Olmsted County, Minnesota
Community Health Needs Assessment
2013

A Collaborative Effort Lead by:
Olmsted County Public Health Services
Olmsted Medical Center
Mayo Clinic
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Contributing Organizations

Child Care Resource and Referral/Head Start
Family Services Rochester
National Alliance on Mental Illness (NAMI) of SE Minnesota
Olmsted County Community Services
Olmsted County Planning Department
Migrant Health
Rochester Community and Technical College
Salvation Army
United Way of Olmsted County
University of Minnesota Rochester
Zumbro Valley Mental Health Center
A Collaborative Effort
Olmsted County Public Health Services (OCPHS), Olmsted Medical Center (OMC), and Mayo Clinic (Mayo) 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. New State and Federal requirements provide these three organizations with an additional opportunity to collaborate. For the first time, local public health agencies are required to develop a health improvement plan with and for the community. Additionally, Federal guidelines now require non-profit hospitals to assess local community health needs. Each organization agreed that one joint community health needs assessment (CHNA) was the best strategy and asset for the community going forward. In early 2012, the three organizations began planning for a joint CHNA and Community Health Improvement Plan (CHIP) to be completed in 2013.

Framework and Format
Establishing the framework in which to develop the CHNA and overall product format was done at very early stages. The CHNA framework is based on the County Health Rankings format 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 areas for greatest opportunity.

Knowing that this is the first iteration of the collaborative approach, some health indicators do not have data/information for every section; however, after another cycle, we hope to have every indicator following the full format.

Health Indicators
A systematic, yet informal, process of identifying local indicators was conducted to populate the framework. This process included seeking input for potential indicators from: (1) CHNA Core Group organizations; (2) CHNA Data Subgroup members; (3) Community Healthcare Access Collaborative (CHAC) CHNA Workgroup members; and (4) results from a community organization survey. Consolidating all responses led to a total of 148 potential health indicators.

The CHNA Data Subgroup then narrowed the number of health indicators based upon criteria (i.e. community importance, readily available data) to 38 health indicators. These final indicators were proposed to the Core Group and were approved for further consideration, research, and prioritization. There are only 35 indicators in the current CHNA. During compiling data, it was apparent 3 did not have sufficient data to be presented in this document.

Data Sources
Numerous data sources were used in the CHNA, including but not limited to: Minnesota Student Survey; Rochester Epidemiology Project; Minnesota Department of Health, Center for Health Statistics; Olmsted County CHNA 2013 Survey; and Olmsted County Listening Sessions. The 2013 CHNA Survey was a community survey conducted to gain 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. As a result, listening sessions were conducted with members of various underrepresented groups, including: Hispanic, Somali, Cambodian, South Sudanese, and under and unemployed community residents.

Prioritization Process
Once sufficient data was collected on each health indicator, a process to prioritize the indicators was determined. Each health indicator was scored on objective (at risk, affected, trend, and premature death) and subjective factors (quality of life, economic impact, community perception, ability to impact, and additional resources needed). Objective scores were predetermined and approved through the CHNA Data Subgroup. Subjective scores were gathered through five separate groups: CHAC Workgroup; Mayo Clinic Employee and Community Health Executive Leadership; OCPHS Strategic Management Committee; OMC Leadership; and OCPHS Advisory Board.

The results from each of the five prioritizations 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 CHIP, the Core Group and Data Subgroup further refined the priority list to the Top 5 Community Health Priorities: Mental Health, Obesity, Financial Stress/Homelessness, Diabetes, and Vaccine Preventable Diseases.

Community Health Improvement Plan
Now that the community health priorities have been identified, the next step is to work towards a Community Health Improvement Plan that will address each issue over the next three to five years. Efforts will begin by bringing relevant individuals and organizations together to identify and work cooperatively toward effective strategies and interventions to alleviate the health issues.

For full methodology and additional documents, please refer to ‘Supplemental Document’.
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Community Health Needs Assessment
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TOP 5 COMMUNITY HEALTH PRIORITIES

MENTAL HEALTH
10% of youth feel sad all or most days
Adults average 3 days of mental health issues monthly

OBESITY
64% of adults are overweight (BMI>25.0)
with 28% being obese (BMI >30.0)

FINANCIAL STRESS/HOMELESSNESS
26% of adults have had a time in the last year when they have been worried or stressed about having enough money to pay monthly bills

DIABETES
8% of population currently living with diabetes
20% of adults 65 years and older have diabetes

VACCINE PREVENTABLE DISEASES
76% of children are up to date with the recommend immunization series
60% of residents receive annual flu shot
Demographics

Olmsted County is located in the southeastern part of Minnesota, approximately 80 miles southeast of the Minneapolis/St. Paul 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 8th 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 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 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.

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 White 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 2011 American Community Survey (2011 ACS) reports that 13,292 foreign born persons reside in Olmsted County. According to the 2011 ACS, 12.4% of people over the age of 5 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 2007-2011 ACS estimates, Olmsted County had a median household income of $66,202, compared to $58,476 for Minnesota and $52,762 for US. However, outside the Minneapolis/St. Paul metropolitan area, Olmsted County has the third highest free and reduced lunch enrollment in schools, which is an indicator of low socioeconomic status.

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, IBM, Rochester Public Schools, Olmsted County, Olmsted Medical Center, City of Rochester, Charter Communications, Crenlo, Rochester Community and Technical College, Federal Medical Center, Seneca Food, and Hiawatha Homes.
### Race and Ethnicity Makeup of Olmsted County; US Census

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

*NOTE: These categories were not available to respondents in the 1990 Census*
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 – 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, including: obesity, diabetes, mental health and asthma.
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Health Outcomes

Mortality

Infant Mortality
Overall Mortality
Life Expectancy
Definition:
Infant mortality is defined as any death of an infant before his or her first birthday. Infant mortality is often expressed as the rate of infant deaths per 1,000 live births. For this assessment, infant deaths and births were combined across 10 years to create a more stable rate due to local infant deaths varying so drastically year to year.

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 loss of an infant carries a heavy social burden, may carry a heavy economic burden and results in many years of life lost. Infant mortality is often used to compare the adequacy of health care and community resources in developed, industrialized and world leader countries.

High rates of infant mortality indicate the existence of broader issues pertaining to access to care and maternal and child health – ultimately issues that are changeable, making infant mortality preventable.

What Led to This Health Outcome?
Infant mortality has been linked to many community factors including health literacy, access and use of early and adequate prenatal care, socioeconomic status and health beliefs. In addition, infant mortality is associated with specific birth outcomes including premature births and low weight births.

Current Community Perception:
Current community perception regarding infant mortality is unknown.

Current Level of Community Capacity:
Olmsted County has one of the highest rates of physicians per capita in the United States. Clinicians for both low risk and high risk pregnancy management are available locally. In addition to two Level II nurseries, a neonatal intensive care unit is locally available.

Current community initiatives and organizations that work towards decreasing infant mortality rates and associated maternal and child health issues include: Birthright; March of Dimes; Mayo Clinic; Olmsted County Public Health Services; Olmsted Medical Center; Planned Parenthood; United Way of Olmsted County.

Area of Greatest Opportunity:
Continue work around prenatal classes and home visits. Further research is needed at the local level to identify the causes in the apparent racial disparities.

Click here to comment on this indicator

*NOTE: Infant Mortality is an important health indicator for Olmsted County; however, some sections are currently blank due to limited, local data sources.
Trend Data with Goal:
Infant mortality rates (IMR) have progressively decreased since the mid 1900s; however, the trend at a national level slowed during the last decade – hovering around a rate of 7 infant deaths per 1,000 live births. The state of Minnesota consistently sees a slightly lower IMR; recent data (2001-2010) has the state’s IMR at 5.4.

Olmsted County has averaged six infant deaths per 1,000 live births over the last decade (2001-2010).

[Interpret data with caution due to data aggregation. Infant deaths substantially vary year to year at a county level – to get a more stable rate, 10 years of data was combined.]

Healthy People 2020 has a broad maternal, infant, and child health goal of improving the health and well-being of women, infants, children, and families. One specific objective is to reduce the rate of all infant deaths by 10% – from the baseline of 6.7% (2008) to 6.0%.

Health Inequities:
National, State and Olmsted County level data demonstrates a chronically higher level of infant mortality among black infants. The infant mortality rate among black babies in Olmsted County is 2.5 times higher than white babies (14.2 vs. 5.7, respectively).
Overall Mortality

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, and 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; Olmsted County Community Health Needs Assessment (CHNA) 2013 Survey

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 health care services.

Current Community Perception:
Specific risk factors (i.e. obesity, smoking, diet) and causes (i.e. heart disease, cancer) of premature death were listed as pressing health issues impacting Olmsted County (2013 Olmsted County CHNA Survey). Chronic disease and infectious diseases were mentioned as two major community health concerns during the community listening sessions.

Current Level of Community Capacity:
There are many current community initiatives and organizations that work towards decreasing mortality rates and associated health risk behaviors, including: Mayo Clinic; Olmsted County Public Health Services; Olmsted Medical Center.

Area of Greatest Opportunity:
As was previously mentioned, cancer and heart disease continue to be leading causes of death. Prevention is key – heart disease and cancer are preventable through better use of health care resources and better lifestyle choices (i.e. diets, physical activity, tobacco use).

What Led to This Health Outcome?
Deaths, specifically premature deaths, are caused by different conditions throughout the age spectrum. Before the age of 45, many premature deaths are caused by injuries – both unintentional (i.e. motor vehicle accidents) and intentional (i.e. suicide). After the age of 45, the majority of premature deaths are due to preventable disease – with tobacco use and obesity being high on the list of underlying risk factors.
Trend Data with Goal:

Overall mortality rates continue to decline on a national basis – and are also apparent within local data. Olmsted County has a current mortality rate of 583 deaths per 100,000 population (2006-2010, age-adjusted); a decrease of approximately 20% since the early 1990s.

Heart disease, cancer, chronic lower respiratory disease, and stroke have been the leading causes of death for many decades, with heart disease being the number one cause of death in the United States. In Minnesota and Olmsted County cancer has actually eclipsed heart disease and is now the leading cause of death.

According to the most recent data available (aggregate 2008-2010), Olmsted County averages approximately 900 deaths per year; cancer (26%) and heart disease (20%) account for nearly half of all the deaths in the County.

[Interpret presented data with caution due to aggregating numerous years of data to have valid data points.]

Many of the Healthy People 2020 goals have objectives related to cause-specific mortality (i.e. reduce homicide, cancer, heart disease, etc.; mortality rates); however, there is no objective related to reducing overall mortality.

Health Inequities:

Limited local data is available related to health inequalities across race and ethnicity groups due to the relatively small number of deaths (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 (497 vs. 688, age-adjusted).

Leading causes of death among adolescents and young adults continue to be unintentional injuries (i.e. car accidents), accounting for 41% of all deaths in this age group. Suicide is the second leading cause of death among both 15-24 year olds (28%) and 25-44 year olds (19%) age cohorts.
**Definition:**
Life expectancy is often used to describe the overall health status of a population, and is a summary mortality measure. Life expectancy is defined as the average number of years a population of a certain age would be expected to live, given a set of age-specific death rates. For this assessment, life expectancy is given as a measurement at birth (i.e. on average, how long a newborn is expected to live).

A similar metric is premature deaths, which is usually reported as years of potential life lost (YPLL). 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 persons contribute more to the YPLL measure than deaths among older persons. 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 some 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 lost life. In addition, the years of lost life can be equated with years of lost productivity.

**What Led to This Health Outcome?**
Individual characteristics and health behaviors, access to and use of health care services including early detection and preventive services, environmental factors and poverty all influence life expectancy and premature death.

**Current Community Perception:**
Specific risk factors (i.e. obesity, smoking, diet) and causes of premature death (i.e. heart disease, cancer) were listed as pressing health issues impacting Olmsted County (2013 CHNA Survey).

Chronic diseases and infectious diseases were mentioned as two major community health concerns during the community listening sessions. During the listening sessions, there appeared to be awareness of the need for several preventive approaches to these problems.

**Current Level of Community Capacity:**
Current community initiatives and organizations that work towards increasing life expectancy include: Mayo Clinic; Olmsted County Public Health Services; Olmsted Medical Center.

**Area of Greatest Opportunity:**
No specific opportunity regarding life expectancy was identified during the CHNA process.

*NOTE: Life expectancy is an important health indicator for Olmsted County; however, some sections are currently blank due to limited, local data sources.*
Trend Data with Goal:

Nationwide, life expectancy at birth is continuing to increase; the latest estimates from 2011 are at just under 79 years of life. On average, a baby born in the United States is estimated to live approximately 79 years. There is a slight increase in this estimate for Minnesota, at 80.9 years of life.

Olmsted County’s estimated life expectancy is even greater – at 82.4 years. Residents of Olmsted County are expected to live, on average, about 4 years longer than a typical US resident.

Excluding perinatal and congenital conditions, homicide, suicide, HIV/AIDS, and unintentional injuries are the leading causes of death that impact premature death (contribute to significant years of life lost). For example, a person committing suicide, on average (2010), would lose approximately 36 years of life – or would die when he or she was 39 years old.

