

Douglas County Comprehensive Plan Update Health Impact Assessment



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Prepared by

Douglas County
Public Health

Minnesota Department
of Health

DOUGLAS COUNTY COMPREHENSIVE PLAN UPDATE

HEALTH IMPACT ASSESSMENT

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INTRODUCTION

In 2010, the Minnesota Department of Health (MDH) received funds from the Association of State and Territorial Health Officials (ASTHO) to support and conduct Health Impact Assessments (HIAs). This assistance provided an opportunity to collaborate with Douglas County Public Health to evaluate the County's Comprehensive Plan. Douglas County was in the process of updating their comprehensive plan and wanted to evaluate the May 2010 draft from a public health perspective. The Comprehensive Plan provides a framework and policy direction for future land use, transportation, natural resource and park/open space decisions. Because of the fortuitous timing of the update, the availability of funds, and the importance of providing a health lens to the comprehensive plan, the decision was made to conduct an HIA on Douglas' County Comprehensive Plan. This report summarizes the findings and recommendations for the comprehensive plan determined by the HIA process.

HIAs are commonly defined as “a combination of procedures, methods, and tools by which a policy, program, or project may be judged as to its potential effects on the health of a population, and the distribution of those effects within the population” (1999 Gothenburg consensus statement).

HIAs can be effective in promoting health and well being in decision making. The Centers for Disease Control and Prevention (CDC) states, “A Health Impact Assessment can provide recommendations to increase positive health outcomes and minimize adverse health outcomes. The HIA framework is used to bring potential public health impacts and considerations to the decision-making process for plans, projects, and policies that fall outside of traditional public health arenas, such as transportation and land use.”

HIAs have been successful in Europe, Canada, and the United States in improving community health. Much of the success of HIAs is due to the use of evidence-based recommendations, which help strengthen its effectiveness and adaptability. Another benefit of HIAs is involving communities and vulnerable groups in decision-making processes. HIAs can serve as a tool to communities as it can help highlight certain health issues and outline specific recommendations.

HIA methodology consists of the following six steps:

Step 1: Screening - to determine if an HIA is useful for a specific project or policy

Step 2: Scoping - identify which health effects to consider

Step 3: Assessment - determine which people may be affected and how they may be affected

Step 4: Recommendations - suggest changes to proposal to promote positive or mitigate adverse health effects

Step 5: Reporting - present the results to decision-makers

Step 6 Evaluating - determine the effect of the HIA on the decision process

This report reviews the results from three HIA steps: scoping, assessment, and recommendations. Also, the report serves as a vehicle to present the results to decision makers (HIA step 5). Policy makers are encouraged to use the recommendations contained within this report to improve Douglas County's Comprehensive Plan so that it incorporates additional policies that support the health of its residents.

HEALTH CATEGORIES

SCOPING PROCESS:

On March 14, 2011, Douglas County Public Health and MDH met with the HIA Work Group (See Page 5 for a list of work group members) to perform the HIA scoping step on the draft Douglas County Comprehensive Plan Update. The scoping step helped determine the health categories to be assessed for the HIA. A number of health issues were discussed at the meeting, as well as, how the comprehensive plan may address those issues. At the end of the meeting, the HIA Work Group categorized the health issues and voted on their top health topics.

The work group decided to further assess the following five health categories:

1. Aging Population
2. Social Capital
3. Access to Places
4. Safety – Transportation
5. Water Quality *

The remainder of the report discusses the health categories, health indicators within each of the health categories, and provides language and policy recommendations to the draft comprehensive plan.

** The HIA workgroup identified water quality as a top health concern; however, during the assessment phase it was determined that there were not enough resources (time and data) available to evaluate this health category. Therefore, water quality issues were not included in the HIA. Douglas County is encouraged to consider evaluating these issues at another time.*

HEALTH INDICATORS

The following health indicators were chosen based on the health categories that were defined in the scoping meeting on March 14, 2011. These health indicators were used to evaluate the draft Douglas County Comprehensive Plan Update. A health indicator is used to measure or assess a particular health issue. The indicators were chosen by Douglas County Public Health and MDH based on the feedback received during HIA Work Group scoping meeting. Each indicator serves as a mechanism to provide recommendations for the comprehensive plan update to ensure that public health is being considered. The recommendations for each of the health indicators should be taken into consideration when updating the Douglas County Comprehensive Plan.

The following health indicators were selected:

- **Health Indicator #1**-Mapping demographic data using the most recent census data available (preferably mapping the information by census block for age 40 and over).
- **Health Indicator #2**- Map the location of senior services (i.e., hospitals, healthcare facilities, churches, grocery stores, shopping malls and community centers) and life-cycle housing (i.e. town homes, senior housing, apartments, and rental units).
- **Health Indicator #3** - Does the plan link existing and future housing development with employment and services?
- **Health Indicator #4** - Are there polices in place to maintain and increase recreational amenities (i.e., parks, open space and recreational facilities)?
- **Health Indicator #5** - Are there polices that require that all developments have views of greenery for mental health benefits?
- **Health Indicator #6** - Does the plan promote economic opportunities for low income and underemployed or insecurely employed individuals?
- **Health Indicator #7** - Map large recreational facilities, large community gardens, schools, large parks and open spaces.
- **Health Indicator #8** - Map trails and dedicated bicycle lanes and compare their location to residential uses.
- **Health Indicator #9** - Does the plan allow for clustering of different activities together?
- **Health Indicator #10** - Are there polices/plans aimed at supporting cycling and walking?
- **Health Indicator #11** - Map traffic accidents and severity rates.
- **Health Indicator #12** - Are complete streets, shared streets, and traffic-calming concepts incorporated in the future land use plan?

