

Chronic / Non-Infectious Disease

Problem: Carver County residents are experiencing premature death and disability from chronic/noninfectious diseases despite controllable risk factors.

Goal: Promote early detection and improved management of noninfectious disease and chronic conditions.

Chronic diseases such as heart disease, stroke, cancer, and diabetes are among the most prevalent, costly, and preventable of all health problems. The course of these illnesses and potential disabilities from such chronic diseases often results in long-term illness, disability and decreased quality of life for millions of Americans. Chronic, disabling conditions cause major limitations in activity for more than one of every 10 people or 25 million Americans.¹

These diseases are influenced by controllable risk factors at the individual, community and state level. Individuals can learn about and engage in healthy behaviors and lifestyles that decrease their personal risk for many chronic and noninfectious diseases and help control those diseases. Communities can develop and maintain assets that promote healthy behaviors and lifestyles. States can legislate against environmental factors

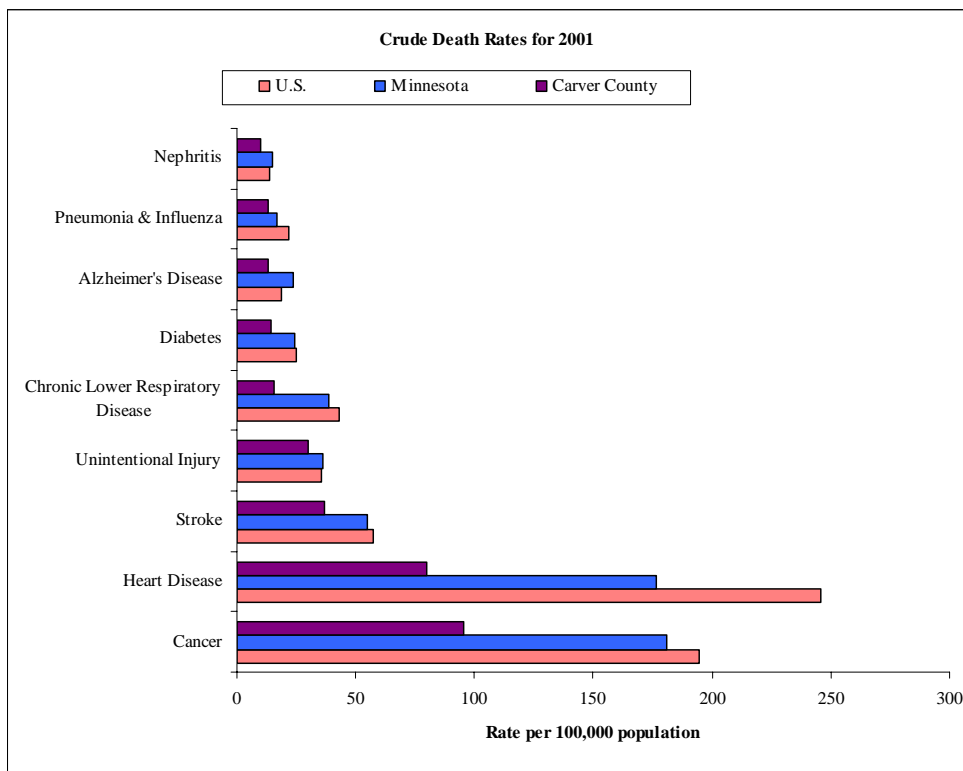
that contribute to the incidences of chronic and noninfectious diseases.

The Carver County Health Partnership Adult and Worksite Health Promotion Action Team has begun organizing workplace efforts, such as their 2001 walking program through Health Partners. The team is working to build relationships with local and regional businesses to foster improved productivity, profitability and employee health.

Leading Causes of Death

According to the Minnesota Department of Health (MDH), cancer was the leading cause of death for Carver County residents in 2001 followed by heart disease, stroke and unintentional injury.²

Figure 4.1 compares the crude death rates for the most common leading causes of death in 2001 for Carver County, the state, and the nation.³ As illustrated below, Carver County mortality trends have generally followed the state and national trends, with the exception of deaths due to cancer and heart disease at the national level.



