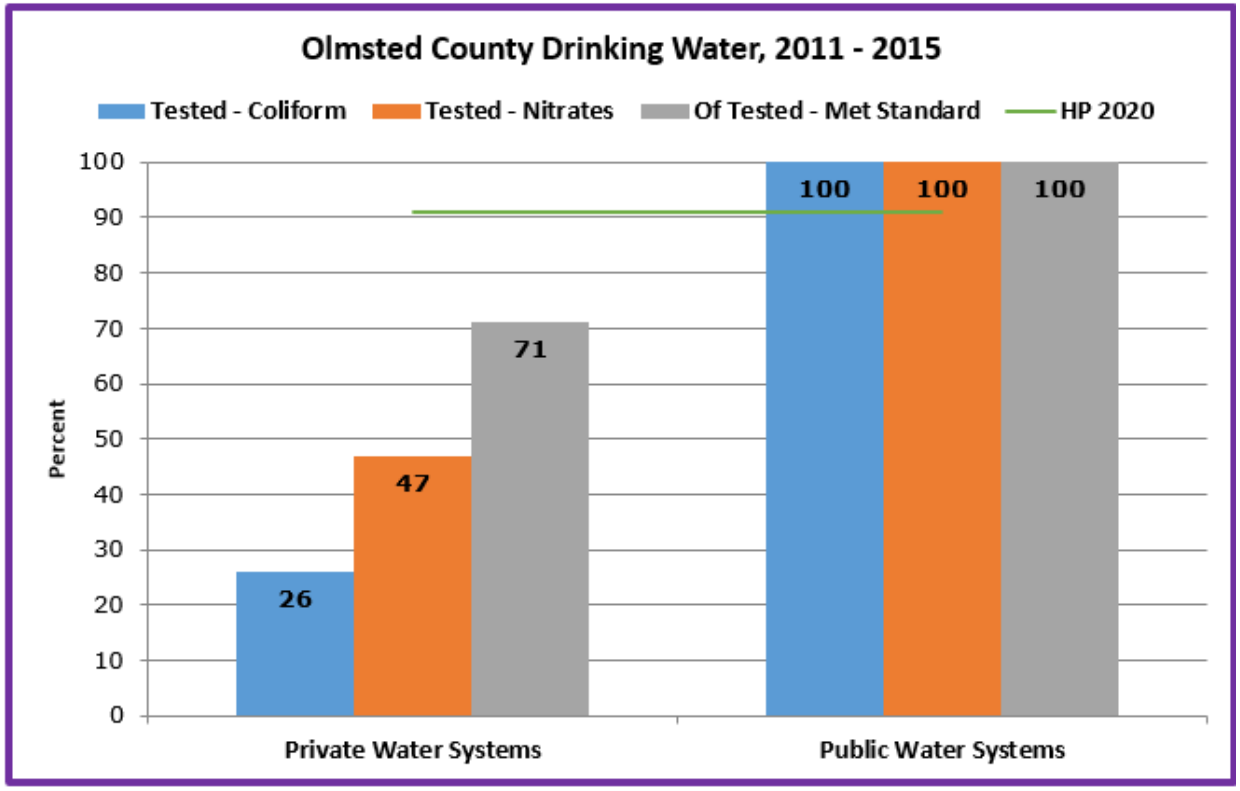
## Area of Greatest Opportunity

A detailed well inventory is underway in the County; work has been completed in 10 of 18 townships. The preliminary results suggest that there are about 3,600 wells constructed in conformance with state and County standards. The Minnesota Department of Health recommends that these wells be sampled at least once every three years; older wells should be sampled annually. Currently, there are about 2,400 older wells still in use in Olmsted County.

## Trend Data with Goal

From 2011-2015, **100%** of Olmsted County *public* water systems tested met Safe Drinking Water Act (SDWA) Standards. Of the approximately 6,000 private wells in Olmsted County, the County's water lab tested 47% for nitrate and 26% for coliform bacteria during the period 2011-2015. Of those wells tested, **71%** met SDWA standards. Of the private wells testing positive for coliform bacteria, 55% were remediated through disinfection and plumbing system corrections .