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AGING POPULATION

The Douglas County Comprehensive Plan should include additional goals and policies to better prepare for the growing elderly population. The County's population is expected to increase 32% over the next 25 years, with the age group of 65 and older increasing by 100% over the next 20 years (as stated above). In planning for the future, Douglas County will have to place a greater emphasis on meeting the needs and expectations of an aging population.

Services and amenities necessary to serve an increasingly elderly population include housing, transportation, health care, accessibility to food, faith communities and social gathering centers. Promoting healthy and accessible services and lifestyle options in these areas will help senior citizens improve their health, reduce their future demand for health care services, and preserve their dignity, their health and their ability to live independently.

Goals and policies in the Comprehensive Plan that support services and amenities for an independent aging population will enhance Douglas County's reputation as a popular destination for retirees. Attracting and retaining retirees will provide additional economic stimulus to the surrounding area. The Douglas County Comprehensive Plan should include additional policies and recommendations in the Land Use Plan, the Transportation Plan, Natural Resource Plan, and the Parks and Open Space Plan to prepare the community for a strong and successful aging population.

The HIA scoping process identified the aging population as an important health category to the citizens of Douglas County. The HIA workgroup members discussed a number of different issues that affect the current and upcoming aging population. One compelling demographic statistic stood out: that those over the age of 65 will increase 100% in the next 20 years. The stakeholders discussed many issues related to the elderly population including transportation problems, such as seniors not being able to drive and the fact that it is too expensive to pay for transportation into town. Another major concern is the isolation of seniors throughout the county. The workgroup members discussed the fact that many seniors have co-morbidities (i.e., having more than one illness/condition/disease at a time) that limit their options and ability to function independently. In order to assess some of these concerns, the following indicators were selected (Note: many of the health indicators in this report are relevant to an aging population, but only those specific to seniors are listed below):

- Health Indicator #1-Mapping demographic data using the most recent census data available (preferably mapping the information by census block for age 40 and over).
- Health Indicator #2- Map the location of senior services (i.e., hospitals, health care facilities, churches, grocery stores, shopping malls and community centers) and life-cycle housing (i.e. town homes, senior housing, apartments, and rental units).

AGING POPULATION - HEALTH INDICATORS

Health Indicator #1-Mapping demographic data using the most recent census available, preferably mapping the information by census block for age 40 and over.

The assessment reviewed the most recent population data available, i.e., the 2000 Census data. The 2010 Census data was not available at the time of the analysis. See Figure 1 for this indicator. The map shows the number of people per census block group who are 40 years old or older. Although dated, the information suggests where concentrations of people who are now 50 years old or older live. In order to confirm the areas with higher numbers of people 50 years and older, the County should create a new map using the 2010 census data once it becomes available.

The Demographic Overview Chapter in the Comprehensive Plan provides population projections for the years 2010 to 2035. These projections reinforce the notion that the County's population is getting older and will continue to age over time; therefore, the County will have to place a greater emphasis on meeting the needs of an aging population. The Comprehensive Plan recognizes the changing demographics, but does not take into consideration the impacts of an aging population on each of the chapter areas. The Comprehensive Plan needs to develop policy statements that guide the County's future development, so that it meets the challenges and opportunities of an aging population.

SUPPORTING LANGUAGE AND POLICY STATEMENTS THAT ADDRESSES HEALTH INDICATOR #1

- Demographic Overview (Page 9) – The plan recognizes that the County's population is aging. The plan also indicates that the County will have to place a greater emphasis on meeting the needs of an aging population.
- Demographic Overview (Page 9) – Age groups over 65 years of age will have over one hundred percent increase in the next twenty years (See Table 3 Population Projections).

HEALTH INDICATOR #1 - RECOMMENDATIONS

Additional language for consideration:

- Recognize the aging population throughout the Comprehensive Plan by addressing issues related to the shift in demographics.

Policy statements for consideration:

- The County will consider future data sources, such as the 2010 Census to better inform planning decisions.

Health Indicator #2- Map location of senior services (i.e., hospitals, health care facilities, churches, grocery stores, shopping malls and community centers) and life-cycle housing (i.e., town homes, senior housing, apartments, rental units)

With the senior population projected to increase 100% over the next 20 years, availability of senior services throughout the county will be needed in order to support the successful aging of the population. Seniors will need suitable housing options and access to many services and activities on a regular basis, including health care facilities, grocery stores, shopping malls, community centers, faith-related gathering places, places that support social activities, and housing options. Also, transportation options for seniors are critical to their ability to access these destinations.

Figure 2 begins to map a number of facilities located throughout the county that seniors may need to utilize. The map includes larger churches; health care facilities; senior housing; large stores/grocery stores; large parks/gardens and recreational areas; and schools. The majority of these facilities are located in the urbanized areas, especially within the City of Alexandria. Older people living in rural areas may have more difficulty accessing certain facilities and services because of their location and further distance from the urban centers. Many elderly services need a larger, denser population to economically sustain their activities, so it may not be possible to offer certain services within a less dense area. However, it is important to recognize and address access issues older citizens may face because of living in rural areas. In 2007, the Minnesota Department of Transportation released a report titled, “Creating Healthy Communities for an Aging Population.” According to the report, as people age, isolation becomes a growing problem, while access and mobility become increasingly critical needs.