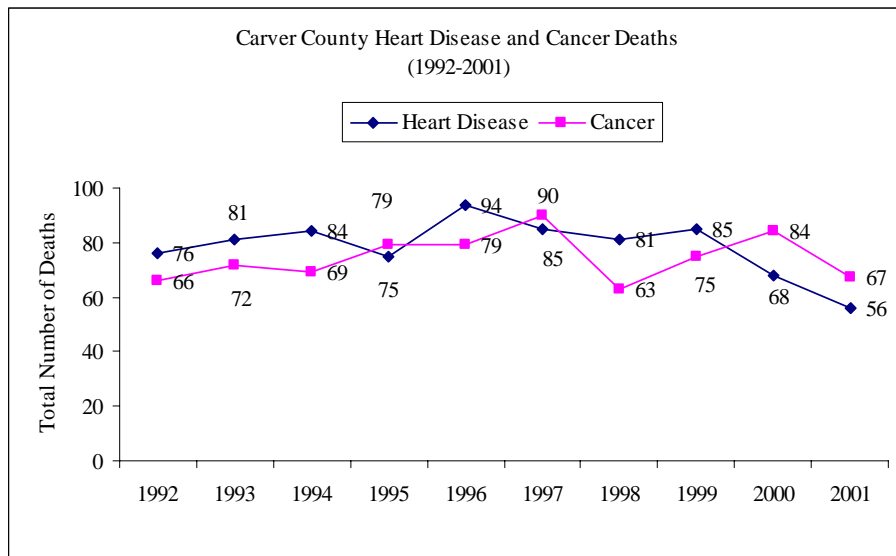
Source: Center for Disease Control and Prevention & Minnesota Department of Health, Center for Health Statistics.

Nationally, heart disease and cancer continued to be the leading and second leading causes of death in 2000 and 2001, together accounting for over half of all deaths. The opposite exists at the state and local level since cancer and heart disease ranked first and second as the leading causes of death for both Minnesota and Carver County in 2000 and 2001.⁴ More Minnesotans died

from cancer than heart disease in 2000 and 2001, making cancer the leading cause of death in the state and made Minnesota the first state in the nation to have the mortality rate higher for cancer than heart disease. Heart disease mortality is about 30 percent lower in Minnesota than the nation; while cancer mortality is only slightly lower.⁴

Figure 4.2 compares the numbers of deaths due to heart disease and cancer within Carver County.

Figure 4.2



Source: Minnesota Department of Health, Center for Health Statistics.

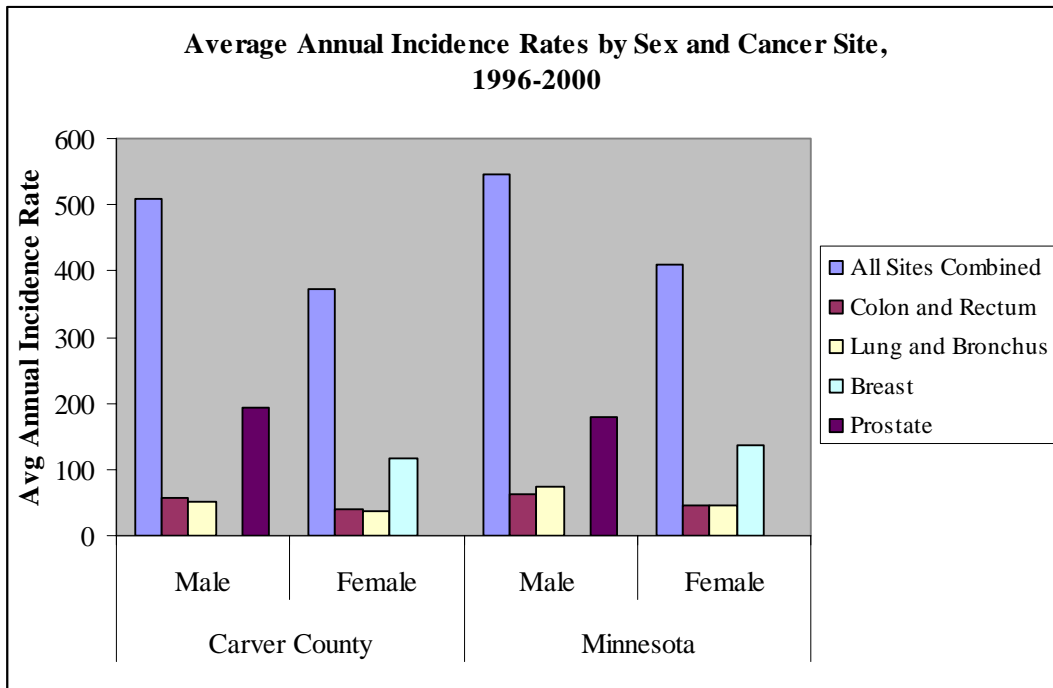
Cancer

Over the past decade, an average of 74 people have died each year due to some type of cancer. In 2001, cancer claimed the lives of 67 Carver County residents, or approximately 24 percent of all deaths in Carver County.² From 1995-1999, the two top-diagnosed cancers in Carver County for males were prostate cancer and cancer of the colon and rectum. They are followed by cancer of the lung and bronchus and non-Hodgkin’s lymphoma. Breast cancer was the most common form of cancer diagnosed in Carver County female residents.

