Due to the steady rise in the number of persons with diabetes there is growing concern about the possibility of substantial increases in diabetes-related complications; the possibility that caring for diabetics could overwhelm existing health care systems; and there is a clear need to complement diabetes management strategies with primary prevention.

### Severity

**Risk or mortality and morbidity associated with the problem**

- About one in 11 people have diabetes and 25% of them do not know they have it.
- 1 out of 3 adults have prediabetes and 90% of them do not know they have it.
- Without weight loss and moderate physical activity, 16-30% of the people with prediabetes will develop type 2 diabetes within five years.

### Magnitude

**Number of people impacted by the problem**

- An estimated 15,380 people in the five-county region have diabetes (9% of the 170,887 population) and an estimated 3,845 (25%) of them do not know they have it.
- An estimated 44,928 adults in the region have prediabetes (33% of the 136,143 residents age 18+) and 40,435 (90%) of them do not know they have it.
- Without weight loss and moderate physical activity, 7,188 to 13,478 (16-30%) of the estimated 44,928 adults in the five-county region with prediabetes will develop type 2 diabetes within five years.

### Impact

**Improving this problem would have a positive impact on health, quality of life or health disparities**

- Diabetes complications are debilitating, costly, and sometimes deadly. Diabetes is a major cause of health complications, such as heart disease, stroke, kidney damage, blindness, amputations of the legs and feet, and gum disease.
- The diabetes and obesity epidemics, combined with longer life spans, have increased the lifetime risk for developing diabetes in the US.
- The increasing frequency of both type 1 and type 2 diabetes in youth is another concerning aspect of the diabetes epidemic.
- Diabetes costs an estimated $245 billion annually in direct medical costs and indirect costs from lost work days, restricted activity, disability, and early death.
- Diabetes disproportionately affects American Indians in the US, with diagnosed diabetes rates more than twice as high as the rates for non-Hispanic whites.

### Sustainability

**Resources are available and barriers are surmountable**

Resources in the community include:

- Northern Michigan Diabetes Initiative and Shape Up North
- Munson Family Practice and other primary care providers, including FQHCs and Child & Adolescent Health Centers
- Munson specialty practices and other specialists in the region
- MSU-Extension, other colleges, schools, and early childhood programs
- Community organizations, such as trails councils and Groundwork Center
- Farmers markets, restaurants, school and work cafeterias
- Departments of Parks and Recreation, YMCA, and other facilities for physical activity
- Businesses and worksite wellness programs
- Health Departments’ chronic disease coordinating networks and other prevention initiatives

### Achievability

**Achievable and measurable outcomes are possible within three years**

Metrics include indicators collected by Community Health Solutions:

- Age-adjusted death rate due to diabetes
- Adults with diabetes
- Diabetes among the Medicare population
- Diabetes screening among the Medicare population
Death rates due to diabetes: Age-adjusted death rates due to diabetes in the region track or exceed State (23.4 per 100,000 population) in the region, with the exception of Grand Traverse (16.6 per 100,000) and Leelanau County (16.4 per 100,000); Antrim—24.0; Benzie—35.5; and Kalkaska—44.9 per 100,000.

Adults with diabetes: The proportion of adults with diabetes ranges from 9.1% in Grand Traverse County to 12.8% in Kalkaska County. Antrim (11.7%) Benzie (12.3%) and Kalkaska (12.8%) exceed State rate (10.7%) and all counties in the region track or exceed national rate (9%).

Diabetes among the Medicare population: The proportion of Medicare population diagnosed with diabetes in the five-county region ranges from 22.6% in Grand Traverse County to 28.5% in Kalkaska County.

Diabetes monitoring among the Medicare population: The proportion of Medicare enrollees with diabetes that receive HbA1c monitoring annually exceeds State rate (86%) in the region with the exception of Kalkaska County (83.6%): Antrim—88.4%; Benzie—88.7%; Grand Traverse—88.5%; and Leelanau—87.7%.

Community Conversations

111 community residents and stakeholders participated in one of five Community Conversations sponsored by local multipurpose collaborative bodies.

Each one answered the question, “What can we do here to move closer to our vision of a healthy community?”

Although none of the counties’ participants identified addressing diabetes specifically, each one discussed preventing chronic disease and/or increasing healthy eating and physical activity:

<table>
<thead>
<tr>
<th>Antrim</th>
<th>Benzie</th>
<th>GT</th>
<th>Kalkaska</th>
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What Matters to You? Survey

246 residents of Antrim, Benzie, Grand Traverse, Kalkaska and Leelanau counties completed the “What Matters to You?” Survey.

Overall, they ranked “obesity and overweight” as the third most important issue in their county, behind “substance use” and “lack of affordable housing”.

Major Forces of Change in the Community

16 members of the Munson CHNA Advisory Committee participated in a facilitated discussion to identify forces of change in the community. The following forces impact diabetes in the region:

- Munson programs and services
- State Improvement Model (SIM)
- Collaboration/collective impact
- Increase in aging population
- Affordable Care Act and Medicaid expansion (Healthy Michigan Plan)
- Changing social norms (kids get less physical activity)
- Easy access to information
- Technological advances

Health Care Provider Survey

50 physicians, nurse practitioners, and physician assistants from Kalkaska Memorial Medical Center, Munson Medical Center and Paul Oliver Hospital completed a brief Health Care Provider Survey.

Overall, they ranked “overweight and obesity” as the number one community health problem in their county of residence.

Visit [http://www.munsonhealthcare.org/CHNA-Community-Dashboard](http://www.munsonhealthcare.org/CHNA-Community-Dashboard) for data sources, including indicator description and year

Narrative adopted from Centers for Disease Control and Prevention, *Healthy People 2020 and National Prevention Strategy*