Figure 2 also highlights where senior housing facilities are located. Accommodating a range of housing options will be essential in allowing residents to age in place. With a larger proportion of residents being 65 years old or older, the Comprehensive Plan needs to plan for a large proportion of the population that may be living on fixed incomes. Providing a mix of housing options will help meet the needs of all Douglas County’s community members, regardless of age, lifestyle and income level.

One study suggested that people, who needed emergency medical attention and lived further away from a hospital, had an increased likelihood of mortality compared to those who lived closer to a hospital. Figure 3 mapped the location of healthcare facilities and hospitals within the county. Also included in this map are healthcare facilities located outside Douglas County; many individuals living close to these areas, use these facilities instead of going to Alexandria. The map shows a five-mile service area buffer around communities that have a healthcare facility or hospital (the only hospital in Douglas County is located in the City of Alexandria). The five-mile service area buffer does not imply that people who live outside of the buffer will have more

medical issues because of their location. The buffer merely begins to suggest potential health care service gaps within the county. Areas in pink could potentially pose a number of mobility and access issues for an elderly population. These areas should be re-evaluated with 2010 Census population data to determine if there are specific areas of concern. The County should continue to assess potential barriers and service gaps to improve services and transportation needs for the elderly.

The following language and policy statements help to support a healthy environment for an aging population:

SUPPORTING LANGUAGE AND POLICY STATEMENTS THAT ADDRESSES HEALTH INDICATOR #2

- Land Use Plan (Page 68) - Policy P1.10: Maintain a positive balance between the living and working environment with an appropriate mix and distribution of residential, commercial and recreational land uses.
- Land Use Plan (Page 75) - Policy C/L14: Encourage the development of major commercial facilities (shopping centers and large box retail) to locate in or near existing cities where public services (sewer and water) and roads can easily be extended and constructed.
- Transportation Plan (Page 92) - Section 2.7: The Rainbow Rider Transit Service is an independent transportation agency that operates both fixed (deviated) route and demand-response/dial-a-ride services. Rainbow Rider provides daily services throughout Douglas County and connecting services to/from Pope County with occasional routes to locations within Todd County.
- Transportation Plan (Page 92) - Section 6.2 Alternative Travel Modes: The Rainbow Rider Transit Service provides demand –response/dial-a-ride and fixed (deviation) route services and operates bus service throughout Douglas County and within Pope County. Douglas County will continue to support these services as well as potential service to the St. Cloud Area.
- Transportation Plan (Page 118) - Policy 3.1: The County will coordinate with the Rainbow Rider Transit Service to determine future transit services consistent with the County’s transit market and its associated service standards and strategies.
- Transportation Plan (Page 118) - Policy 3.2: Evaluate the need for transit facilities and accommodations in the redesign and reconstruction of roadways whether or not they are currently used by transit providers.
- Parks and Open Space (Page 55) – Facility Development & Maintenance, Policy 2: Construct or upgrade recreation facilities that will meet or exceed ADA requirements for accessibility.

HEALTH INDICATOR #2 - RECOMMENDATIONS

Additional language for consideration:

- Consider highlighting County programs that provide services to seniors and how those services will continue to meet an aging population.
- Discuss transportation issues associated with rural parts of the community that may not have appropriate access to senior services, health care facilities, hospitals or areas that may require a longer emergency response time.

Policy Statements for consideration:

The following recommendations are based on the “Creating Healthy Communities for an Aging Population” report by MDH.

- Improve transportation options for elders by identifying barriers, gaps, and assets and by implementing collaborative efforts at local, regional and state levels.
- Support local and regional task forces to assess and address transportation issues and include health care providers in the effort.
- Support public, private, and volunteer partners to coordinate local transportation options.
- The County will work with local and regional transit authorities to identify services that can accommodate seniors in rural parts of the county.

SOCIAL CAPITAL

There are varying ways to define social capital. In this case, social capital is defined through a community development and public health perspective. This perspective looks at building social capital through enhancing social networks and understanding their relationships within a community. These relationships are established through places to meet and socialize, such as neighborhoods, employment centers, churches, schools, open spaces, sidewalks, community groups and social events. Creating public spaces for people to meet and build relationships can bring a stronger sense of place and social cohesion to a community. Social capital also requires a healthy community that offers a diversity of jobs and housing options that support the needs of the community members. Job and housing diversity supports interaction between multiple social groups, which adds to the community's social cohesion and capital.

Building social capital takes time and requires a community vision that considers the needs of all age groups, income levels and life styles. The Comprehensive Plan can provide a vision and foundation for building social capital. The Douglas County Comprehensive Plan can include polices and recommendations in the Land Use Plan; Transportation Plan; Natural Resource Plan; and Parks and Open Space Plan to enhance social capital.

The HIA scoping process identified social capital as an important health category to the citizens of Douglas County. The stakeholders that participated in the working group discussed a number of different issues and opportunities that addressed social capital. These discussions evolved around housing options, job growth, mental well being, preserving the natural environment and recreational amenities, as well as meeting the needs of the existing population and future populations. In order to assess how the Comprehensive Plan is addressing social capital and community development, the following indicators were selected:

- Health Indicator #3 – Does the plan link existing and future housing development with employment and services?
- Health Indicator #4 – Are there policies in place to maintain and increase recreational amenities (i.e., parks, open space and recreational facilities)?
- Health Indicator #5 - Are there policies that require that all developments have views of greenery for mental health benefits?
- Health Indicator #6 - Does the plan promote economic opportunities for low income and underemployed or insecurely employed individuals?