Cancer of the colon and rectum, cancer of the lung and bronchus, and cancer of the corpus uteri are the next three most commonly diagnosed cancers among Carver County female residents.⁵

The picture is similar for the years 1996-2000. Figure 4.3 compares the incidence rates of various types of cancer for Carver County males and females with Minnesota incidence rates for 1996 through 2000.

Figure 4.3: Average Annual Incidence Rates by Sex and Cancer Site, 1996-2000



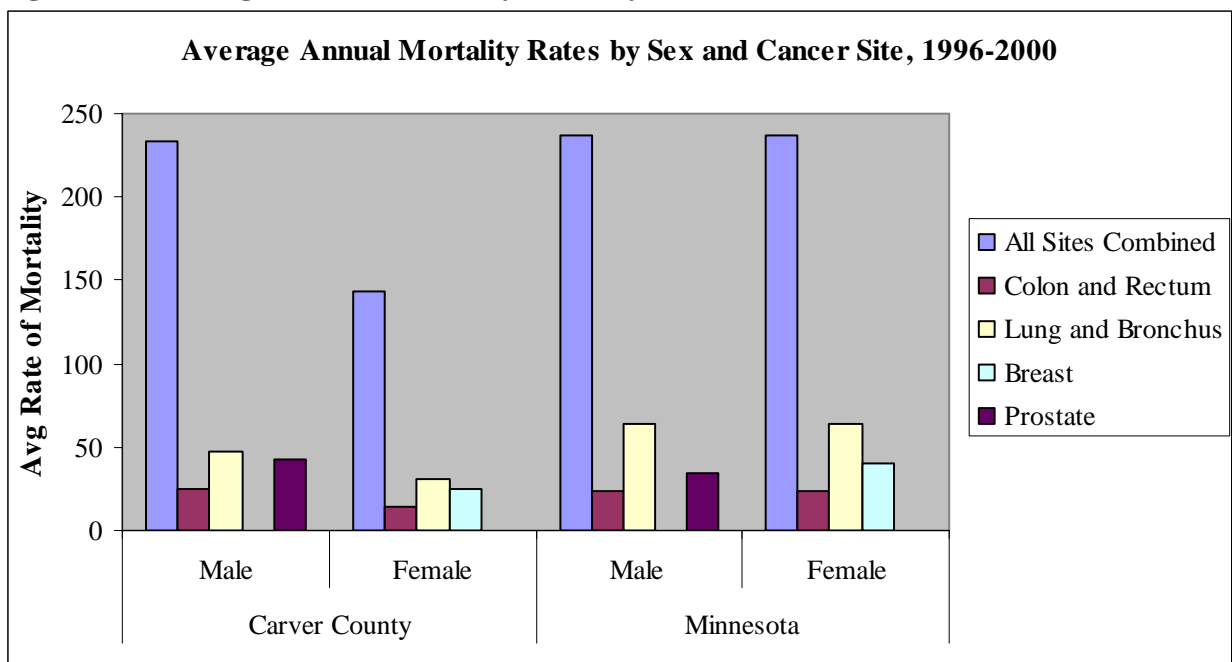
Source: Minnesota of Department of Health, Minnesota Cancer Surveillance System, 2003.

For all cancer sites combined, Carver County’s incidence rates are slightly lower than the state. Incident rates for Carver County males are slightly lower than the state for cancer of the lung and bronchus, as well as colon and rectum. However,

prostate cancer incidence rates for Carver County males are slightly above state incident rates. Carver County females have slightly lower incidence rates of breast cancer and a lower incidence rate for all sites combined than the state rate.

Figure 4.4 compares the annual mortality rates caused by different types of cancer for Carver County males and females with Minnesota average annual mortality rates of those types of cancer.

Figure 4.4: Average Annual Mortality Rates by Sex and Cancer Site, 1996-2000



Source: Minnesota of Department of Health, Minnesota Cancer Surveillance System, 2003.