<table>
<thead>
<tr>
<th>COD - 2010</th>
<th># Deaths</th>
<th>Avg. YPLL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perinatal</td>
<td>5</td>
<td>72.5</td>
</tr>
<tr>
<td>Homicide</td>
<td>2</td>
<td>63.8</td>
</tr>
<tr>
<td>Congenital</td>
<td>8</td>
<td>46.6</td>
</tr>
<tr>
<td>Suicide</td>
<td>17</td>
<td>35.9</td>
</tr>
<tr>
<td>HIV/AIDS</td>
<td>2</td>
<td>30.0</td>
</tr>
<tr>
<td>Unint. Injury</td>
<td>41</td>
<td>16.7</td>
</tr>
<tr>
<td>Cirrhosis</td>
<td>12</td>
<td>14.2</td>
</tr>
<tr>
<td>P&amp;Flu</td>
<td>13</td>
<td>8.7</td>
</tr>
<tr>
<td>Cancer</td>
<td>234</td>
<td>6.9</td>
</tr>
<tr>
<td>Diabetes</td>
<td>9</td>
<td>4.4</td>
</tr>
</tbody>
</table>

Health Inequities:

Limited local data is available related to health inequalities across race and ethnicity groups; however, differences across gender groups are easy to detect. Olmsted County females continue to have a substantially higher life expectancy than males (84.1 vs. 80.1, age-adjusted).
Morbidity

Vaccine Preventable Diseases
Adult Obesity
Diabetes
Multiple Chronic Conditions
Dental Disease
Mental Health
Asthma
Chronic Obstructive Pulmonary Disease
Definition:
Vaccine-preventable diseases (VPDs) are those diseases in which there is a current vaccine available and recommended for the entire population to reduce, eliminate, or maintain elimination of these diseases. For this assessment, specific focus is placed on current levels of immunizations including influenza and the recommended childhood immunization series.

Data Sources:
Centers for Disease Control and Prevention (CDC); National Immunization Survey; Healthy People 2020; Minnesota Department of Health; Olmsted County Community Healthy Needs Assessment 2013 Survey; Olmsted County Public Health Services; SE Minnesota Immunization Connection; US Department of Health & Human Services, Health Indicators Warehouse

Community Health Importance:
The increase in life expectancy during the 20th century is largely due to improvements in child survival; this increase is associated with reductions in infectious disease mortality, due largely to immunization. However, infectious diseases remain a major cause of illness, disability, and death. Immunization recommendations in the United States currently target 17 vaccine-preventable diseases across the lifespan.

What Led to This Health Outcome?
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 (this includes DTap, Td, Hib, Polio, MMR, Hep B, and varicella vaccines), society saves 33,000 lives; reduces 14 million cases of disease; reduces direct health care costs by $9.9 billion; 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.

Current Community Perception:
According to the 2013 CHNA Survey, influenza was noted to be one of the most pressing community health issues impacting Olmsted County. Additionally, individuals believe that flu (shot) information and immunization/vaccination information are top types of public health information that would be useful for them or their family.

Vaccine-preventable diseases were discussed during the community listening sessions. Vaccinations were mentioned as preventive care and actives to reduce infectious diseases. Infectious diseases were identified as a major community health concern.

Current Level of Community Capacity:
Mayo Clinic, Olmsted County Public Health Services, and Olmsted Medical Center all provide immunizations through the lifespan. All three providers also participate in the Minnesota Vaccines for Children program which provides free vaccines to qualified children who are uninsured, underinsured, on Medical Assistance or Minnesota Health Care Plan, or those who are American Indian or Alaskan native. Mayo Clinic and Olmsted Medical Center bill insurance for vaccines; Olmsted County Public Health Services provides sliding fee scale for persons of low income at all ages who qualify for services.

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; continued use of the State immunization information system.

Click here to comment on this indicator
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. Healthy People 2020 has a broad goal of increasing immunization rates and reducing preventable infectious diseases. Specific to childhood immunization, Healthy People 2020 objective is to increase the percentage of children aged 19-35 months who receive the recommended doses of DTaP, polio, MMR, Hib, hepatitis B, varicella, and pneumococcal conjugate vaccine (PCV) from a baseline of 44.3% (2009) to 80.0%. Currently (2011), 76.7% of Olmsted County children are fully vaccinated with the recommended childhood immunization series. Olmsted County is still below the HP 2020 goal, which ultimately leads to a greater number of vulnerable children during outbreak settings.

Influenza Vaccine
During the 2011-2012 influenza season, approximately 60% of all Olmsted County residents (six months and older) received the influenza vaccine. Olmsted County’s overall coverage is drastically higher than the US and State coverage rates (41.8% and 47.2%, respectively). However, when looking at children (6 months – 17 years of age), this increase fades away – Olmsted County, along with Minnesota and the US, hovers around 53% of children receiving their flu shots. Specific to influenza vaccine, Healthy People 2020 objective is to increase the percentage of individuals who receive the annual flu shot to 80%.

Health Inequities:
There are slight health inequities noticed among children receiving the recommended full immunization series, most notably within poverty levels. At a national level (2011), children in households above the poverty line were at 76% complete coverage, where children in households below the poverty line were at 70% complete coverage.
**Definition:**
An adult is classified as obese if he or she has a BMI (body mass index) of 30 or higher. The body mass index is a tool to measure a person’s body fat based on weight and height (kg/m²). For this assessment local weight status was assessed during the 2013 CHNA survey. Height and weight measurements were given (self-reported) and self-perceived weight status was ascertained.

**Data Sources:**
Centers for Disease Control and Prevention (CDC); CDC, Behavioral Risk Factor Surveillance System (BRFSS); CDC, National Health and Nutrition Examination Survey; Healthy People 2020; Olmsted County Community Health Needs Assessment (CHNA) 2013 Survey

**Community Health Importance:**
Obesity is associated with many health related problems from diabetes, heart disease, hypertension, premature mortality to mental health issues. Obesity increases the overall cost of health care placed on society.

**Current Community Perception:**
According to the 2013 CHNA Survey, obesity was cited as the most pressing community health issue impacting Olmsted County; diet and healthy eating were also among the top issues mentioned. Additionally, individuals believe that diet, healthy eating, nutrition, and weight loss are all top types of public health information that would be useful for them or their family.

Diet, nutrition, physical activity and the impacts of obesity were discussed during the community listening sessions. Lifestyle modification and prevention care were two areas of discussion for the community residents. From diet and nutrition, each session group had in-depth conversations about the need for more preventive care and services to reduce preventable disease.

**Current Level of Community Capacity:**
There are many current community initiatives that promote eating more fruits and vegetables and becoming more physically active, including: Eat Smart, Be Smart (Rochester Community & Technical College); Farm to School programs; Farmers Market expansions and the acceptance of EBT (Electronic Benefit Transfer); the regional Food Policy Council; Healthy Concessions (Mayo Field); Statewide Health Improvement Program (SHIP); Worksite Wellness.

**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 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 for snacks continues to be a local community goal.

[Click here to comment on this indicator](#)
**Trend Data with Goal:**

According to the most recent survey data available (BRFSS, 2011), approximately 25.7% of Minnesota and 27.8% of US adults are obese.

To measure self-perception of weight status, 2013 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. Information gathered from the 2013 CHNA Survey indicates that 45% of survey respondents believe they are currently overweight. This figure rises considerably when looking at BMI calculations – 64% of Olmsted County adults are overweight, with 28% being obese.

[Obesity statistics vary drastically according to the dataset, data source and question format used. Interpret presented data with caution due to limited available data sources – prevalence estimates may differ from published data.]

Healthy People 2020 has a broad nutrition and weight goal of promoting health and reducing chronic disease risk through the consumption of healthful diets and achievement and maintenance of healthy body weights. A specific objective around weight status is to reduce the proportion of adults who are obese by 10% - from a baseline of 33.9% (2005-2008) to 30.5%.

**Health Inequities:**

Obesity is a problem throughout the whole nation. However, among adults, the prevalence is highest for middle-aged people and for non-Hispanic black and Mexican American women. The association of income with obesity varies by age, gender, and race/ethnicity.

Limited sub-population breakdown is available at the local level. However, local estimated assessed during the 2013 CHNA Survey show the highest obesity disparity between Hispanic (47.1%) and non-Hispanic (26.8%) individuals.
Definition:
There are many forms of diabetes mellitus (DM). The three most common types are: juvenile onset or Type I; older adolescent and adult onset or Type II; and gestational diabetes. The metric for this assessment estimates, through the Rochester Epidemiology Project, overall DM disease prevalence as a percentage of total population.

Data Sources:
Centers for Disease Control and Prevention (CDC); CDC, Behavioral Risk Factor Surveillance System (BRFSS); CDC, National Health and Nutrition Examination Survey; Healthy People 2020; Olmsted County Community Health Needs Assessment (CHNA) 2013 Survey; Rochester Epidemiology Project

Community Health Importance:
DM affects an estimated 23.6 million people in the United States and is a top leading cause of death.

DM 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 health care utilization and costs for people with DM are much higher than those for people without DM since many of those with DM are unable to follow the required lifestyle changes and therefore have uncontrolled blood sugars which result in higher rates of complications.

The rapid, often termed epidemic, increase in DM puts high demand on health care services including patient education and forces the profession including public health to address the wide spread issues of low to modest health literacy. Because DM requires patients 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 is not preventable but treatable. Type II DM is closely associated with obesity and has been increasing in frequency for the past several years. Type II DM 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 DM.

Current Community Perception:
According to the 2013 CHNA Survey, diabetes was cited as one of the most pressing community health issue impacting Olmsted County; diet and healthy eating were also among the top issues mentioned. Additionally, individuals believe that diabetes, diet, healthy eating, nutrition, weight loss, and preventive health information are all top types of public health information that would be useful for them or their family.

Diet, nutrition, physical activity and the impacts of obesity were discussed during the community listening sessions. Lifestyle modification and prevention care were two areas of discussion for the community residents. From diet and nutrition, each session group had in-depth conversations about the need for more preventive care and services to reduce preventable disease.

Current Level of Community Capacity:
Current community organizations and initiatives that promote diabetes education, prevention and treatment, include: Mayo Clinic; Olmsted Medical Center; Statewide Health Improvement Program (SHIP); medical and public health diabetes education.

Area of Greatest Opportunity:
The increase in DM 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 DM onset.

Improving health literacy may be another major opportunity. By increasing health literacy it may be feasible to increase the number of people with DM who can adequately self manage their DM to prevent complications and need for emergency room visits and hospitalizations.

Click here to comment on this indicator
**Trend Data with Goal:**

According to the most recent survey data available (BRFSS, 2010), approximately 7% of Minnesota and 9% of US adults have been told by a doctor that they have diabetes (excluding gestational diabetes).

Data gathered from the Rochester Epidemiology Project (REP) indicates that approximately 8% of Olmsted County residents are currently living with diabetes. Local data shows a slight increasing trend over the last several years; however, data should be interpreted with caution.

*Diabetes statistics vary drastically according to the dataset, data source and question format used. Interpret presented data with caution due to limited available data sources – prevalence estimates may differ from other published data.*

Healthy People 2020 has a broad diabetes goal of reducing disease and economic burden of DM and improve the quality of life for all persons who have, or are at risk for, DM. There are a variety of objectives related to diabetes; however, no metric measures overall diabetes prevalence.

<table>
<thead>
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<td>20.22</td>
</tr>
</tbody>
</table>

**Health Inequities:**

People from minority populations are more frequently affected by Type II DM. Minority groups constitute 25% of all adult patients with diabetes in the US and represent the majority of children and adolescents with Type II DM.

In Minnesota and the US overall, DM 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 DM following arrival in the US and changes in diet and exercise.

Men in Olmsted County have higher rates of diabetes as compared to women (8.9% vs. 6.6%, respectively). Additionally, the highest diabetes prevalence is seen in the oldest aged cohort – adults 65 years of age and older – at 20.2%.
**Definition:**
People with multiple chronic conditions are those with three or more chronic diseases that require treatment or are treatable. For example, an individual diagnosed with heart disease, COPD and depression would be considered to be living with multiple chronic conditions even though the conditions could be related to smoking.

**Data Sources:**
Centers for Disease Prevention and Control; Healthy People 2020; Olmsted County Community Health Needs Assessment 2013 Survey

**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. The health risk behaviors of tobacco use and obesity are two major factors leading to the presence of multiple chronic conditions, including cancer, heart disease, and diabetes.

**Current Community Perception:**
According to the 2013 CHNA Survey, issues related to aging (elder health) was cited as one of the most pressing community health issue impacting Olmsted County; obesity, cancer, diabetes, and mental health were also among the top issues mentioned, however the topic of multiple chronic conditions was not listed. Additionally, individuals believe that preventive health information is a top type of public health information that would be useful for them or their family.

Major community health concerns that were discussed during the community listening sessions included mental health and chronic diseases.

**Current Level of Community Capacity:**
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 initiative that promote this integration include: Mayo Clinic; Olmsted Medical Center; Olmsted County Public Health Services; case management; electronic health management and sharing.

**Area of Greatest Opportunity:**
No specific opportunity regarding multiple chronic conditions was identified during the CHNA process.