Health Indicator #3 – Does the plan link existing and future housing development with employment and services?

The Land Use Plan provides a number of policy statements that support the connection between residential uses with employment and services. For example, Land Use Policy 2.4 states that the County will support land use patterns that efficiently connect housing, jobs, transportation, transit and retail and commercial centers. The Transportation Plan also provides policies that link residents with employment and services through multimodal transportation options. These policies and others are an important step in building relationships between different social groups. Providing multimodal transportation options is especially important in meeting the needs of an aging population.

In order to effectively address the health indicator and build social capital, future housing will need to meet the needs of the community. In this case, a variety of housing options should be considered to address the County's changing demographics. Housing is primarily discussed from a policy and development standpoint and not from a housing stock perspective. According to the demographer's office, the County's population is aging and is projected to lose younger people. These changes will require a different range of housing options. At the moment, the plan does not address the aging population's housing needs and what is available.

The plan should set the stage for lifecycle housing and/or workforce housing options. These types of housing developments provide residents the ability to age in place and select housing options that meet their changing lifestyles and abilities. These types of housing options include affordable homes for different income levels, rental units, senior housing, assisted living, mixed-use developments and single-family dwellings. Different types of housing options should be encouraged and integrated throughout the community to enhance relationships between different age groups, lifestyles and income levels.

SUPPORTING LANGUAGE AND POLICY STATEMENTS THAT ADDRESSES HEALTH INDICATOR #3

- Land Use Plan (Page 67) - Policy 1.1: Encourage diversified housing, commercial, industrial development that maximizes the use of public infrastructure such as roads, sewer, water, and other public services.
- Land Use Plan (Page 68) – Policy 1.3: Support the efficient, orderly growth of cities and towns adjacent to their borders by encouraging redevelopment infill within the cities before expansion into rural areas.
- Land Use Plan (Page 38) – Policy 1.10: Maintain a positive balance between the living and working environment with an appropriate mix and distribution of residential, commercial and recreational uses.

- Land Use Plan (Page 68) – Policy 2.4: Support land use patterns that efficiently connect housing, jobs, transportation, transit, and retail and commercial centers.
- Transportation Plan (Page 118) – G3.4: The County will ensure planned development/redevelopment is considered in future accommodations for transit facilities or services.
- Transportation Plan (Page 119) – G4.1: Provide a network of interconnected pedestrian/bicycle facilities that provides connections among communities, to residential neighborhoods, and commercial developments.

HEALTH INDICATOR #3 - RECOMMENDATIONS

Additional language for consideration:

- Discuss the County’s housing needs and how it may be addressed at the County level.

Policy statement for consideration:

- Partner with local housing agencies to assist in the development of affordable housing that is within close proximity to employment centers and services.
- Encourage a balanced housing stock that meets the needs of all income levels, age groups and lifestyles within the County.
- Encourage different types of housing options within different socio-economic communities.

Health Indicator #4 – Are there policies in place to maintain and increase recreational amenities (i.e., parks, open space and recreational facilities)?

As discussed earlier, social capital can be built in a number of different ways. In this particular case, social capital is viewed through the relationships of different social networks. Creating places to socialize, gather and recreate can help foster these relationships. The Parks and Open Space Plan begins to lay the foundation for how these amenities can be integrated throughout the community, in addition to maintaining existing facilities. However, there is not a clear vision on how the County's parks, open spaces and trails fit together as a regional system. In some respect, this issue has been identified by recognizing the need for a Comprehensive Parks, Trails, Recreation and Open Space Master Plan (See page 54 - Planning & Design, Goal 1). Developing and adopting a master plan can provide an overall vision for the regional system and a more in-depth examination of the County's existing and future recreational needs. The master plan should provide essential details on implementing the regional system and should consider addressing the following items if appropriate:

- Programmed trail and park improvements
- Recreational service area gaps
- Community gardens
- Crime Prevention Through Environmental Design (CPTED) strategies
- Recreational amenities for an aging community and other changing demographics
- Tree preservation and maintenance program
- Large gathering areas for cultural celebrations and community events
- Recreational needs for emerging trends (i.e., lacrosse, skate parks, rugby and ultimate frisbee).
- Recreational amenities that support active living (e.g., using recreational trails as a means of travel to schools, shopping areas, and other services from residential areas)
- Connectivity between parks and residential areas.

Policies and actions that meet the County's recreational needs should continue to incorporate active living principles. Active living principles (i.e., principles that integrate physical activity into our daily activities, such as walking to school or work) are important to recognize, because the built environment can have an effect on whether or not members of the community choose to be physically active. Providing parks, play areas, sidewalks and trails throughout the community can help encourage healthier lifestyles through physical activity. Benefits associated with regular physical activity can include the reduction in heart disease, diabetes and other chronic diseases.