In terms of cancer survival, Carver County females have a much lower mortality rate from cancer than the state average. Both males and females in Carver County have lower mortality rates for cancer of the lung and bronchus than Minnesota as a whole. Females have lower rates of mortality for cancer of the colon and rectum, but for Carver County males the mortality rate is very close to the state rate.

It is unfortunate that age specific data for cancer incidence and mortality rates were not available at the time of this

assessment. However, based on the available data, a few items perhaps merit future investigation and analysis. Carver County appears to have a higher average annual age-adjusted mortality rate for prostate cancer. This is based on preliminary numbers from the state; however, this finding may have a large impact on the male residents of Carver County. The number of diagnosed cases of cancer of the corpus uteri is only one less than the number of diagnosed lung and bronchus cancers among Carver County females from 1995-1999. Although the numbers are still small, awareness of this type of cancer may

be relatively low in comparison to other cancers mentioned more often such as breast, colon, and lung. From 1995-1999 urinary bladder cancer was the fifth most commonly diagnosed cancer among Carver County males. This was not the case for females.

Cardiovascular Disease (CVD)

Cardiovascular diseases such as heart disease and stroke are among the leading causes of death in Carver County, causing approximately one out of every three deaths. The picture is the same at the state and national levels. Although deaths from cardiovascular disease (CVD) have been decreasing in Minnesota over the past decade, CVD accounted for one-third of all deaths in Minnesota in 2001.

Cardiovascular disease refers to a wide variety of heart and blood vessel diseases and conditions including coronary heart disease, stroke, high blood pressure, high blood cholesterol, and rheumatic heart disease. In Carver County, cardiovascular diseases were the leading cause of death in 2001, accounting for 93 deaths.² Many of the problems related to cardiovascular diseases can be lessened and possibly even prevented through a healthy diet and lifestyle including several modifiable risk factors such as physical activity, cigarette smoking, obesity, blood cholesterol level, and high blood pressure. Yet many Minnesotans continue to put themselves at risk for CVD through their behaviors. The Center for Health Promotion's April 2003 report states that one-in-four adults in the state report they are physically inactive.⁶

The MDH report also estimates that approximately 22 percent of adults smoke and 20 percent report they have high blood pressure. However, less than half (46 percent) of adults report

their high blood pressure is under control. Almost two-thirds (61 percent) of Minnesotans are overweight, including 20 percent who are obese. Synthetic estimates from the Minnesota Behavioral Risk Factor Surveillance System (BRFSS) and the MDH estimate that in 2001 approximately 18.6 percent of residents in the seven Metropolitan counties (which includes Carver County) report having hypertension. Seventy-eight percent report having had their cholesterol checked within the last five years.⁷ Racial and ethnic communities also tend to experience higher mortality rates from stroke than the white community.

Diabetes

More than 1 in 18 Minnesotans has diabetes, according to the MDH, and approximately one-third don't know they have it.⁸ Therefore, of the estimated 3,510 Carver County residents with diabetes, roughly 1,160 residents do not know they have it.

Diabetes was the seventh-leading cause of death in Carver County and Minnesota in 2001.² The risk of cardiovascular disease and stroke is two-to four-times higher in people with diabetes. In addition, diabetes is the leading cause of non-traumatic amputations, blindness and end-stage renal disease.⁸ The MDH reports that there are significant, common and potentially modifiable risk factors that place many residents at risk for developing diabetes. These include the findings that one-in-six Minnesotans are obese, nearly one in four have no leisure-time physical activity, and 248,000 Minnesotans have a form of pre-diabetes. According to the Minnesota BRFSS for the seven-county Metropolitan area in 2001, 3.3 percent of the population reported having diabetes and 56.0 percent reported being overweight.⁷