*NOTE: Multiple chronic conditions is an important health indicator for Olmsted County; however, some sections are currently blank due to limited, local data sources.*
Trend Data with Goal:
Currently we have no local estimates of how many people are living in our community with multiple chronic conditions; however, researchers in Olmsted County (Rochester Epidemiology Project) are beginning work in this area.
While Healthy People 2020 has numerous goals around specific chronic diseases, there are currently no goals or objectives related to the proportion of the population that is living with multiple chronic conditions.

Health Inequities:
Limited local data is available – this data does not allow for any demographic data breakdown, therefore differences between subpopulations is not available.
Dental Disease*

**Definition:**
For this assessment, dental disease is defined as having an oral health problem, including: toothaches, decayed teeth/cavities, broken teeth, and bleeding gums.

**Data Sources:**
Centers for Disease Control and Prevention (CDC); CDC, Behavioral Risk Factor Surveillance System; CDC, National Health and Nutrition Examination Survey; CDC, National Survey of Children’s Health; Healthy People 2020

**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.

**What Led to This Health Outcome?**
Several factors affect dental and oral health including regular and proper brushing and flossing of teeth, regular dental care, overall health, tobacco and alcohol use, avoiding overuse of sugar saturated foods such as gum, hard candies, fruit juices as well as infants prolonged use of bottle feeding and being put to bed or naps with a bottle.

Barriers that can limit a person’s use of preventive interventions and treatments include: limited access to and availability of dental services; lack of awareness of the need for care; cost; and fear of dental procedures.

**Current Community Perception:**
2013 CHNA Survey respondents did not cite dental disease or problems with dental issues as a pressing health issue. However, during the community listening sessions, dental health was listed as a major community health concern. Dental health care was mentioned as a concern due to the lack of health care providers in the area that take public insurance.

**Current Level of Community Capacity:**
While the community has several private dentists and dental clinics, only a limited number of those providers accept patients with public insurance, including: Good Samaritan Dental Clinic; Apple Tree Dental.

**Area of Greatest Opportunity:**
No specific opportunity regarding dental disease was identified during the CHNA process.

*NOTE: Dental disease is an important health indicator for Olmsted County; however, some sections are currently blank due to limited, local data sources.*
Trend Data with Goal:

According to the 2007 National Survey of Children’s Health, 20% of Minnesota children have at least one oral health problem. Inferring this statistic to Olmsted County would indicate that approximately 7,200 children in the community have oral health problems. [Interpret presented data with caution due to extrapolating from Minnesota data.]

Healthy People 2020 has a broad oral health goal of preventing and controlling oral and craniofacial diseases, conditions, and injuries, and improve access to preventive services and dental care. A specific objective around childhood oral health is to reduce the proportion of children and adolescents who have dental caries in their primary or permanent teeth.

Health Inequities:

In general, people with lower levels of education and income, and people from minority population groups have higher rates of oral disease. People with disabilities and other health conditions, like diabetes, are more likely to have poor oral 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 disorder (oppositional disorder) that some consider unique to that age group and the developing brain. For this assessment, separate adolescent and adult metrics are presented around mental health conditions and medical care.

Data Sources:
Centers for Disease Control and Prevention (CDC); CDC, National Survey of Children’s Health, 2007; Healthy People 2020; Minnesota Department of Health, Minnesota Student Survey (MSS); National Institute of Mental Health; Olmsted County Community Health Needs Assessment (CHNA) 2013 Survey

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.

People with both acute and chronic mental health conditions are often under recognized and under treated, leaving them with a significant burden. People with chronic mental illnesses have a shortened life span, a lower rate of full time and steady employment, and higher rates of homelessness.

What Led to This Health Outcome?
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 prevent discussion of the symptoms and may prevent seeking or receiving appropriate and needed health care services. For those who are chronically mentally ill, this can also disrupt having a home and a sense of any community.

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.

Current Community Perception:
According to the 2013 CHNA Survey, mental health issues (illness and depression) were cited as the one of the most pressing community health issue impacting Olmsted County.

Mental health was discussed during the community listening sessions; mental health was listed as a major community health concern. Mental illness was discussed in the context of children being diagnosed with autism and ADD/ADHD. Several residents discussed the issues of addiction, depression, and stress management.

Current Level of Community Capacity:
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 community initiatives and organizations working toward improving mental health issues include: ABC Child and Family Therapy; Bluestem Center; Community Behavioral Health Hospital; Family Services Rochester; Fernbrook Family Center; Mayo Clinic, St. Mary’s Hospital; Minnesota Parents Know; National Alliance on Mental Illness (NAMI) SE Minnesota; 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; Zumbro Valley Mental Health

Area of Greatest Opportunity:
Progress is needed in mental health insurance coverage.

*NOTE: mental health is an important health indicator for Olmsted County; however, some sections are currently blank due to limited, local data sources.*
Trend Data with Goal:

According to the most recent survey data available (Minnesota Student Survey, 2010), over 10% of all Olmsted County adolescents feel sad all or most days. The level of self-reported depression continues to increase regardless of school grade.

Adult mental health status was assessed during the 2013 CHNA Survey, key findings were: 57% of adults have felt worried, tense or anxious at least one day during the last 30 days (22% more than 7 days); 31% of adults have felt their mental health has not been good for at least one day during the last 30 days (11% more than 7 days).

The frequency of visiting mental health providers was also assessed during the 2013 CHNA Survey. Thirteen percent of Olmsted County adults report seeing a mental health provider about their own personal health during the last year. Of those that did not see a mental health provider (87%), 5% believe they should have seen a health professional. [Reasoning as to why they did not seek out help was not assessed.]

Healthy People 2020 has a broad mental health and mental disorders goal of improving mental health through prevention and by ensuring access to appropriate, quality mental health services. A specific objective around mental health status improvement is to reduce the proportion of persons who experience major depressive episodes by 10% - from a baseline of 8.3% (2008) to 7.4% in adolescents.

Health Inequities:

Limited local data is available – this data does not allow for any demographic data breakdown, therefore differences between subpopulations is not available.
**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. The metric for this assessment estimates, through the Rochester Epidemiology Project, asthma disease prevalence as a percentage of total population.

**Data Sources:**
Centers for Disease Control and Prevention, National Center of Health Statistics; Healthy People 2020; National Institutes of Health; US Department of Health and Human Services, National Heart, Lung, and Blood Institute; Rochester Epidemiology Project (REP)

**Community Health Importance:**
Currently in the United States, more than 23 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 health care 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 health care expenditures for asthma alone are estimated at $20.7 billion.

**What does this Health Factor Impact or Influence?**
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 – environmental health, specifically air pollution, being one such trigger. 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.

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.

**Current Community Perception:**
Current community perception regarding asthma is unknown.

**Current Level of Community Capacity:**
Current organizations and initiatives working around asthma include: Mayo Clinic; Olmsted Medical Center; School Districts.

**Area of Greatest Opportunity:**
Opportunities include policy and system-level changes: development of enhanced surveillance systems in cooperation with 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.

*NOTE: Asthma is an important health indicator for Olmsted County; however, some sections are currently blank due to limited, local data sources.*
**Trend Data with Goal:**

At a national level, prevalence of asthma has increased since 1930. However, deaths from asthma have decreased since the mid-1990s.

Data gathered from the REP indicates that 4% of Olmsted County residents currently have asthma; this percentage would equate to approximately 5,900 individuals county-wide. Local data shows a slight increasing trend over the last several years; however, data should be interpreted with caution.

Healthy People 2020 has a broad respiratory diseases goal of promoting respiratory health through better prevention, detection, treatment, and education efforts. There are a variety of objectives related to asthma (i.e. reduce asthma deaths, hospitalizations, ED visits, etc.); however, no metric measures overall asthma prevalence.

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**Health Inequities:**

Asthma affects people of every race, sex, and age. However, significant disparities in asthma morbidity and mortality exist – in particular of low-income and minority populations. Populations with higher rates of asthma include: children; women (among adults) and boys (among children); African Americans; people living below the Federal poverty level; and employees with certain exposures in the workplace.

These differences are apparent in Olmsted County. Women in Olmsted County have higher rates of asthma as compared to men (4.6% vs. 3.5%, respectively). Additionally, the highest asthma prevalence is seen in the youngest aged cohort – children 18 years of age and younger – at 5.0%.
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. The metric for this assessment estimates, through the Rochester Epidemiology Project, COPD prevalence as a percentage of the total population.

Data Sources: 
Centers for Disease Control and Prevention (CDC); CDC, Morbidity and Mortality Weekly Review; CDC, National Center for Health Statistics; Healthy People 2020; Rochester Epidemiology Project (REP); US Department of Health and Human Services, National Institutes of Health, National Heart, Lung, and Blood Institute

Community Health Importance: 
COPD is the fourth leading cause of death in the United States. In 2006, approximately 120,000 individuals died from COPD – a number very close to that reported for lung cancer deaths in the same year. In nearly 8 out of 10 cases, COPD is caused by exposure to cigarette smoke. In addition, other environmental exposures (such as those in the workplace) may cause COPD.

What does this Health Factor Impact or Influence? 
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. Other irritants can cause COPD, including cigar smoke, secondhand smoke, pipe smoke, air pollution and workplace exposure to dust, smoke or fumes.

Current Community Perception: 
Current community perception regarding chronic pulmonary disease is unknown.

Current efforts in the community around COPD include: Freedom to Breathe Act/Smoke Free Workplaces; Smoke Free Ordinances; Smoke Free Multi-Unit Housing.

Area of Greatest Opportunity: 
Opportunities include policy and system-level changes: development of enhanced surveillance systems in cooperation with 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.

*NOTE: COPD is an important health indicator for Olmsted County; however, some sections are currently blank due to limited, local data sources.
Trend Data with Goal:
Data gathered from the REP indicates that 1.4% of Olmsted County residents currently are living with COPD. Local data shows a slight increasing trend over the last several years; however, data should be interpreted with caution.

Healthy People 2020 has a broad respiratory diseases goal of promoting respiratory health through better prevention, detection, treatment, and education efforts. There are a variety of objectives related to COPD (i.e. reduce COPD deaths, hospitalizations, ED visits, etc.); however, no metric measures overall COPD prevalence.

Health Inequities:
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. Nearly 7% of Olmsted County adults 65+ are living with COPD.
Health factors indicators in this assessment represent the potential for 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, and drinking alcohol 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 health care. Many components impact health care access, including: 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 has access barriers, limited health literate and knowledge, but ultimately can inform program interventions.

Social determinants of health are directly correlated with 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 community, families cannot thrive. Ensuring access to social and economic resources provides a foundation for a health community.

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

Adult Tobacco Use
Adolescent Alcohol Use
Healthy Eating
School Food Environment
Physical Activity
Definition:
For this assessment, 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. Tobacco use was assessed during the 2013 CHNA Survey.

Data Sources:
Centers for Disease Control and Prevention; Healthy People 2020; Minnesota Department of Health, Minnesota Adult Tobacco Survey; Olmsted County Community Health Needs Assessment (CHNA) 2013 Survey

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 1 of every 5 deaths – in the United States each year. In addition, tobacco use costs the US $193 billion annually in direct medical expenses and lost productivity.

What does this Health Factor Impact or Influence?
Compared with nonsmokers, tobacco use is estimated to increase the risk of coronary heart disease and stroke (2-4 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 been linked with Sudden Infant Death Syndrome (SIDS).

Current Community Perception:
According to the 2013 CHNA Survey, smoking was noted to be one of the most pressing community health issues impacting Olmsted County.

Tobacco use, secondhand exposure and the impacts of tobacco were discussed during the community listening sessions. Smoking cessation was mentioned as a top theme within preventive care and activities. Chronic disease overall, which tobacco impacts, was identified as a major community health concern.

Current Level of Community Capacity:
Current efforts in the community around tobacco use center on policy development, which includes: Freedom to Breathe Act/Smoke Free Workplaces; Smoke Free Ordinances; Smoke Free Multi-Unit Housing.

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.

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**Trend Data with Goal:**
Both national and Minnesota smoking prevalence rates have been declining steadily over the past several decades. According to the most recent survey data available (2010), smoking prevalence rates currently in the US are at 19.9% where Minnesota rates are at 16.1.

Information gathered from the 2013 CHNA Survey indicates that 9% of Olmsted County adults currently smoke; this percentage would equate to approximately 10,000 adults county-wide. *Interpret local data with caution due to having only one data point; local data trending is not available.*

Healthy People 2020 has a broad goal of reducing illness, disability and death related to tobacco use and secondhand smoke exposure. One specific objective is to reduce cigarette smoking by adults – from the baseline of 20.6% (2008) to 12.0%.

**Health Inequities:**
There are many demographic health inequities associated with smoking status: smoking rates tend to decline as age, education and income increase. These well known inequities are consistent with Olmsted County data – the highest smoking prevalence rates are seen among: individuals with household income below $35,000 (23.8%) and non-college graduates (16%).
Adolescent Alcohol Use

Definition:
Adolescent alcohol use, in this assessment, is defined as Olmsted County students (6th, 9th, and 12th graders) participating in the Minnesota Student Survey (MSS) who have reported any alcohol use in the past 30 days (MSS definition).