The Comprehensive Plan has referenced the use of active living principles. However, the principles have not been defined. Active living principles promote physical activity, support healthier lifestyles, improve the livability of the community and provide residents opportunities for active living. The HIA strongly recommends that the Comprehensive Plan establish a set of active living principles. Active living principles will need to be integrated or linked throughout the plan. The following principles, provided by Active Living Research should be incorporated into the comprehensive plan:

1. Physical activity is a behavior that can favorably improve health and quality of life.
2. Everyone, regardless of age, gender, language, ethnicity, economic status or ability, should have safe, convenient and affordable choices for physical activity.
3. Places should be designed to provide a variety of opportunities for physical activity and should accommodate a wide range of individual preferences and abilities.
4. Development patterns should encourage mixed uses, compact design, and a variety of transportation choices.
5. Buildings should be designed and oriented to promote opportunities for active living, especially active transportation.
6. Transportation systems, including transit, should provide safe, convenient and affordable access to housing, worksites, schools and community services.
7. Parks and green space, including trails, should be safe, accessible and part of a transportation network that connects destinations of interest, such as housing, worksites, schools, community services and other places with high population density.
8. Municipalities and other governing bodies should plan for ongoing interdisciplinary collaboration, promotion of facilities, behavioral supports, policies that institutionalize the vision of active living, and routine maintenance that ensures continued safety, quality and attractiveness of the physical infrastructure.
9. Community governing and planning processes should address the multiple impacts of the built environment and transportation choices on residents' ability to be physically active.

Recently, Richard Louv, author of the Nature Principle, expounded on the benefits of trees and parks for people's health. He noted that many physicians are now prescribing walks in a park for their patients to prevent (or treat) health problems ranging from heart disease to attention-

deficient disorder. People who walked outdoors in a park versus in an indoor shopping center had greater improvements in self-esteem and mood, especially for feelings related to anger, depression and tension. Results showing the added benefits of exercising in parks versus exercising indoors have been replicated in other studies. Additionally, doctors are finding that if patients can get outdoors, they are more likely to be consistent about exercise. Exposure to nature, through such activities as walking in a park, has been associated with lower blood pressure, lower muscle tension, increased positive mood and decreased stress. Parks and trails not only encourage and support physical activity; they also provide important mental health benefits that can help restore mental fatigue.

The Land Use Plan supports a policy (See page 68 - Policy P1.9) that endorses the use of land throughout the county to encourage active and healthy living; however, implementing the goal and policies related to active living may be difficult to achieve without a master plan. More specific language on implementation needs to be developed to guide policy makers. A master plan could clarify the County's overall vision for active living and provide the details on how to implement active living strategies.

The HIA supports the goal of developing and adopting a master plan that meets the County's existing and future recreational needs. Developing this plan will help support the goals and policies identified in the Parks and Open Space Plan. The bullet points listed below highlight some of the goals and policies that support active living and a regional recreational system that meets the community's needs.

SUPPORTING LANGUAGE AND POLICY STATEMENTS THAT ADDRESSES HEALTH INDICATOR #4

- Natural Resources Section (Page 28)-Policy 4.1: Support programs like “Active Living” and develop “Douglas County—Sustainable Communities” initiative (or similar) to attract, motivate, and empower residents to support and advance County's health, conservation, and sustainability goals.
- Land Use Plan (Page 68)-Policy P1.9: Promote land uses throughout the county that encourage active and healthy living.
- Parks and Open Space (Page 35) – Statement: Will support the public's concerns for more recreational opportunities throughout the County, which included bike trails linking to schools, places of business, and the Central Lakes Trail.
- Parks and Open Space (Page 35) - Statement: In general, there appeared to be interest in expanding the development of an interconnected County trail system that provides linkages to the Central Lakes Trail and other key destinations such as schools and businesses and better access to existing county parks.
- Parks and Open Space (39) Statement: Trails provide opportunities for physical exercise, wildlife viewing, socializing, and simply enjoying the natural resources of Douglas

County. More importantly, they support the vision of Douglas County Active Living to “create a healthy community that makes active living a routine part of daily life”. Planning for an inter-connected trail system enables residents to choose another mode of transportation to experience the natural and cultural resources or to travel to a favorite destination within the County.

- Parks and Open Space (Page 52) - Active Living Douglas (section 4.9): Douglas County has received support from Blue Cross and Blue Shield of MN to promote the active living principles. Developing goals and policies within the Parks, Recreation and Trails chapter of the Comprehensive Plan that support the Active Living by Design movement in Douglas County will provide and facilitate needed changes to the parks and trail system needed to implement the vision and goals to “make active living a routine part of daily life”.
- Parks and Open Space (Page 52) Goal 2: Establish coordination between Active Living Douglas County, and Douglas County Parks Division of Public Works Department
- Parks and Open Space (Page 53) – Land Acquisition, Goal 1: Provide parks, open space, historic and archeological areas and trail network to accommodate active and passive recreational pursuits for current and future residents.
- Parks and Open Space (Page 53) – Land Acquisition, Goal 2: Maintain adequate acreages of County Park sites and open spaces to meet current and future needs.
- Parks and Open Space (Page 53) –Land Acquisition, Policy 1: Adopt a county park acreage standard of 25 acres of parkland per 1,000 populations.
- Parks and Open Space (Page 53) –Land Acquisition, Policy 2: Coordinate the actions of government units with citizens and special interest groups to provide a collaborative County wide recreation system.
- Parks and Open Space (Page 54)–Land Acquisition, Policy 4: Examine the potential acquisition of additional parkland in areas of high growth or demonstrated demand.
- Parks and Open Space (Page 54) – Planning & Design, Policy 4: Consider all public school facilities and recreation areas in the planning of the County park, recreation, trail and open space plan.
- Parks and Open Space (Page 54) – Planning & Design, Policy 6: Incorporate Douglas County Active Living principles into the park, recreation and trail system planning and design.
- Parks and Open Space (Page 55) – Trails, Goal 1: To provide county residents with a countywide interconnected trail system and access to regional trails.
- Parks and Open Space (Page 55) – Trails, Goal 2: To provide county residents with multi-modal transportation opportunities that will integrate Douglas County Active Living polices and strategies into physical recreational infrastructure.
- Parks and Open Space (Page 55) – Trails, Policy 1: Expand or develop countywide trail connections and provide linkages between county parks and to the Central Lakes Trail.