Unfortunately, of the 6,000 private wells in Olmsted County, there are only about 500 private water well tests completed each year. This is one sixth of the testing rate recommended by the Minnesota Department of Health for private wells in Olmsted County. According to the Olmsted County CHNA Survey, 14.6% of Olmsted County residents are on a well water supply.




## Health Disparities

Residents using private wells in Olmsted County constructed prior to the 1957 (adoption of Olmsted County Water Well Code) are at increased risk of not meeting SDWA standards due to drinking water from the upper aquifers which typically have measurable contaminants. In addition, wells constructed prior to 1957 may have substandard well and plumbing construction which can increase risk for introduction of contaminants. Currently, there are about 2,400 of these older wells in use in Olmsted County.

# Record of Changes and Updates

| Date | Changes/Updates Summary | Responsible Person(s) |
|---|---|---|
| April 27, 2017 | Insurance Coverage data sources<br>Transient Health Disparities Chart | Vicky Kramer |
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# LIST OF APPENDICES

The Supplemental Document is made up of several appendices that will assist with further understanding of the community health needs assessment process, methodology and data. These appendices include:

A. Community Health Needs Assessment Group Memberships

B. Timeline

C. Methodology

D. Community Listening Sessions Summary Report

E. Prioritization Process

F. Community Survey

G. University of Minnesota Rochester Community Collaboratory

H. Health Disparities Tables

I. Healthy People 2020 Objectives

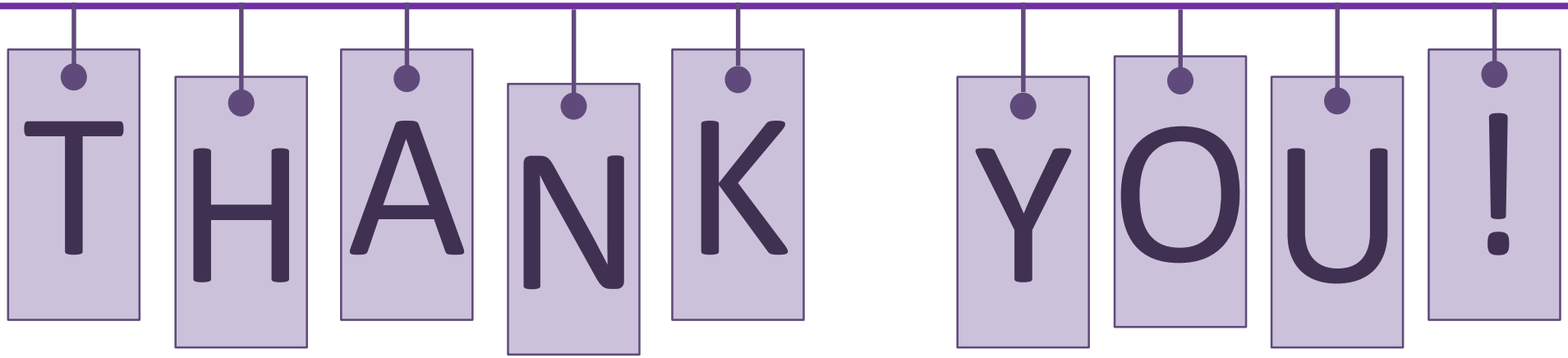
J. Potential Indicators to Add to the Next CHNA Process

K. Data Sources

L. Rochester Epidemiology Project Definitions

M. Organizational Requirements

N. Further Indicator Definitions




**A special thank you to all the individuals, organizations and partners who have been involved throughout the assessment process.**

**Thank you to the citizens of Olmsted County for participating in the community survey, listening sessions and prioritization process sessions.**

**Thank you to the University of Minnesota Rochester Community CoLab students for helping further understand the needs of 18-24 year olds.**

**The development of the process and final documents would not have been feasible without**

**LEADERSHIP, GUIDANCE and DIRECTION**

**from the:**

**CHNA Data Subgroup**
**CHNA/CHIP Core Planning Group**
**CHIP Workgroup Lead Organizations**
**Coalition for Community Health Integration**
**Health Assessment and Planning Partnership**

Questions regarding this report can be directed to:
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