Data Sources:
Centers for Disease Control and Prevention (CDC); CDC, High School Youth Risk Behavioral Surveillance; Healthy People 2020; Minnesota Department of Health, Minnesota Student Survey; Substance Use in Minnesota (sumn.org)

Community Health Importance:
Adolescent alcohol use is a major community health problem. Alcohol is the most commonly used and abused drug among youth in the United States, and is responsible for more than 4,700 annual deaths among underage youth. There are many future health and life implications and consequences for adolescents who drink alcohol.

What does this Health Factor Impact or Influence?
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: school, 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.

Current Community Perception:
Olmsted County Public Health Services participated in Key Informant and One-on-One interviews (Summer 2012) to assess the community’s knowledge and readiness to change regarding adolescent and young adult alcohol use. Community members thought adolescent alcohol use was a major issue in Olmsted County; however, the severity of the problem varied greatly, mostly due to personal experience and awareness.

Current Level of Community Capacity:
The Alcohol Misuse Prevention Coalition for Olmsted County, initiated in 2012, is currently providing, enhancing, and impacting the education and advocacy on alcohol abuse and misuse prevention. Membership spans across many sectors of Olmsted County including: youth and young adults, parents, school, law enforcement, and local government. Somali Council, Zumbro Valley Mental Health Center.

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.

Click here to comment on this indicator
Trend Data with Goal:
Over the past decade, Olmsted County has seen a decrease in adolescent alcohol use, and this trend continues. This decrease is most notably seen in 12th graders, who also represent the cohort with the highest consumption use. During the most recent MSS (2010), it is noted that 35% of 12th graders in Olmsted County have consumed at least one alcoholic drink within the past 30 days.

Healthy People 2020 has a goal of reducing substance abuse to ultimately protect the health, safety, and quality of life for all, especially children. Specific to adolescent alcohol use, Healthy People 2020 objective is to reduce the proportion of adolescents reporting use of alcohol (or any illicit drugs) during the past 30 days by 10% – from a baseline of 18.4% (2008) to 16.6%.

Health Inequities:
According to National surveillance data, differences remain in consumption of alcohol between gender and race groups. Among 12th grade students, males consume alcohol more than females (51.2% vs. 45.4%, respectively). Regardless of age or grade level, more white (40.3%) and Hispanic (42.3%) students consume alcohol than any other race or ethnic group (black – 30.5%; Asian – 25.6%).

Adolescent Alcohol Use
**Definition:**
An individual meeting the national dietary guidelines for fruit and vegetables needs to consume at least 5 combined daily servings. For this assessment, fruit and vegetable consumption was assessed during the 2013 CHNA Survey. Individuals (age 18+) were given a brief description of what a serving consisted of, and then were asked separately: On average, how many servings of fruit (vegetables) do you consume daily?

**Data Sources:**
Centers for Disease Control and Prevention (CDC); CDC Behavioral Risk Factor Surveillance System (BRFSS); Healthy People 2020; Olmsted County Community Health Needs Assessment (CHNA) 2013 Survey; Rochester Behavioral Risk Factor Surveillance System, 2010

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

**Current Community Perception:**
There is general consensus that fruits and vegetables are an important component of a healthy diet, however not everyone incorporates the recommended amount into their diet. Potential barriers to not consuming the recommended amount include: fruits and vegetables go bad too quickly; do not satisfy hunger; not available in homes; high cost; concerns about preparation time; and not knowing how to add more servings of each to their diet.

According to the 2013 CHNA Survey, obesity was cited as the most pressing community health issue impacting Olmsted County; diet and healthy eating were also among the top issues mentioned. Additionally, individuals believe that diet, healthy eating, nutrition, and weight loss are all top types of public health information that would be useful for them or their family.

**Current Level of Community Capacity:**
There are many current community initiatives that promote eating more fruits and vegetables, including: Eat Smart, Be Smart (Rochester Community and Technical College); Healthy Concessions (Mayo Field); Farmers Market expansions and the acceptance of Electronic Benefits Transfer (EBT); Farm to School programs; and the regional Food Policy Council.

**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.

[Click here to comment on this indicator]
Trend Data with Goal:
According to the most recent survey data available (BRFSS, 2009), approximately 25% of Minnesota and US adults meet the fruit and vegetable dietary guidelines.

Information gathered from the 2013 CHNA Survey indicates that 50% of Olmsted County adults currently meet the recommended guidelines of eating 5 or more servings of fruits and vegetables. A survey completed with just Rochester residents in 2010 indicated that 17% of adults consume the recommended amount. [Interpret local data with caution due to differences in sampling and question design between survey years.]

Healthy People 2020 has a broad nutrition and weight goal of promoting health and reducing chronic disease risk through the consumption of healthful diets and achievement and maintenance of healthy body weights. The specific objective around food consumption is to increase the contribution of fruits and total vegetables to the diets of the population aged 2 years and older. The measurement for this objective is not given by daily servings, so no comparison is feasible to the presented data.

Health Inequities:
Demographic characteristics of those with a more healthful diet vary from study to study. However, it is typically shown that most Americans need to improve some aspect of their diet. According to local data, the biggest difference in fruit and vegetable consumption is seen across education level. Approximately 60% of college graduates report consuming 5 or more servings a day; where only 40% of non-college graduates report meeting the nutritional guideline.
School Food Environment*

**Definition:**
School food environments consist of many different factors all relating to food presence and availability on school campuses, including lunch [breakfast] program, vending machines, concessions, gardens, and advertising (i.e. posters). Specifically for this assessment, factors that are addressed are healthy snack carts and nutritional school gardens.

**Data Sources:**
Centers for Disease Control and Prevention (CDC); CDC, Children’s Food Environment State Indicator Report; Healthy People 2020; Olmsted County Public Health Services

**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 healthy eating behaviors among children by providing a vast array of healthy foods offered on the school campus.

**What does this Health Factor Impact or Influence?**
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 experience eating balanced meals during formative years which will help establish good eating habits. The school food environment may also contribute in positive or negative ways to the nutritional habits and caloric intake of students. 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.

**Current Community Perception:**
Current community perception regarding school food environment is unknown.

**Current Level of Community Capacity:**
School gardens and healthy snack carts are current efforts lead by Olmsted County Public Health Services through the Statewide Health Improvement Plan (SHIP); School Districts.

**Area of Greatest Opportunity:**
No specific opportunity regarding school food environment was identified during the CHNA process.

*NOTE: School food environment is an important health indicator for Olmsted County; however, some sections are currently blank due to limited, local data sources.
**Trend Data with Goal:**
Over the past few years, Olmsted County Public Schools have seen an increase in both school nutritional gardens and healthy snack carts. Currently (2013), approximately one out of every five schools (19%) has a nutritional garden; there are currently seven nutritional school gardens in Olmsted County. Among all public elementary schools, 25% currently have a healthy snack cart program (5 out of the 20 elementary schools).

Healthy People 2020 has a broad nutrition and weight goal of promoting health and reducing chronic disease risk through the consumption of healthful diets and achievement and maintenance of healthy body weights. A specific objective around healthier food access is to increase the proportion of schools that offer nutritious foods and beverages outside of school meals. Two associated metrics are: to increase the proportion of schools that do not sell or offer calorically sweetened beverages to students; and to increase the proportion of school districts that require schools to make fruits and vegetables available whenever other food is offered or sold.

![Olmsted County School Food Environment](chart)

**Health Inequities:**
*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 assessed through the 2013 CHNA Survey. Individuals were asked: During an average 7-day 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? National guidelines for adults are met (not including muscle strength training) when an individual has at least 150 minutes (ex: 5 days of 30 minutes) of moderate activity or at least 75 minutes (ex: 4 days of 20 min) of vigorous activity.

**Data Sources:**
Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System (BRFSS); Healthy People 2020; Olmsted County Community Health Needs Assessment (CHNA) 2013 Survey

**Community Health Importance:**
Regular physical activity can improve the health and quality of life of all ages, regardless of the presence of a chronic disease or disability.

**What does this Health Factor Impact or Influence?**
Among adults, physical activity can lower the risk of: early death, coronary heart disease, stroke, high blood pressure, type 2 diabetes, breast and colon cancer, falls, and depression.

**Current Community Perception:**
According to the 2013 CHNA Survey, obesity was cited as the most pressing community health issue impacting Olmsted County. Additionally, individuals believe that workout information, exercise, and weight loss are top types of public health information that would be useful for them or their family.

Physical activity was discussed during the community listening sessions. Physical activity was mentioned as a top theme within preventive care and activities.

**Current Level of Community Capacity:**
Current initiatives include: Statewide Health Improvement Program (SHIP); Worksite Wellness.

**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.

Click here to comment on this indicator
Trend Data with Goal:
The percentage of Minnesota and US adults engaging in moderate physical activity has generally increased over the past decade. According to the most recent survey data available (BRFSS, 2009), just over 50% of both Minnesota and US adults are meeting the moderate physical activity guidelines.

Information gathered from the 2013 CHNA Survey indicates that 48% of Olmsted County adults currently meet the recommended national guidelines for moderate physical activity. [Interpret local data with caution due to asking number of days/week physically active, not minutes/week.]

Healthy People 2020 has a broad physical activity goal of improving health, fitness, and quality of life through daily physical activity. One specific objective is to increase the proportion of adults who engage in aerobic physical activity of moderate intensity, vigorous intensity, or combination of both – from the baseline of 43.5% (2008) to 47.9%, a 10%. [Note: the graphic shows this HP 2020 objective; however, measurements are not identical across populations, therefore interpret with caution.]

Health Inequities:
Factors negatively associated with adult physical activity include: advancing age, low income, lack of time, low motivation, rural residency, perception of great effort needed for exercise, overweight or obesity, perception of poor health, and being disabled. These inequities are also seen with Olmsted data – for example, 37% of people self-reporting as overweight meet the guidelines as compared to 57% of self-reported ‘right’ weight.
Health Factors
Clinical Care
- Insurance Coverage
- Routine Dental Care
- Routine Medical Care
- Prenatal Care
- Breast Cancer Screening
- Diabetes Management
- Colorectal Cancer Screening
- Cholesterol Screening
Insurance Coverage

Definition:
Insurance coverage, for this assessment, refers to medical and dental care insurance which may include insurance from both private and public payers. This insurance may cover outpatient, inpatient care, preventive care, acute and chronic care, and prescription medicine. Many insurance programs have co-pays or deductibles that are the patient’s responsibility. This section deals with the presence or absence of some type of insurance, not the coverage of that insurance.

Data Sources:
Healthy People 2020; Olmsted County Community Health Needs Assessment (CHNA) 2013 Survey; United States Census Bureau, American Community Survey (ACS), 2008-2010

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 health care for reasons of symptoms and illnesses or for preventive care. While some people can afford to pay out of pocket for health care expenses, most cannot and therefore may delay or not seek medical care when needed.

What does this Health Factor Impact or Influence?
Health insurance coverage helps patients get into the health care 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 health care 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: 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.

Current Community Perception:
According to the 2013 CHNA Survey, the availability of health insurance and affordable health care was noted to be one of the most pressing community health issues impacting Olmsted County.

Access to care – including insurance and cost – was discussed during the community listening sessions. Access to care was a priority area that was present in each listening session. Residents were concerned about the cost of health care and insurance.

Current Level of Community Capacity:
Current efforts in the community regarding insurance levels include: Good Samaritan Clinics; Hawthorne Health Services; Migrant Health Services; Minnesota Care; MNSure (“Obamacare”); Olmsted County Community Action Program; Olmsted County Financial Services; Olmsted County Public Health Services; REACH Clinic; Vaccine for Children program.

Area of Greatest Opportunity:
Implementing the Affordable Health Care Act will provide insurance opportunities to every individual regardless of employment and income. Mental health care coverage, even among those who are insured, remains inadequate for those with chronic and complex mental health problems.

Click here to comment on this indicator
**Trend Data with Goal:**
From the most recent American Community Survey (2008-2010), 92% of Minnesota residents have health insurance coverage. At a national level, 85% of the population has health insurance.

Information gathered from the 2013 CHNA Survey indicates that 95% of Olmsted County adults currently have health insurance; 90% have insurance that covers prescription medications; and 72% have dental insurance.

Healthy People 2020 has a broad access to health services goal of improving access to comprehensive, quality health care services. One specific objective is to increase the proportion of persons with health insurance to total coverage – from the baseline of 83.2% (2008; medical) to 100%.

**Health Inequities:**
Individuals with lower household incomes, those with high health care expenditures, and those unable or unwilling to apply for public health care assistance appear to have lower rates of insurance. Individuals with chronic and complex mental illnesses are often either not insured or have insurance programs that provide inadequate coverage for the required level of mental health care.

At a national level, disparities exist across many sub-groups: more men (17%), middle-aged (21%), Hispanic (31%), and Native Americans (29%) individuals are uninsured.
Routine Dental Care

**Definition:**
Dental care is any oral health care received by a dentist, dental hygienist, or any other health care professional specializing in oral health. For this assessment, dental health is measured by the proportion of the population who has visited a dental provider in the last year (self-reported).

**Data Sources:**
Centers for Disease Control and Prevention (CDC); CDC, Behavioral Risk Factor Surveillance System; CDC, National Health and Nutrition Examination Survey; Healthy People 2020; Olmsted County Community Health Needs Assessment (CHNA) 2013 Survey

**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 Impact or Influence?**
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. A person’s ability to access oral health care is associated with factors such as education level, income, race, and ethnicity.