HEALTH INDICATOR #4 - RECOMMENDATIONS

Additional language for consideration:

- Define what active living means to the County.
- Explain the County's Active Living by Design Principles.

Policy Statements for consideration:

- The HIA recommends that the County develop a master plan with details on implementing a regional parks and recreation system and active living principles.
- Adopt Active Living Principles provided by Active Living Research.

Health Indicator #5 - Are there policies that require that all developments have views of greenery for mental health benefits?

During the scoping process, the HIA Work Group identified mental health as an important issue within Douglas County. One way to address mental health issues through the comprehensive planning process is to develop policies that encourage access and views to trees, green spaces and parks.

A number of studies have shown a connection between nature and people's mental and physical health. Roger Ulrich, a professor at Texas A&M University, in a seminal and oft-cited 1984 study, found that patients who had a view of trees out the window of their hospital room needed less medication and recovered more quickly from surgery than patients without a view. Since that study, research has mounted showing a positive overall effect of "nature." Simply viewing trees can provide mental restorative benefits. Experiencing nature by visiting gardens, forests and parks provides healing benefits as well. A large population-based study in Sweden reported people who visited open green spaces had less stress than those who didn't visit green spaces or visited them less often. Another study showed that residents of neighborhoods with extensive green space enjoyed better health than neighborhoods without green space. Many studies demonstrate that exposure to and views of "nature" (defined as trees and plants) reduce stress and aid in the restoration of mental attention.

The Comprehensive Plan supports preserving and planting trees from an ecological perspective, but it does not acknowledge the health benefits of views of greenery. Below is language related to Health Indicator #5 that is already contained in the Comprehensive Plan and additional suggested language and policies that could be included to strengthen the indicator.

SUPPORTING LANGUAGE AND POLICY STATEMENTS THAT ADDRESSES HEALTH INDICATOR #5

- Natural Resources Section (Page 26)-Policy 1.6: Require tree preservation and mitigation standards for development projects and other land disturbances.
- Land Use (Page 69)-Policy P4.3: Encourage tree preservation consistent with site ecology and planned land use.
- Land Use (Page 69)-Policy P4.4: Encourage tree planting/reforestation consistent with site ecology and planned land use.

HEALTH INDICATOR #5 - RECOMMENDATIONS

Additional language for consideration:

- Explain health benefits of trees, parks and open spaces.

Policy Statements for consideration:

- There are no recommendations for consideration.

Health Indicator #6 - Does the plan promote economic opportunities for low income and underemployed or insecurely employed individuals?

Policies 2.5 and 2.6 (See below) support economic growth and promote jobs that fit the skills and income needs of the County's labor force. The two policy statements are fundamental in creating a community that builds social equity. However, the policy statements should explicitly state the County's diverse local and global economic opportunities. It is important to recognize the diverse opportunities the County has to offer, including agricultural production, commercial uses related to seasonal recreation, and other industries. Establishing innovative and diverse economic opportunities promotes business growth and brings new jobs to the area, which can foster a higher quality of life for residents and businesses. Sustaining the County's economic vitality is important in meeting the health indicator and creating social capital.

SUPPORTING LANGUAGE AND POLICY STATEMENTS THAT ADDRESSES HEALTH INDICATOR #6

- Land Use Plan (Page 69) - Policy 2.5: Pursue a healthy economic environment and quality of life that will attract and retain quality businesses and employment.
- Land Use Plan (Page 69) – Policy 2.6: Recruit businesses that fit the skills and income levels of the County's labor force.

HEALTH INDICATOR #6 - RECOMMENDATIONS

Additional language for consideration:

- Provide language that discusses the County's economic competitiveness within the region and state.
- Discuss programs or incentives available for attracting new businesses and industries.

Policy statement for consideration:

- Encourage economic growth to bring wealth to the region by sustaining a high quality of life and maintaining the County's economic competitiveness.
- The County will work with local jurisdictions and businesses to create a stronger business climate for attracting new business and industries.

ACCESS TO PLACES

Providing safe and convenient access throughout the County generated significant conversation at the HIA Work Group meeting. During the HIA scoping process, the health category, “access to places,” received the highest number of votes when determining the health categories for further assessment. The stakeholders discussed a number of issues and opportunities related to access and the County’s transportation network. “Access to places” embraces a multimodal transportation network that meets the needs of the entire community, regardless of age, physical ability, lifestyle and income level. More importantly, it is a system that is sustainable and integrated into the fabric of the community.

In order for Douglas County to remain a viable, growing, vacation/or permanent living destination, there has to be future planning addresses and describes how people will move within the County. The HIA envisions a community that is easily accessible to all those who live there. The community should beckon to all walks of life, ages, abilities/disabilities and interests. In order to address “access to places,” the following health indicators were selected:

- Health Indicator #7 - Map large recreational facilities, large community gardens, schools, large parks and open spaces.
- Health Indicator #8 - Map trails and dedicated bicycle lanes and compares their location to residential uses.
- Health Indicator #9 - Does the plan allow for clustering of different activities together?