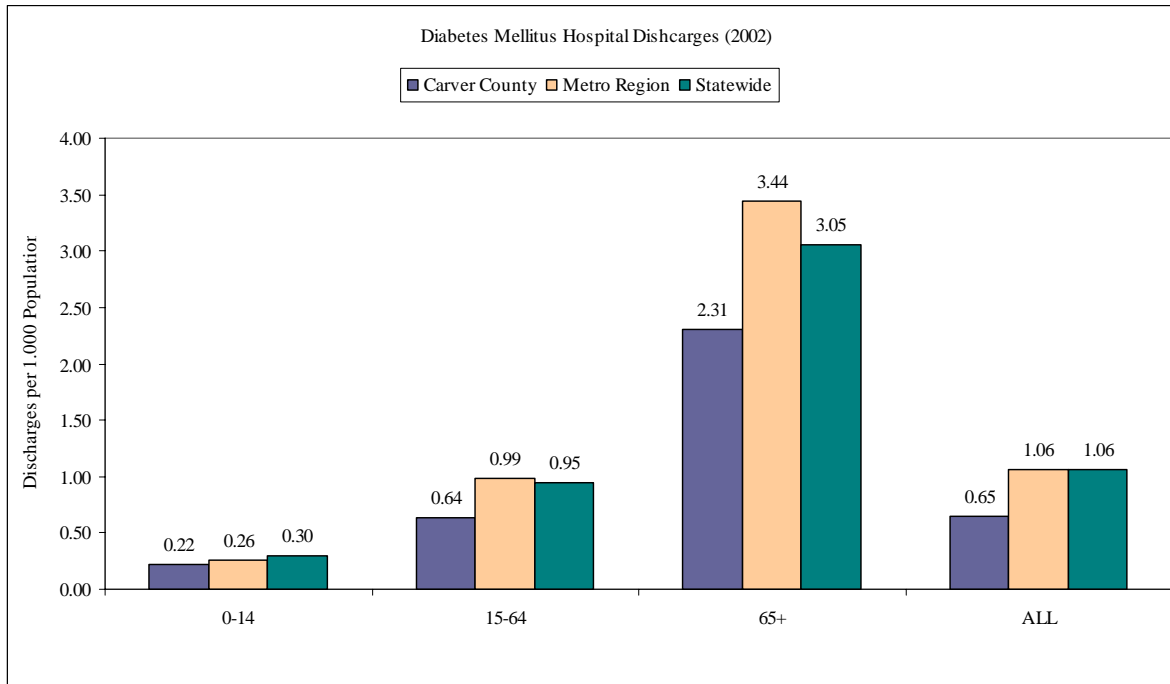
Diabetes is normally controlled by a combination of drugs, healthy diet and exercise. Because lifestyle is so important in controlling diabetes, much effort has gone into patient education. However, lifestyle changes can be a difficult choice for many diabetics to make.

The MDH report on diabetes states there are “huge racial and ethnic disparities in the death rates, prevalence, complications

and care received by Minnesotans with diabetes.” Compared to the white population, the diabetes death rate is 4.9 times higher in American Indians, 2.9 times higher in African Americans, and 1.7 times higher in Hispanic Americans, according to MDH. The diabetes death rate among Asian Americans in Minnesota is increasing faster than among other racial and ethnic groups.⁸

Figure 4.5 compares hospital discharges for diabetes mellitus for Carver County residents with those of metro region residents and Minnesota residents.⁹

Figure 4.5: 2002 Diabetes Hospital Discharges Carver County/ Metro Region/Minnesota



Source: Minnesota Hospital and HealthCare Partnership

Carver County rates of hospital discharges for diabetes at all age levels are lower than those for residents of the metro region and Minnesota.

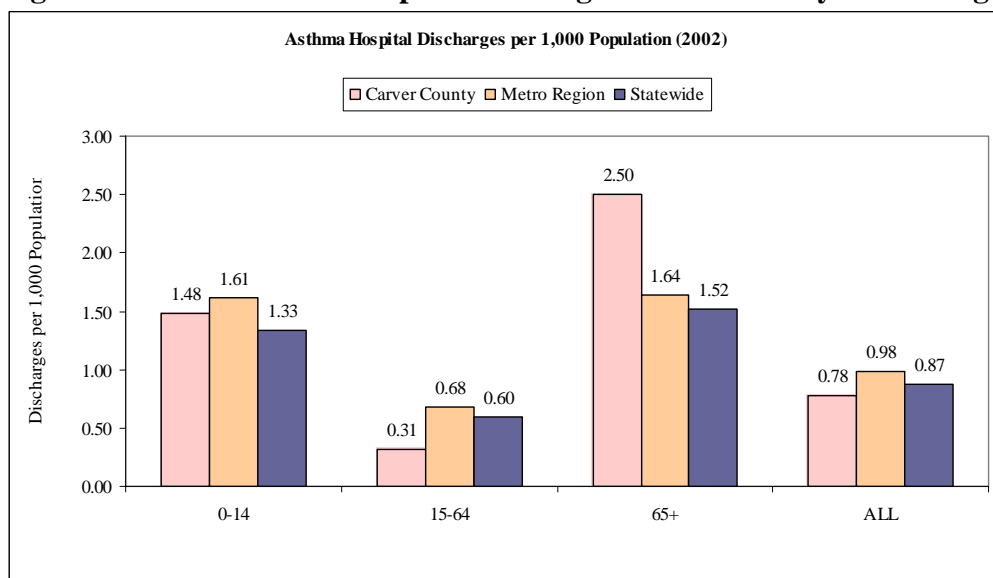
Asthma

Asthma is a chronic inflammatory disease of the airways that can affect people of any age. Childhood asthma is discussed in Child and Adolescent Growth and Development.