**Current Community Perception:**
2013 CHNA Survey respondents did not cite dental disease or problems with dental issues as a pressing health issue. However, during the community listening sessions, dental health was listed as a major community health concern. Dental health care was mentioned as a concern due to the lack of health care providers in the area that take public insurance.

**Current Level of Community Capacity:**
While the community has several private dentists and dental clinics, only a limited number of those providers accept patients with public insurance, including: Apple Tree Dental; Apollo Dental; Community Dental Care; Good Samaritan Dental Clinic; Tom Sitzer, DDS.

**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:**
The proportion of Minnesota adults accessing annual dental services over the last decade has remained stable – hovering around 75%.

According to the 2013 CHNA Survey, **77%** of Olmsted County adults routinely seek dental care; three-quarters of the adult population have seen a dentist in the last 12 months.

Healthy People 2020 has a broad oral health goal of preventing and controlling oral and craniofacial diseases, conditions, and injuries, and improve access to preventive services and dental care. A specific objective around access to preventive services is to increase the proportion of the population who has used the oral health care system in the past year by 10% - from a baseline of 44.5% (2007) to 49.0%.

*Interpret presented data with caution. Healthy People 2020 is basing the national objective on clinical data (Medical Expenditure Panel Survey, Agency for Healthcare Research and Quality) where all other data are self-reported.*

**Health Inequities:**
In general, people with lower levels of education and income, and people from minority population groups have higher rates of oral disease. People with disabilities and other health conditions, like diabetes, are more likely to have poor oral health.

Certain differences are present in local data – according to the 2013 CHNA Survey individuals who are younger (18-24 years old) and at a lower income (<$75,000 household income) received annual dental care less often than the overall population (72% and 67% vs. **77%**, respectively).
Routine Medical Care

Definition:
General preventive medical care should be received on an annual basis to maintain overall health. For this assessment, medical care is presented by the proportion of the population who has visited a primary care provider in the last year (self-reported).

Data Sources:
Healthy People 2020; Olmsted County Community Health Needs Assessment (CHNA) 2013 Survey

Community Health Importance:
People who have access to regular health care are more likely to receive the recommended preventive services. These individuals are also more likely to receive timely care for medical conditions before they become more serious and more costly to treat.

Having a primary care provider and a medical home is also associated with fewer preventable emergency department visits and fewer hospital admissions; ultimately patients that identify a permanent medical home will develop greater trust in and adherence to the recommended treatment options.

What does this Health Factor Impact or Influence?
Access to health care impacts: overall physical, social, and mental health status; prevention of disease and disability; detection and treatment of health conditions; and quality of life.

Current Community Perception:
According to the 2013 CHNA Survey, the availability of health insurance, affordable health care, and access to health care were noted as pressing community health issues impacting Olmsted County.

Access to care – including insurance and cost – was discussed during the community listening sessions. Access to care was a priority area that was present in each listening session. Residents were concerned about the cost of health care and insurance.

Current Level of Community Capacity:
Mayo Clinic, Olmsted Medical Center, and Rochester Family Medicine Clinic are certified as patient centered medical homes; Migrant Health.

Area of Greatest Opportunity:
The patient-centered medical home has emerged as a promising model for strengthening primary care, and several provisions in the health reform statute encourage its adoption by providers. A patient-centered medical home is a primary care site that provides patients with timely access to care, including availability of appointments after regular office hours (especially evenings and weekends), partners with patients to manage health conditions and prevent complications, coordinates all care, and engages in continuous quality improvement.

Click here to comment on this indicator
**Trend Data with Goal:**

According to the 2013 CHNA Survey, 66% of Olmsted County adults routinely seek medical care; two-thirds of the adult population has seen a primary care provider recently – in 2012 or 2013. Eight percent of respondents said they last had a routine checkup in 2008 or prior.

Healthy People 2020 has a broad access to health services goal of improving access to comprehensive, quality health care services. One specific objective is to increase the proportion of the population who has a primary care provider by 10% – from the baseline of 76.3% (2007) to 83.9%. *This objective is not comparable to the presented local data (routine medical care vs. having a Primary Care Provider).*

**Health Inequities:**

Disparities in access to health services affect individuals and society. Limited access to health care impacts people’s ability to reach their full potential, negatively affecting their quality of life. Barriers to services include: lack of availability; high cost; and lack of insurance coverage.

These barriers to access health services lead to: unmet health needs; delays in receiving appropriate care; inability to get preventive services; and hospitalizations that could have been prevented.
**Definition:**
Prenatal care begins when a health professional first examines or counsels pregnant women. For this assessment, prenatal care is measured by the proportion of live births where the mother entered care in the first trimester of pregnancy.

**Data Sources:**
Centers for Disease Control and Prevention; Healthy People 2020; Minnesota Department of Health, Center for Health Statistics; National Institute of Child Health and Human Development; US Department of Health and Human Services, Office on Women’s Health

**Community Health Importance:**
Having a healthy pregnancy is one of the best ways to promote a healthy birth. Getting early and regular prenatal care improves the chances of a healthy pregnancy. Babies of mothers who do not get any prenatal care are three times more likely to have a low birth weight and five times more likely to die than those born to mothers who do get care.

**What does this Health Factor Impact or Influence?**
With regular prenatal care women can reduce the risk of pregnancy complications and reduce the infant’s risk for complications.

Pregnant women not receiving sufficient or early prenatal care may result in adverse birth outcomes including low-birth weight, infant mortality, disability, and other negative birth outcomes.

**Current Community Perception:**
Preventive care and activities, communication, access to care, and cultural concerns were discussed during the community listening sessions. Prenatal care was mentioned as a top theme within preventive care and activities.

**Current Level of Community Capacity:**
Olmsted County has one of the highest rates of physicians per capita in the United States. Clinicians for both low risk and high risk pregnancy management are available locally. In addition to two Level II nurseries, a neonatal intensive care until is locally available.

Current community initiatives and organizations that work towards increasing entrance into prenatal care include: Birthright; March of Dimes; Mayo Clinic; Migrant Health; New Life Family Services; Olmsted Medical Center; Olmsted County Public Health Services; March of Dimes; Planned Parenthood; United Way.

**Area of Greatest Opportunity:**
Continue work around prenatal classes and home visits. Further research is needed at the local level to identify the causes and barriers to care that are apparent among racial groups.

[Click here to comment on this indicator]
**Trend Data with Goal:**

In the United States, the number of women receiving prenatal care in the first trimester has increased 20% from 2006 (68%) to 2010 (83%), whereas Olmsted County has shown a slight decrease from 94% in 2006 to 92% in 2010. Minnesota remains constant at 86%. Olmsted County continues to have a higher rate of women who receive prenatal care in the first trimester (92%) compared to both the US (83%) and Minnesota (86%).

Healthy People 2020 has a broad maternal, infant, and child health goal of improving the health and well-being of women, infants, children, and families. One specific objective is to increase the proportion of pregnant women who receive first trimester prenatal care by 10% – from the baseline of 70.8% (2007) to 77.9%.

**Health Inequities:**

In Olmsted County, women from minority groups are less likely to seek early prenatal care. The greatest disparity is present between Hispanic (82%) vs. non-Hispanic (94%) and white (95%) vs. black (88%) women.
Breast Cancer Screening*

**Definition:**
There are multiple guidelines available when recommending the timeframe for mammogram screening (i.e. every year, every two years). For the purpose of this assessment, breast cancer screening is defined as the proportion of women over 50 who have had a mammogram in the last two years (self-reported). *This definition aligns with the United States Preventive Services Task Force recommendation of biennial mammography for women aged 50-74 years.*

**Data Sources:**
American Cancer Society; Centers for Disease Control and Prevention (CDC); CDC, Behavioral Risk Factor Surveillance System; Dartmouth Atlas of Healthcare; Healthy People 2020; National Institutes of Health, National Cancer Institute; Olmsted County Community Health Needs Assessment (CHNA) 2013 Survey; United States Preventive Services Task Force

**Community Health Importance:**
Except for skin cancers, breast cancer is the most common cancer among American women. About one in eight US women (12%) will develop invasive breast cancer during their lifetime.

**What does this Health Factor Impact or Influence?**
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.

**Current Community Perception:**
According to the 2013 CHNA Survey, cancer and access to health care were noted as some of the most pressing community health issues impacting Olmsted County. Additionally, cancer information and prevention health information were types of public health information listed that the community thought would be most useful.

Access to care – including insurance and cost – was discussed during the community listening sessions. Access to care was a priority area that was present in each listening session. Residents were concerned about the cost of health care and insurance. Various types of cancer were also mentioned during the sessions: *‘...there is a fear of finding out about cancer because every time someone in the community finds out about it, they die. They would rather not know than fear impending death.’*

**Current Level of Community Capacity:**
There are a variety of organizations and initiatives that promote and provide breast cancer screening, including: Hawthorne’s Breast Clinic; Mayo Clinic, Olmsted Medical Center; Sage Program (Minnesota Department of Health).

**Area of Greatest Opportunity:**
No specific opportunity regarding breast cancer screening was identified during the CHNA process.

*NOTE: Breast Cancer Screening is an important health indicator for Olmsted County; however, some sections are currently blank due to limited, local data sources.*
**Trend Data with Goal:**

Approximately two-thirds (65%) of US female Medicare enrollees have received a mammogram in the past two years. The proportion is slightly higher for Minnesota women – at 73%.

According to the 2013 CHNA Survey, 86% of Olmsted County women (50 years of age and older) have had a mammogram in the last 2 years. Six percent of women reported they last had a mammogram in 2008 or prior.

Healthy People 2020 has a broad cancer goal of reducing the number of new cancer cases, as well as the illness, disability, and death caused by cancer. One specific objective is to increase the proportion of women (50-74) who receive a breast cancer screening by 10% – from the baseline of 73.7% (2008) to 81.1%. *Healthy People 2020 is basing the national objective on ‘most recent guidelines in 2008’.*

**Health Inequities:**

As elsewhere in the U.S., 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. African American and Hispanic women are also more likely to be diagnosed with late-stage disease.

Data at a local level are not able to be broken down to determine if any differences exist.
Definition:
There are many forms of diabetes mellitus (DM). The three most common types are: juvenile onset or Type I; older adolescent and adult onset or Type II; and gestational diabetes. Many diabetic individuals require disease management; one test that should be performed on at least an annual basis is the hemoglobin A1c test – a blood test which measures blood sugar levels. For the purpose of this assessment, diabetes mellitus screening is defined as the proportion of diabetic Medicare enrollees who have had a hemoglobin A1c test in the past year.

Data Sources:
Centers for Disease Control and Prevention (CDC); CDC, Behavioral Risk Factor Surveillance System; Dartmouth Atlas of Healthcare; Healthy People 2020; Olmsted County Community Health Needs Assessment (CHNA) 2013 Survey

Community Health Importance:
DM 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.

DM 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 health care utilization and costs for people with DM are much higher than those for people without DM since many of those with DM 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 Impact or Influence?
Diabetes management is an important part of overall disease care. Annual tests and screenings include: A1c tests, dental exams, eye exams and foot exams. 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. 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.

Current Community Perception:
According to the 2013 CHNA Survey, diabetes was cited as one of the most pressing community health issue impacting Olmsted County; diet and healthy eating were also among the top issues mentioned. Additionally, individuals believe that diabetes, diet, healthy eating, nutrition, weight loss, and preventive health information are all top types of public health information that would be useful for them or their family.

Diet, nutrition, physical activity and the impacts of obesity were discussed during the community listening sessions. Lifestyle modification and prevention care were two areas of discussion for the community residents. From diet and nutrition, each session group had in-depth conversations about the need for more preventive care and services to reduce preventable disease.

Current Level of Community Capacity:
Current community organizations and initiatives that promote diabetes education, prevention and treatment, include: Mayo Clinic; Migrant Health; Olmsted Medical Center; medical and public health diabetes education.

Area of Greatest Opportunity:
No specific opportunity regarding diabetes management was identified during the CHNA process.

*NOTE: Diabetes management is an important health indicator for Olmsted County; however, some sections are currently blank due to limited, local data sources.
**Trend Data with Goal:**

According to the latest data available (Dartmouth Atlas, 2010) nearly 85% of US diabetic Medicare patients received an annual hemoglobin A1c test. This percentage is slightly higher in Minnesota at 88%

In 2010, 95% of Olmsted County diabetic Medicare patients had received an annual hemoglobin A1c test.

The goal for this indicator was to be a community-wide (population not just Medicare enrollees) metric; however, specific local data is currently not available.

Healthy People 2020 has a broad diabetes goal of reducing disease and economic burden of DM and improve the quality of life for all persons who have, or are at risk for, DM. There are two objectives related to hA1c tests (i.e. specific A1c readings); however, no metric measures the proportion of annual tests.

**Health Inequities:**

Current data does not allow for any demographic data breakdown, therefore differences between subpopulations is not available.

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**Diabetes Management**
Colorectal Cancer Screening*

**Definition:**
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. For the purpose of this assessment, colorectal cancer screening is defined as the proportion of adults over 50 who have ever had a colonoscopy (self-reported).