ACCESS TO PLACES - HEALTH INDICATORS

Health Indicator #7 -Map large recreational facilities, large community gardens, schools, large parks and open spaces.

The mapping of recreational areas and facilities has been depicted in Figure 2 and within the Comprehensive Plan's existing parks and trails maps. These maps have helped inform the health indicators discussed in this report. However, additional mapping is needed to fully understand the County's recreational amenities and their connections to residential areas and other services. Developing a map that overlays recreational facilities, trails, large community gardens, schools, residential areas, businesses, services and large parks would provide additional information to several chapters of the Comprehensive Plan and would aid in future planning for connectivity between places where people live, work and play.

SUPPORTING LANGUAGE AND POLICY STATEMENTS THAT ADDRESSES HEALTH INDICATOR #7

- Maps located in the Comprehensive Plan that depict the location of parks, open spaces and trails.
- Parks and Open Spaces (Page 54) – Planning and Design, Policy P4: Consider all public school facilities and recreation areas in the planning of the County park, recreation, trail and open space plan.
- Parks and Open Spaces (Page 55) – Trails, Goal 1: To provide county residents with a countywide interconnected trail system and access to regional trails.
- Parks and Open Spaces (Page 55) – Trails, Policy 1: Expand or develop countywide trail connections and provide linkages between county parks and to the Central Lakes Trail.
- Transportation Plan (page 119) – Enhanced Pedestrian/Bicycle Facilities, Goal G4.1: Provide a network of interconnected pedestrian/bicycle facilities that provides connections among communities, to residential neighborhoods, and commercial developments.

HEALTH INDICATOR #7 - RECOMMENDATIONS

Additional language for consideration:

- There is no additional language for consideration.

Policy statements for consideration:

- Consider depicting the location of schools, services, residential areas, commercial areas and other recreational facilities/community gathering centers on the existing parks and trails map. (May be revised by Dave Rush to reflect an inter-governmental cooperation policy).

Health Indicator #8 - Map trails and dedicated bicycle lanes and compare their location to residential uses.

The built environment can have an effect on whether or not members of the community choose to be physically active. The built environment must be conducive to pedestrians and bicyclists to encourage physical activity. Benefits associated with physical activity can include reduction in heart disease, diabetes and other chronic diseases. Supporting trails, sidewalks and bicycle routes also can offer more than just a healthier lifestyle; they can offer an alternative transportation mode between land uses. For instance, biking has become more important to Minnesota residents in recent years. In fact, Minnesota has been recognized as one of the most bike friendly states in the United States. The League of American Bicyclists, which represents 300,000 cyclists, ranked Minnesota as the fourth friendliest state for biking. This recognition can be credited to a number of local bike initiatives throughout the state. Also, it can be credited to recent legislation that established a complete streets policy for the State of Minnesota, which provides design flexibility for state-aid roadway projects. The law defines a complete street as:

“Complete Streets” is the planning, scoping, design, implementation, operation, and maintenance of roads in order to reasonably address the safety and accessibility needs of users of all ages and abilities. Complete streets considers the needs of motorists, pedestrians, transit users and vehicles, bicyclists, and commercial and emergency vehicles moving along and across roads, intersections, and crossings in a manner that is sensitive to the local context and recognizes that the needs vary in urban, suburban, and rural settings.

To some extent, the Comprehensive Plan has embraced complete streets principles by encouraging a number of the components contained within the definition above; however, additional maps and policies should be added to the Comprehensive Plan to fully embrace the complete streets policy.

In regards to health indicator #8, mapping of bike facilities has not been met. The Parks and Open Space chapter provides an existing park and trails map that only highlights the Cedar Lake Trail. Bike routes are recognized in the plan (See page 50), but not depicted on the transportation maps. The plan does recognize the bicycle/trail efforts taking place in the City of Alexandria. Additional mapping is needed to fully understand the County’s bike network. Providing this type of mapping will better inform the health indicators and the proposed Parks, Trails, Recreation and Open Space System Plan that is recommended in the parks chapter. It should be noted that the Transportation & Park Plan goals do support a network of interconnected pedestrian/bicycle facilities between land uses.

SUPPORTING LANGUAGE AND POLICY STATEMENTS THAT ADDRESSES HEALTH INDICATOR #8

- Parks, Recreation, Trails and Open Spaces (Page 55) – Trails, Goal 1: To provide County residents with a countywide interconnected trail system and access to regional trails.
- Parks, Recreation, Trails and Open Spaces (Page 55) – Trails, Goal 2: To provide county residents with multi-modal transportation opportunities that will integrate Douglas County Active Living policies and strategies into physical recreational infrastructure.
- Parks, Recreation, Trails and Open Spaces (Page 55) – Trails, Policy 1: Expand or develop countywide trail connections and provide linkages between county parks and to the Central Lakes Trail.
- Parks, Recreation, Trails and Open Spaces (Page 56) – Trails, Policy 2: Whenever physically and economically feasible, acquire utility, roadway and railroad right-of-way easements that allow construction for future trails.
- Transportation Plan (page 119) – Enhanced Pedestrian/Bicycle Facilities, Goal G4.1: Provide a network of interconnected pedestrian/bicycle facilities that provides connections among communities, to residential neighborhoods, and commercial developments.