Asthma can be life-threatening, but people with asthma can live normal, active lives when their asthma is well-controlled. About ten percent of adult Minnesotans say they have been told by a physician they have asthma, according to the Minnesota Department of Health.¹⁰ The 2001 Minnesota BRFSS estimates that 11.0 percent of the seven-county Metropolitan area residents report having asthma.⁷

Figure 4.6 shows the rates of Minnesota Hospital Association hospital discharges for asthma for Carver County, the metro region and the state.⁹

Figure 4.6: 2002 Asthma Hospital Discharges Carver County/Metro Region/Minnesota



Source: Minnesota Hospital and HealthCare Partnership

In 2002, Carver County had a lower overall rate of hospital discharges of asthma patients than either the metropolitan region or Minnesota. However, county residents in two age

ranges, 0-14 and 65 and older, had higher rates of hospital discharges for asthma than the state range. The greatest difference is in the 65 and over age range; the Carver County

rate was 1.64 compared to the state rate of 1.52 for people 65 and older.⁹

In 2001, there were 78 deaths due to asthma in Minnesota, according to the Minnesota Department of Health. The MDH reported 73 percent of asthma deaths occurred in persons 65 years and older: 65 percent of these deaths were women who died.¹⁰

Summary

Carver County residents have lower death rates from major diseases such as heart disease and cancer than state and national rates. Yet the county's growing population means that an increasing number of Carver County residents will be at risk for the major chronic diseases such as diabetes, heart disease and stroke. As baby boomers age and as people live longer, the number of elderly will continue to grow, therefore causing an increase in the number of people who are most vulnerable to and affected by chronic conditions.

Hospital discharge data seems to indicate the need for Carver County to improve in several chronic disease areas. While the rate of diabetes mellitus hospital discharges for residents aged 0-14 is slightly below the Metro area and state rates, this population represents our most vulnerable residents. Poor health among the younger population often predicts a higher rate of chronic disease among the adult population.

At the other end of the scale is the problem of the high rate of asthma hospital discharges for the 65 years and older population in Carver County. The rate is almost twice as high as the state rate. Among this older age group, perhaps the issues of preventative care, medication management and

follow-up and physician care need to be better addressed by the community in the future.

At the present time, there is a limited amount of recent data available that describes Carver County resident adults 18 years of age and older in terms of the behavioral risks associated with chronic diseases such as physical inactivity, cigarette smoking, diet and nutrition, overweight and obesity, or high blood pressure. The percent of adults at risk for various behavioral health risk factors was derived through the application of the synthetic estimation method using the statewide Behavioral Risk Factor Surveillance System to provide estimates at the seven-metropolitan county level. In the future, gathering more specific local data on county residents' health behavioral assets and risks would help support organizing local programs to help residents adopt healthier lifestyles and provide much needed chronic disease surveillance activities. CCCHS is also continuing to develop and expand its own data capacity to better serve the chronic/non-infectious data collection needs of the community and surrounding area agencies.

Chronic conditions can have persistent or recurring health consequences lasting for years. Some of the most prevalent chronic conditions, such as sinusitis or hay fever, are generally not disabling; however, others like heart disease, diabetes, asthma, and arthritis, can cause significant limitations in people's ability to perform basic activities of daily living. Thus, in addition to medical services and medications, people who have chronic conditions often need personal, social, or rehabilitative care over a prolonged period of time. Furthermore, those who have chronic conditions are not the only ones that are affected. Family members and friends who

are responsible for either direct care or arranging care may have their lives significantly impacted by chronic diseases and/or conditions.¹¹

The research on chronic and infectious disease indicates the need for lifestyle changes to reduce the risks associated with heart disease, cancer and diabetes. Individual lifestyle changes are possible, but they are often difficult to initiate and change in a society that offers easy access to foods high in fat, sugar and calories and in a culture where physical inactivity is common. Organizing campaigns in workplaces, schools and through community groups helps support these changes. Successful efforts in increasing activity levels with Carver County have included walking programs, five-a-day contests and weight-control programs.

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