**Data Sources:**
American Cancer Society; Centers for Disease Control and Prevention (CDC); CDC, Behavioral Risk Factor Surveillance System; Healthy People 2020; National Cancer Institute, National Institutes of Health; Olmsted County Community Health Needs Assessment (CHNA) 2013 Survey; United States Preventive Services Task Force

**Community Health Importance:**
Except for skin cancers, colorectal cancer is the third most common cancer diagnosed in both men and women in the United States. 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 Impact or Influence?**
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.

**Current Community Perception:**
According to the 2013 CHNA Survey, cancer and access to health care were noted as some of the most pressing community health issues impacting Olmsted County. Additionally, cancer information and prevention health information were types of public health information listed that the community thought would be most useful.

Access to care – including insurance and cost – was discussed during the community listening sessions. Access to care was a priority area that was present in each listening session. Residents were concerned about the cost of health care and insurance. Various types of cancer were also mentioned during the sessions: ‘...there is a fear of finding out about cancer because every time someone in the community finds out about it, they die. They would rather not know than fear impending death.’

**Current Level of Community Capacity:**
Organizations and initiatives that promote and provide colorectal cancer screenings, include: Mayo Clinic; Migrant Health; Olmsted Medical Center.

**Area of Greatest Opportunity:**
Extending the benefits of the SAGE program to colon cancer screening.

*NOTE: Colorectal Cancer Screening is an important health indicator for Olmsted County; however, some sections are currently blank due to limited, local data sources.*
Trend Data with Goal:
Just over half of US adults 50 years and older have had at least one colonoscopy (57%). Adults in Minnesota seek this preventive care more frequently – 66% of adults have had at least one colonoscopy in their lifetime.

According to the 2013 CHNA Survey, 85% of Olmsted County adults (50 years of age and older) have ever had a colonoscopy. Additionally, those adults 65 years of age and older are significantly more likely than those age 50-64 to have ever had a colonoscopy (94% vs. 79%).

Healthy People 2020 has a broad cancer goal of reducing the number of new cancer cases, as well as the illness, disability, and death caused by cancer. One specific objective is to increase the proportion of adults aged 50-75 years who receive a colorectal cancer screening – from the baseline of 52.1% (2008) to 70.5%. Healthy People 2020 is basing the national objective on ‘most recent guidelines in 2008’.

Health Inequities:
Limited local data is available – this data does not allow for any demographic data breakdown, therefore differences between subpopulations is not available.
Definition:
A complete blood cholesterol test – referred to as a lipid panel or lipid profile – includes the calculation of four types of fats in your blood: total cholesterol, high-density (HDL) cholesterol, low-density (LDL) cholesterol, and triglycerides. For the purpose of this assessment, cholesterol screening is defined as the proportion of adults (18+) who have ever had their blood cholesterol checked.

Data Sources:
Agency for Healthcare Research and Quality; United States Preventive Services Task Force; Centers for Disease Control and Prevention (CDC); CDC, Behavioral Risk Factor Surveillance System (BRFSS); CDC, National Center for Health Statistics; CDC, National Health and Nutrition Examination Survey (NHANES); CDC, National Vital Statistics System; Healthy People 2020; Olmsted County Community Health Needs Assessment (CHNA) 2013 Survey

Community Health Importance:
Heart disease is the leading cause of death in the United States; stroke is the third leading cause of death. Together, heart disease and stroke are among the most widespread and costly health problems facing the Nation today – accounting for more than $500 billion in health care expenditures and related expenses. Fortunately, they are also among the most preventable diseases.

What does this Health Factor Impact or Influence?
High cholesterol by itself usually has no signs or symptoms. A complete cholesterol test is done to determine whether your cholesterol is high and estimate your risk of developing heart disease. High cholesterol is one of the major controllable risk factors for coronary heart disease, heart attack, and stroke. Controlling risk factors for heart disease and stroke remains a challenge.

Current Community Perception:
According to the 2013 CHNA Survey, heart disease/attacks was cited as one of the most pressing community health issue impacting Olmsted County; diabetes, obesity, diet and healthy eating were also among the top issues mentioned. Additionally, individuals believe that heart disease and heart problems, diabetes, diet, healthy eating, nutrition, weight loss, and preventive health information are all top types of public health information that would be useful for them or their family.

Diet, nutrition, physical activity and the impacts of obesity were discussed during the community listening sessions. Lifestyle modification and prevention care were two areas of discussion for the community residents. From diet and nutrition, each session group had in-depth conversations about the need for more preventive care and services to reduce preventable disease including heart disease and diabetes.

Current Level of Community Capacity:
Current community organizations and initiatives provide cholesterol screening include: Mayo Clinic; Olmsted Medical Center.

Area of Greatest Opportunity:
The risk of Americans developing and dying from cardiovascular disease would be substantially reduced if major improvements were made in diet and physical activity, control of high blood pressure and cholesterol, and smoking cessation.
Trend Data with Goal:
The latest survey data (BRFSS, 2011) demonstrates that approximately 80% of US and Minnesota adults have had their blood cholesterol checked at least once.

According to the 2013 CHNA Survey, 87% of Olmsted County adults have had their blood cholesterol checked at least once in their lifetime.

Healthy People 2020 has a broad heart disease and stroke goal of improving cardiovascular health and quality of life through prevention, detection, and treatment of risk factors for heart attack and stroke; early identification and treatment of heart attacks and strokes; and prevention of repeat cardiovascular events. One specific objective is to increase the proportion of adults who have had their blood cholesterol checked within the preceding 5 years by 10% – from the baseline of 74.6% (2008) to 82.1%.

[Interpret presented data with caution – US, MN, and Olmsted County data are ever had blood cholesterol checked, HP 2020 objective is for cholesterol checked in last 5 years.]

Health Inequities:
Data from NHANES show that certain race and ethnicity disparities exist related to cholesterol screening. Blacks and Mexican-Americans are less likely than whites (30% and 57%, respectively) to have had their cholesterol checked during the previous five years. Additionally, both groups were less likely than whites to be aware of their hyperlipidemia.

Certain inequities are also present within local data. Younger individuals (18-24: 55.6%; 25-34: 31.7%), individuals with low household income (<$35,000; 19.8%), minority individuals (non-white: 22.6%; Hispanic: 23.5%), and current cigarette smokers (24.4%) all report a higher rate of never having their blood cholesterol checked than the general adult population (11.2%).
Health Factors
Social and Economic Factors

Education Level
Poverty
Financial Stress
Unemployment
Homelessness
Neighborhood Safety
Access Deprivation
Early Childhood Screening
**Definition:**
The level of education in a community is measured in a variety of different ways. Specifically for this assessment, measurements of education level are the percent of county residents 25 years and older that have completed high school or a higher level and four-year graduation rates.

**Data Sources:**
Centers for Disease Control and Prevention; Children’s Defense Fund; Minnesota Department of Health, Minnesota Statewide Health Assessment, 2012; Olmsted County Managing for Results Annual Report, 2011; United States Census Bureau; United Way of Olmsted County

**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, and more education. 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 Impact or Influence?**
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 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.

**Current Community Perception:**
Current community perception regarding education is unknown.

**Current Level of Community Capacity:**
Current efforts in the community around education includes: 0-6 School Preparedness (Byron Community Education, Child Care Resource and Referral, Civic League Day Nursery, Good News Children’s Center, Tri Valley Opportunity Council); Community Gang Initiative; Dolly Parton’s Imagination Library; Educational Therapy (The Reading Center); Girl Scouts Leadership Experience (Girl Scouts of Minnesota and Wisconsin River Valleys); Hawthorne Education Center; Justice and Opportunity for Youth (JOY); New Immigrant Youth (Somali Community Resettlement Services); Olmsted Outdoors (Friends of Quarry Hill Nature Center); Parents are Important in Rochester (PAIIR); Running Start for Schools; Sports Mentorship Academy (Children of Destiny); Recreational Therapy (Family and Children Center); Y Mentors, Youth Development & Recreational Therapy (Rochester Area Family Y); Youth After School Summer Program (Boys & Girls Club).

**Area of Greatest Opportunity:**
Early Childhood Education – an at risk child without high-quality early childhood intervention is: 25% more likely to drop out of school, 40% more likely to become a teen parent, 50% more likely to be placed in special education, 60% more likely never to attend college, and 70% more likely to be arrested for a violent crime.

*NOTE: Education level is an important health indicator for Olmsted County; however, some sections are currently blank due to limited, local data sources.*
**Trend Data with Goal:**

According to the most recent available data (2011), 93.5% of Olmsted County’s 25+ population have a high school diploma or a higher level degree; of these individuals, 40% have a bachelor’s degree or higher. Olmsted County’s education level remains higher than both Minnesota (92.0%) and the US (85.9%).

Olmsted County school districts have a combined four-year graduation rate of 79.5% (2009-2010 school year). The graduation rate in Olmsted County continues to improve; compared to the 2006-2007 (76.3%) school year, the overall four-year graduation rate has increased approximately 5%.

Healthy People 2020 has a broad adolescent health goal of improving the healthy development, health, safety, and well-being of adolescents and young adults by increasing educational attainment. One specific objective is to increase the proportion of students who graduate with a regular diploma 4 years after starting 9th grade (4-year high school graduation rates) by 10% – from the baseline of 74.9% (2007-2008) to 82.4%.

**Health Inequities:**

Graduation rates for minority groups in Olmsted County, while improving greatly, remain significantly below the non-Hispanic white population. The non-Hispanic white four-year graduation rate is nearly twice as high compared to the black graduation rate (84.6% vs. 46.5%, respectively).

**Four Year Graduation Rates**

<table>
<thead>
<tr>
<th>Race and Ethnicity</th>
<th>Olmsted County by Student Race and Ethnicity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2006-2007</td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td>61.3%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>37.7%</td>
</tr>
<tr>
<td>Black (African &amp; African American)</td>
<td>47.3%</td>
</tr>
<tr>
<td>Eligible for Free/Reduced Meals</td>
<td>53.4%</td>
</tr>
<tr>
<td>Limited English Proficiency</td>
<td>43.3%</td>
</tr>
<tr>
<td>White, Non-Hispanic</td>
<td>82.1%</td>
</tr>
<tr>
<td>All Groups</td>
<td>76.3%</td>
</tr>
</tbody>
</table>

Education Level
**Definition:**
To determine poverty levels, the United States Census Bureau uses a set of monetary income thresholds that vary by family size and composition. If a family's total income is less than the associated family's threshold, then that family and every individual in it is considered to be living in poverty.

**Data Sources:**
Children's Defense Fund; County Health Rankings; Culture Care Connection; Minnesota Statewide Health Assessment, 2012; Olmsted County Community Health Report Card, 2010; Rochester/Olmsted Planning Department; Stratis Health; United States Census Bureau, American Community Survey (ACS, 2007-2011)

**Community Health Importance:**
The poverty rate is one of several socioeconomic indicators used by policy makers to evaluate economic conditions. Federal and state governments use such estimates to allocate funds to local communities.

People living in poverty tend to be clustered in certain neighborhoods rather than being evenly distributed across geographic areas. Many argue that this concentration of poverty results in higher crime rates, underperforming public schools, poor housing and health conditions, as well as limited access to private services and job opportunities.

**What does this Health Factor Impact or Influence?**
Poverty is linked to health in many ways. People in poverty are more likely to become ill and to die at younger ages. Chronic stress associated with lower socioeconomic status can contribute to morbidity and mortality and is linked to a wide range of health problems, including arthritis, cancer, cardiovascular disease, hypertension and low birth weight. Poverty limits choices in education, employment, and living conditions. Poverty limits access to safe places to live, work, and play, and places to buy healthy food. Poverty can foster obesity by forcing people and families to rely on cheap sources of food, which tend to be plentiful but high in calories and low in nutritional value.

Poverty is the single greatest threat to the well-being of children, often resulting in a lack of basic health care, poor nutrition, inadequate housing, lack of transportation and compromised emotional and intellectual development. Children who grow up in poverty are very likely to remain in poverty as adults.

*NOTE: Poverty is an important health indicator for Olmsted County; however, some sections are currently blank due to limited, local data sources.*
**Trend Data with Goal:**
Household and per capita incomes in Olmsted County exceed both the state and national averages. According to the 2007-11 ACS estimates, Olmsted County had a median household income of $66,997, compared to $58,476 for Minnesota and $52,762 for the United States. Despite the relatively high median household income and apparent affluence within the County, poverty still exists. Olmsted County’s high median income disguises the fact that the lowest 20% of households had a median income of only $15,646.

The level of poverty in Minnesota and the United States has steadily increased since 2008. Poverty levels in Olmsted County remain considerably below national and state levels, and have hovered around 8% over the last five years.

Healthy People 2020 has a broad social determinants of health goal of creating social and physical environments that promote good health for all. One specific objective around economic stability is to track the proportion of persons living in poverty. There is no target associated with this measure because it is being tracked for informational purposes only.

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**Health Inequities:**
Patterns of poverty vary among townships and cities, as well as among age groups, household type and minority status. In 2011, 8.1% of all Olmsted County residents were living in poverty, as compared to 11.9% in Minnesota and 15.9% throughout the nation.

Certain types of households are more vulnerable to poverty, particularly minority households, and single parent female-headed households. The median income of black or African American households is $31,022; and for female-headed single parent households median income is $33,201. Poverty rates for these groups are correspondingly high: 39.7% for the black or African American population and 23.4% for female headed households. Finally, 9.8% of all children in Olmsted County are living in poverty; minority children living below poverty is estimated to be much higher, at 21%.

The majority of adults with families in poverty – including single parent households and married couples with or without children – are employed. In Olmsted County, 68% of families in poverty have at least one adult working full- or part-time.
Financial Stress

Definition:
Financial stress can be defined as a condition that occurs whenever household income is less than desired outgo. For this assessment, financial stress was evaluated by two different metrics: households paying over 30% of their income for housing; and individuals worried or stressed about having enough money to pay for monthly bills.

Data Sources:
Minnesota Department of Health, Minnesota Statewide Health Assessment, 2012; Olmsted County Community Health Needs Assessment (CHNA) 2013 Survey; Rochester/Olmsted Planning Department; United Way of Olmsted County

Community Health Importance:
Financial stress is one of the leading causes of stress in America. It is linked to health problems such as anxiety, depression, and unhealthy coping behaviors.

What does this Health Factor Impact or Influence?
Financial instability affects everyone in a family and can lead to poor school attendance, crime, poverty, and an inability to meet basic needs.

With less money in the budget, people tend to cut corners in areas of health care to pay for basic necessities (i.e. deciding to pay for groceries and not having enough money for prescription medicine). This can lead to more serious health issues.

Current Community Perception:
According to the 2013 CHNA Survey, 26% of Olmsted County adults said that there has been a time in the past 12 months when they were worried or stressed about having enough money to pay their bills. One third of these individuals were worried or stressed about bills every single month. The bills that caused the most concern were: utilities, rent/mortgage, credit cards, medical bills, groceries, and insurance (health and auto).

Current Level of Community Capacity:
Current efforts in the community around financial stress include: rental assistance; low income housing; and job skills training; TriValley Community Action Program (CAP); United Way of Olmsted County.

Area of Greatest Opportunity:
We can all help to alleviate our affordable housing shortage. At the state and federal levels, we can support further increases in the minimum wage, so that workers can better afford housing that is now on the market. – Phil Wheeler, Director of the Rochester/Olmsted Planning Department

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**Trend Data with Goal:**

According to Census data, the share of Olmsted County households paying too much for housing has jumped from 7,900 households in 2000 to 14,900 households in 2010. More than **one in five** owner households and more than **two in five** renter households pay over 30% of their income for housing. Over 2,600 renter households (one in five) pay **50%** or more of income for housing. Another 3,000 owner households (almost 10% of owner households) pay 50% of income or more for housing costs. – Phil Wheeler, Director of the Rochester/Olmsted Planning Department

Healthy People 2020 has a broad social determinants of health goal of creating social and physical environments that promote good health for all. Economic stability is one area within the social determinants topic; however, there are no specific objectives related to financial stress.

**Health Inequities:**

The median household income in Olmsted County is $66,997. **The problem is that our high median income sets the bar for our housing market, and the low-wage workers among us are left out. The burden that housing costs places on families increases the chance that they will need to rely on other assistance programs (help with food, medical care, and so on) to meet their basic needs. Housing needs compound the other issues that accompany poverty.** – Phil Wheeler
Unemployment*

**Definition:**
Unemployment is the state of being unemployed. Unemployment occurs when a person who is actively searching for employment is unable to find work. For this assessment unemployment rates are presented, which is the number of unemployed individuals divided by the number of people able to be in the workforce, expressed as a percentage.

**Data Sources:**
New Public Health, Robert Wood Foundation; Minnesota Budget Project; United States Department of Agriculture; United States Department of Labor, Bureau of Labor Statistics

**Community Health Importance:**
Unemployment is often used as a measure of the health of the economy. For most Americans, employment is the sole or primary source of income, which enables individuals to provide nutritious foods, quality childcare, educational opportunities and healthier homes and neighborhoods. A stable job with fair pay leads to better health.

**What does this Health Factor Impact or Influence?**
Unemployment is an indirect way to measure lack of access to insurance and health care services provided by employers. This indicator is also associated with decreased economic strength and thus poorer health outcomes.

Laid-off workers are 54% more likely to have fair or poor health and 83% more likely to develop a stress-related condition such as heart disease. Unemployment has also been linked to loss of health insurance, increased stress and blood pressure, unhealthy coping behaviors, and increased depression.

**Current Community Perception:**
Current community perception regarding unemployment is unknown.

**Current Level of Community Capacity:**
Current efforts in the community around unemployment include: CHOICES of SE MN; Minnesota Vocational Rehabilitation Services; United Way; Workforce Center; Y Resource Center - LINK.

**Area of Greatest Opportunity:**
No specific opportunity regarding unemployment was identified during the CHNA process.

*NOTE: Unemployment is an important health indicator for Olmsted County; however, some sections are currently blank due to limited, local data sources.
Trend Data with Goal:
Unemployment rates in Olmsted County have declined from a high of 6.3% in 2009 to the most recent level of 4.7% in 2012. The unemployment rates seen in Olmsted County mirror the trends of the Minnesota and the US; however, the County rates are consistently lower than both the state and nation. In March 2013, the Rochester Post-Bulletin reported that Olmsted County had the lowest unemployment rate in the region, and that all jobs lost in the recession have been recovered.

Healthy People 2020 has a broad social determinants of health goal of creating social and physical environments that promote good health for all. One specific objective around economic stability is to track the proportion of children (0-17) living with at least one parent employed year round, full time. There is no target associated with this measure because it is being tracked for informational purposes only.

Health Inequities:
Recent national unemployment rates continue to exhibit the disparity among blacks and whites. The seasonally adjusted unemployment rate (May 2013) for whites was at 6.7%; black individuals have a rate twice as high – 13.5%.
Homelessness

**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.

**Data Sources:**
Center City Housing Corporation; Heading Home Minnesota; Heading Home Olmsted County; National Alliance to End Homelessness; National Center on Family Homelessness; Olmsted County Community Health Needs Assessment (CHNA) 2013 Survey; United Way of Olmsted County; US Department of Housing and Urban Development

**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.

For many city officials, community leaders, and even direct service providers, it often seems that placing homeless people in shelters is the most inexpensive way to meet the basic needs of people experiencing homelessness; some may even believe that shelters are ideal solutions. However, 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 Impact or Influence?**
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 worry about becoming homeless increases stress which negatively impacts coping, health, learning and daily functioning in general.

**Current Community Perception:**
According to the 2013 CHNA Survey, 2% of Olmsted County adults have stayed in a shelter, somewhere not intended as a place to live, or at someone else’s home because they had no other place to stay. Generalizing to the County population – two percent of the adult population would be approximately 2,200 residents; over 2,000 adults have potentially been without housing in the past year.

**Current Level of Community Capacity:**
Olmsted County has many community resources available for the homeless, including emergency shelters and housing, education, employment, food, health, financial, and legal services; Dorothy Day House; Interfaith Hospitality Network, Living Independently with Knowledge (LINK); Salvation Army, Students in Transition (SIT), Rochester School District; United Way of Olmsted County; Women’s Shelter.

**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 to maintain stability is critical. 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 health care, services for children (e.g. 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.

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**Trend Data with Goal:**

Exactly how many people are homeless or at risk for homelessness is difficult to say, but the data and opinions shared for the *Families and Youth without Stable Housing in Rochester: A Needs Assessment* by housing and service providers suggests that an estimated **200 to 300 families** are homeless or at imminent risk of homelessness each year in Rochester and Olmsted County.

In 2011, there were **170 families** with **307 children** who were sheltered in Rochester due to domestic violence, homelessness, or both.

The number of homeless families staying at the Dorothy Day Shelter has increased over the past three years, from 15 families with 29 children in 2009 to 25 families with 61 children in 2011.

One specific Healthy People 2020 objective regarding homelessness is related to mental health services. The objective is to increase the proportion of homeless adults with mental health problems who receive mental health services by 10% – from the baseline of 37.0% (2006) to 41.0%.

**Health Inequities:**

Homelessness falls disproportionately on people of color. While American Indian adults are only 1% of the total adult population in Minnesota, they are 11% of the adult population that is homeless. Approximately 5% of all adults in Minnesota are black, while 41% of all homeless adults are black.

There are very young children in Rochester who are experiencing homelessness with their parents. Of the 55 children sheltered at the Interfaith Hospitality Network in 2011, there were 24 children (44%) who were under 5 years of age.

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**Olmsted County Emergency Shelter Usage; 2011**

- **Total Served:** 170 families, 307 children

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**Homelessness**
Neighborhood Safety*

Definition:
For this assessment, safety was assessed a variety of ways, including: personal and neighborhood safety related to crimes against persons or property, and self perception of neighborhood safety.

Data Sources:
Commission to Build a Healthier America, Robert Wood Johnson Foundation; Healthy People 2020; Kids Count; Minnesota Statewide Health Assessment, 2012; Minnesota Student Survey; Olmsted County Community Health Needs Assessment (CHNA) 2013 Survey; Olmsted County Law Enforcement Center; Olmsted County Managing for Results Report, 2011; Rochester Police Department

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. Gang violence has increased over the past few years and the existence of gangs lowers the quality of life for residents and visitors.

What does this Health Factor Impact or Influence?
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. Neighborhood safety not only affects potential immediate threats to life and physical wellness, but also impacts long-term quality of life and has a significant influence on population health outcomes. 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.

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 (e.g. cleaner and safe public spaces, healthy behaviors and good schools), exchange information (e.g., regarding childcare, jobs and other resources that affect health), and to maintain informal social controls (e.g., 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.

Current Community Perception:
Self perception of neighborhood safety was assessed during the 2013 CHNA Survey and the triennial Minnesota Student Survey. Both of these surveys demonstrate that individuals within Olmsted County do not feel safe in their neighborhood. Five percent of Olmsted County adults have had a time in the last year that they were afraid to leave their home because of violence in the area.

Current Level of Community Capacity:
There are a variety of programs housed within the Olmsted County Sheriff’s Office and the Rochester Police Department: 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; Operation Identification; Probation Department; Project Safe City; Triad; SE Minnesota Narcotics & Gang Task Force.

Area of Greatest Opportunity:
No specific opportunity regarding neighborhood safety was identified during the CHNA process.

*NOTE: Neighborhood safety is an important health indicator for Olmsted County; however, some sections are currently blank due to limited, local data sources.
**Trend Data with Goal:**

Olmsted County crime rates have continually decreased over the past several years. Crimes are categorized by law enforcement as: Part I crimes – crimes against people: homicide, rape, robbery, aggravated assault, burglary, larceny, auto theft and arson; and Part II crimes – property crimes: assault, forgery, fraud, stolen property, vandalism, weapons, prostitution, narcotics, gambling, family, DUI liquor laws, and disorderly. Since 2006, crimes against persons have continued to decrease with 350 person crimes reported in 2010. Property crimes have remained stable over the last several years – hovering around 800 crimes annually.

Healthy People 2020 has a broad injury and violence goal of preventing unintentional injuries and violence, and reducing their consequences. There are a variety of objectives around violence prevention (i.e. reduce homicides); however, no comparable metric for this assessment.

**Health Inequities:**

People living in poverty tend to be clustered in certain neighborhoods rather than being evenly distributed across geographic areas. Many argue that this concentration of poverty results in higher crime rates. This was demonstrated through the 2013 CHNA Survey. As household income increased, so did perception of neighborhood safety; nearly 15% of adults with household income less than $35,000 have been afraid versus 1% of adults with household income greater than $75,000.
Access Deprivation*

**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. For this assessment, focus is placed specifically on transportation.

**Data Sources:**
Healthy People 2020; Minnesota Statewide Health Assessment; Olmsted County Community Health Needs Assessment (CHNA) 2013 Survey; Rochester/Olmsted Planning Department; United States Census Bureau

**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 Impact or Influence?**
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.

**Current Community Perception:**
Current community perception regarding access deprivation is unknown.

**Current Level of Community Capacity:**
Current programs or initiatives within Olmsted County: Complete Streets Policies (Rochester, Byron, Stewartville, Eyota); Olmsted County Bicycle Master Plan; GreenCorps Worker, Rochester Olmsted Planning Department; Rochester Public Transportation; Safe Routes to School Programs; Statewide Health Improvement Plan (SHIP): Trail Way.

**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.

*NOTE: Access deprivation is an important health indicator for Olmsted County; however, some sections are currently blank due to limited, local data sources.*
Trend Data with Goal:
From the 2010 Census, it is reported that 5.6% of Olmsted County households do not have access to a car. It is unclear as to whether or not these households/individuals are deprived of access – they may or may not need individual vehicle transportation.

Alternative forms of transportation were assessed during the 2013 CHNA Survey. Nearly 50% of adults responded that they had biked or walked to get to a destination (work, shopping, etc.) in the last year. The proportion of people biking or walking to destinations decreases with age – two-thirds (66.7%) of 18-24 year olds reported biking/walking where only one-third (32.2%) of the 65+ cohort reported biking or walking.

Healthy People 2020 has a broad social determinants of health goal of creating social and physical environments that promote good health for all. Neighborhood and built environment is one area within the social determinants topic; however, there are no specific objectives with metrics related to this area.

Health Inequities:
Lack of access to reliable transportation disproportionately affects vulnerable populations such as the poor, the elderly, people who have disabilities and children by limiting access to jobs, health care, social interaction, and healthy foods.
Early Childhood Screening*

**Definition:**
For this assessment, data is presented on the proportion of children completing the early childhood screening by age, and select demographic characteristics for the Rochester Public School District.

**Data Sources:**
Centers for Disease Control and Prevention; Rochester Public Schools (RPS); RPS, Early Childhood Family Services Report

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

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.

**What does this Health Factor Impact or Influence?**
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.

**Current Community Perception:**
Current community perception regarding early childhood screening is unknown.

**Current Level of Community Capacity:**
Current community organizations and initiatives that promote and provide early childhood screenings include: Child Care Resource and Referral, Head Start; Help Me Grow, Early Childhood Special Education (Chatfield, Dover-Eyota and Rochester School Districts; Zumbro Education District); Follow Along Program, Olmsted County Public Health Services; Minnesota Department of Education; Olmsted County Social Services; Rochester Public Schools, Community Education.

**Area of Greatest Opportunity:**
No specific opportunity regarding early childhood screening was identified during the CHNA process.

*NOTE: Early childhood screening is an important health indicator for Olmsted County; however, some sections are currently blank due to limited, local data sources.*
Trend Data with Goal:
The best time to have children screened is when they are three years old. Information provided by Rochester Public Schools indicates that only 40% of childhood screenings occur when children are three years. Nearly 20% of all childhood screenings are in five or six year olds – at least two years after the recommended age.

Healthy People 2020 has a broad social determinants of health goal of creating social and physical environments that promote good health for all. There is an area devoted to education; however the metric is not comparable to presented data. [Presented data are for only Rochester Public Schools.]

Health Inequities:
In the Rochester Public School District there seems to be a trend for children of races other than white and from families that speak languages other than English to screen their kids later at later ages (4-6 years of age).
Health Factors
Physical Environment
Healthy Food Access
Housing Conditions
Air Quality
Water Quality
Healthy Food Access

**Definition:**
Healthy food access, for this assessment, is defined as the availability of those locations or outlets that sell a variety of foods including fruits and vegetables.

**Data Sources:**
Centers for Disease Control and Prevention; Healthy People 2020; Statewide Health Improvement Plan (SHIP) Community Survey, 2013; United States Department of Agriculture - Food Environment Data

**Community Health Importance:**
Food choices influence everyone’s health and overall well-being. Current dietary concerns include: the overconsumption of calories, added sugars, and saturated fats; under consumption of whole grains, fruits, and vegetables; and health conditions such as obesity. Food and dietary choices are influenced not only by prices and income, but also by family structure, time constraints, psychological factors, nutritional information, Federal food and nutrition assistance programs, and access to food outlets.

**Current Community Perception:**
According to the 2013 SHIP Community Survey, everyone surveyed believes there should be at least some food items available at convenience stores [concession stands and vending machines] that are healthy food items. To increase the likelihood of purchasing a healthy option, 43% of respondents would like to see a variety of healthy items available and 31% would like the price to be lower than other non-healthy items.

According to the 2013 CHNA Survey, obesity is the most pressing community health issue impacting Olmsted County; diet and healthy eating were also among the top issues mentioned. Additionally, individuals believe that diet, healthy eating, nutrition, and weight loss are top types of public health information that would be useful for them or their family.

**Current Level of Community Capacity:**
A variety of organizations and initiatives are currently in the community to continue to make healthy food easily accessible, including: Breastfeeding Coalition; Olmsted County Public Health Services SHIP; Rochester Area Foundation’s CROPS; The Regional Food Policy Council – ‘Healthy Food Alliance of SE Minnesota’.

**Area of Greatest Opportunity:**
The need continues to create and maintain healthier food options for individuals outside of the home, including healthy options at vending machines, concessions, corner stores, community gardens, and farmers markets.

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Healthy Food Access 91

Trend Data with Goal:
Access to healthy food across Olmsted County has increased over the last several years. For instance, the Downtown Rochester Farmers’ Market, for many years, was the only Market that the community had access to. However, since 2011, the community now has access to five Markets throughout the County; which are located throughout the County and are offered at a variety of times and days.

Healthy People 2020 has a broad nutrition and weight goal of promoting health and reducing chronic disease risk through the consumption of healthful diets and achievement and maintenance of healthy body weights. A specific objective around healthy food access is to increase the proportion of Americans who have access to a food retail outlet that sells a variety of foods that are encouraged by the Dietary Guidelines for Americans. The associated measurement for this objective is still under development.

According to the USDA, approximately 5% of the Olmsted County population is considered to be at a low income and also lives greater than one mile from the closest grocery store. This increases the challenges low income populations have in accessing healthy foods. USDA nutrition programs like Women, Infants, and Children Nutrition Program (WIC) or Supplemental Nutrition Assistance Program (SNAP) can help, but not every food store accepts these governmental benefits.

Health Inequities:

![Directional Change Healthy Food Access Olmsted County](image)

Healthy Food Access
Definition:
Housing conditions and quality are measured and defined on a very broad scale. For this assessment, housing conditions and quality include the current conditions and quality of existing housing within Olmsted County and the associated affects on human health. Specifically assessed are housing complaints received via Public Health’s Environmental Complaint Database.

Data Sources:
Environmental Key Informant Survey of Olmsted County Environmental Staff, 2012; Olmsted County Community Health Needs Assessment (CHNA) 2013 Survey; OCPHS Environmental Health Complaint Database; Rochester Building Safety Housing Complaints Database

Community Health Importance:
As part of the built environment, housing is a key factor for health, especially since people spend most of their time inside their homes. Older and/or poorly maintained housing in particular can present multiple threats to health: lead-based paint, mold/moisture problems, asbestos, and fire hazards. Low-income families can often be found in older homes, as older homes are more affordable. Home ownership gives the occupants more control over their living environment and homeowners feel more empowered to address environmental concerns in their homes.

What does this Health Factor Impact or Influence?
Adults and especially children have better health outcomes living in high quality housing.

Current Community Perception:
During the 2012 Environmental Key Informant Survey, Olmsted County environmental staff were asked their perception of local housing conditions. Fifteen percent believe housing conditions to be a serious issue, 77% believe housing conditions to be a minor issue, and 8% believe it is not an issue at all.

Current Level of Community Capacity:
The City of Rochester has a housing ordinance and complaint initiated inspection program. Other resources for housing include: Olmsted County Housing and Redevelopment Authority.

Area of Greatest Opportunity:
Education is the greatest area to influence this indicator. A switch from a focus on housing complaint response to one more on educational outreach to landlords or homeowners is needed. Additionally, training is needed for county environmental agencies to provide a more integrated response to housing problem complaints or (concerned) inquiries.

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Trend Data with Goal:
Information gathered from the 2013 CHNA Survey indicates that 3% of Olmsted County residents currently believe the physical condition of their home to be of substandard (fair or poor) conditions.

Since 2010, Public Health has seen an increasing trend in the number of complaints due to both housing conditions (mold, garbage, structural) and pests or rodents. A combined 43 housing complaints were received in 2012 – the most in recent years.

Healthy People 2020 has a broad environmental health goal of promoting health for all through a healthy environment. There are a variety of objectives specifically focused on healthy homes and healthy communities; one specific objective is to reduce the proportion of occupied housing units that have moderate or severe physical problems – from the baseline of 5.2% (2007) to 4.2%.

Health Inequities:
Populations most at risk for poor housing conditions are usually renting and/or a minority population.
Definition:
Air quality, be it indoor or outdoor, has a variety of different data metrics. For this assessment, outdoor air quality, measured by 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 Air Quality Index (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.

Data Sources:
Healthy People 2020; Minnesota Pollution Control Agency

Community Health Importance:
Air pollutants can affect health, the environment, and individuals’ quality of life.

What does this Health Factor Impact or Influence?
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.

Current Community Perception:
During the 2012 Environmental Key Informant Survey, Olmsted County environmental staff were asked their perception of outdoor air quality. Twenty-six percent believe outdoor air quality to be a serious issue, 54% believe outdoor air quality to be a minor issue, and 20% believe it is not an issue at all.

Current Level of Community Capacity:
Local monitoring of air quality occurs through the Minnesota Pollution Control Agency, not at a local level.

Area of Greatest Opportunity:
While Minnesota meets current federal air quality standards, tougher regulations are expected in the next few years. And 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 the state uses today.

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**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.

Since 2002, Rochester AQI has exceeded this measurement anywhere from **2-10 days** per year (averaging 5 days annually).

Healthy People 2020 has a broad environmental health goal of promoting health for all through a healthy environment. There are a variety of objectives specifically focused on outdoor air quality; one specific objective is to reduce the number of days the AQI exceeds 100 by 10%.

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<table>
<thead>
<tr>
<th>Categories</th>
<th>Ozone 8-hour</th>
<th>Carbon Monoxide 8-hour</th>
<th>Sulfur Dioxide 24-hour</th>
<th>Particulate Matter PM-2.5 24-hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good (0-50)</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Moderate (51-100)</td>
<td>Unusually sensitive individuals may experience respiratory symptoms.</td>
<td>None</td>
<td>None</td>
<td>Respiratory symptoms possible in unusually sensitive individuals, possible aggravation of heart or lung disease in people with cardiopulmonary disease and older adults.</td>
</tr>
<tr>
<td>Unhealthy for Sensitive Groups (101-150)</td>
<td>Increasing likelihood of respiratory symptoms and breathing discomfort in active children and adults and people with respiratory disease, such as asthma.</td>
<td>Increasing likelihood of reduced exercise tolerance due to increased cardiovascular symptoms, such as chest pain, in people with cardiovascular disease.</td>
<td>Increasing likelihood of respiratory symptoms, such as chest tightness and breathing discomfort, in people with asthma.</td>
<td>Increasing likelihood of respiratory symptoms in sensitive individuals, aggravation of heart or lung disease and premature mortality in persons with cardiopulmonary disease and the elderly.</td>
</tr>
<tr>
<td>Rochester: <strong>2-10 days per year</strong></td>
<td>Greater likelihood of respiratory symptoms and breathing difficulty in active children and adults and people with respiratory disease, such as asthma; possible respiratory effects in general population.</td>
<td>Reduced exercise tolerance due to increased cardiovascular symptoms, such as chest pain, in people with cardiovascular disease.</td>
<td>Increased respiratory symptoms, such as chest tightness and wheezing, in people with asthma; possible aggravation of heart or lung disease.</td>
<td>Increased aggravation of heart or lung disease and premature mortality in persons with cardiopulmonary disease and the elderly; increased respiratory effects in general population.</td>
</tr>
</tbody>
</table>

**Health Inequities:**
Because of the Mayo Clinic in Rochester, Olmsted County may very well have a larger percentage than the rest of the state of ‘sensitive groups’ and this needs to be taken into consideration when evaluating the impact of this indicator. The Rochester medical community has over 1.5 million visitors per year.
**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.

**Data Sources:**
Healthy People 2020; Olmsted County Community Opinion Survey, 2007; Olmsted County Environmental Resources Annual Report; Key Informant Indicators Survey of Olmsted County Environmental Staff, 2012

**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 5,750 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 1 in 4 chance that a private well in Olmsted County will have bacteria, elevated nitrogen, or both risks.

**What does this Health Factor Impact or Influence?**
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.

**Current Community Perception:**
In a recent 2012 “key informant” survey of environmental professionals in Olmsted County, drinking water ranked lowest in terms of the “issue size” when compared to surface and storm water. The same survey also showed respondents felt drinking water is most likely to “stay[ing] the same” in terms of the issue’s trend.

Current perception of community residents’ perception is unknown. However a 2007 Community Opinion Survey found that unsafe drinking water was a low concern among community health issues in the survey. 31% of all respondents found unsafe drinking water to be no problem for our community.

**Current Level of Community Capacity:**
Olmsted County has a water testing lab managed by the Environmental Resources Department. A business plan is being developed which includes exploring a water testing procedure that may reduce the cost to test a private well for coliform and nitrate-nitrite. The current cost for this test is $54.00.

**Area of Greatest Opportunity:**
According to Minnesota Department of Health recommendations, wells constructed since the well code was adopted in 1957 should be sampled at least once every three years. There are approximately 3,850 of these wells in Olmsted County. Older wells should be sampled annually. Currently, there are about 1,900 older wells still in use in Olmsted County.

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**Trend Data with Goal:**
In 2012, 100% of Olmsted County public water systems tested met SDWA Standards.

Of the 5,750 private wells in Olmsted County, 9% were tested in 2012 at the County’s water lab. Of those wells tested, 76% met SDWA standards. Of the wells testing positive for coliform bacteria, 75% were remediated through disinfection.

Unfortunately, of the 5,750 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.

Healthy People 2020 has a broad environmental health goal of promoting health for all through a healthy environment. There are a variety of objectives specifically focused on outdoor water quality; one specific objective is to increase the proportion of persons served by community water systems who receive a supply of drinking water that meets the regulations of the Safe Drinking Water Act to 91.

![Olmsted County Drinking Water, 2012](chart.png)

**Health Inequities:**
Residents using private wells in Olmsted County constructed prior to the 1957 (adoption of Olmsted County Water Well Code) are at increased risk 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 1,900 of these older wells in use in Olmsted County.