HEALTH INDICATOR #8 - RECOMMENDATIONS

Additional language for consideration:

- Provide language that recognizes “Complete Streets.”
- Provide a trail map that highlights County bike routes and major destinations.

Policy statements for consideration:

- The County will explore a complete streets policy.
- Roadway projects will consider the needs of all users, including motorists, pedestrians, bicyclists, transit users, vehicles and emergency vehicles.
- The HIA recommends that the County develop a master plan with details on implementing a regional trail/bike network that connects major destinations.

Health Indicator #9- Does the plan allow for clustering of different activities together?

The primary intent of this indicator is to determine if the plan supports a number of policies that cluster different activities together. Clustering many activities together can provide a number of benefits to a community. Clustering activities can increase the intensity and diversity of land uses and integrate segregated uses together, providing a centralized node to conduct business, shop, live and work all in one place. This type of land use planning can foster a more pedestrian and bicycle friendly environment, in addition to supporting transit type services. Land use patterns that reflect clustering of activities may include mixed-use developments, planned unit developments and/or transit-oriented developments.

From an “access to places” perspective, clustering different types of activities together can help eliminate our dependency on the automobile, which has contributed to a number of social, environmental and health issues. Our dependency is clearly reflected in the 2009 Report Card for America’s Infrastructure by the American Society of Civil Engineers (ASCE). Their research reported that 76% of Minnesota’s major urban highways are congested and the number of vehicles traveled on Minnesota’s highways increased 47% from 1990 to 2007.

The automobile continues to be a major mode of transportation for Minnesotans and will be the primary mode of choice for many residents in Douglas County, especially for those who live in rural parts of the community. Additionally, the County will need to take into consideration the increasing aging population and their ability to access places they need to go, such as residential areas, churches, health care facilities, employment opportunities (as we anticipate the age of those still seeking employment will continue to rise), grocery stores and drug stores. The Comprehensive Plan should address the best way for people of all ages and abilities to access these services. The County should plan for different types of transportation systems, such as connections to the Central Lakes Trail and the Rainbow Rider, which ideally provide economical transportation options to the community.

The Comprehensive Plan has provided a number of policy statements that support the clustering of uses and a multimodal transportation network. However, there should be a stronger emphasis on connecting land uses with alternative modes of transportation, including transit, trails, bike routes and sidewalks. (Connecting land uses with multi-modal transportation is being addressed in the transportation health indicator.)

SUPPORTING LANGUAGE AND POLICY STATEMENTS THAT ADDRESSES HEALTH INDICATOR #9

- Land Use Plan (Page 68) – Policy P1.5: Encourage contiguous development throughout the county whenever possible to discourage leapfrog pattern of development.
- Land Use Plan (Page 68) - Policy P1.7: Allow for conservation design options in agriculture and residential land use areas, such as “Cluster Developments” to preserve open space and rural character and reduce the infrastructure development costs.
- Land Use Plan (Page 68) – Policy P1.8: Encourage transit-oriented, pedestrian friendly, traditional neighborhood development patterns of growth that support healthy living and provide connections to public transit and non-motorize transportation facilities.
- Land Use Plan (Page 68) – Policy P2.2: Support small clusters of commercial and light industrial development in areas with existing development and at key intersections (nodes) within the County that do not impact nearby properties and do not require municipal infrastructure services.
- Land Use Plan (Page 68) – Policy P2.4: Support land use patterns that efficiently connect housing, jobs, transportation and retail and commercial centers.

HEALTH INDICATOR #9 –RECOMMENDATIONS

Additional language for consideration:

- There is no additional language for consideration.

Policy statements for consideration:

- There are no recommendations for consideration.

SAFETY & TRANSPORTATION

Public health and transportation are topics not normally discussed with each other in today's world. As a result, in many neighborhoods, kids are bused to school because the main route to school is not safe for walking. In others, the community is designed so the only way to get to essential services like healthcare is to drive a car, if you have one. Likewise, in some communities, the grocery store sits across a busy five-lane road with little attention to the needs of pedestrians wishing to cross. This lack of attention to how we build the infrastructure of our communities often translates into neighborhoods that lack bicycle trails, parks and are located far away from essential services of daily living.

A healthy community is one that promotes healthy people by ensuring access to safe and nutritious foods, safe places to walk, run or bike; clean air and water; adequate and accessible health care systems and other amenities. Douglas County would benefit from a commitment to build a comprehensive transportation network that serves our need to get people from one place to another safely, efficiently and economically, all while enhancing the health of Douglas County residents. The Douglas County Comprehensive Plan can include policies and recommendations to move us in that direction.

The stakeholders that participated in the work group expressed concern over a number of different issues related to safety and transportation, including access to bicycling as a mode of transportation, connectivity of amenities and generally unsafe roadways for both motor vehicles and pedestrians. In order to address these issues, the following indicators were selected:

- Health Indicator #10 - Are there policies/plans aimed at supporting cycling and walking?
- Health Indicator #11 - Map traffic accidents and severity rates.
- Health Indicator #12 - Are complete street, shared street, and traffic-calming concepts incorporated in the future land use plan?

SAFETY & TRANSPORTATION - HEALTH INDICATORS

Health Indicator #10 – Are there policies aimed at supporting cycling and walking?

Statements and policies are both made in the Douglas County Parks and Open Space Plan and The Transportation Plan that address safety issues pertaining to cycling and walking. Recurring statements and phrases include stressing the importance of safe connections and linkages between services, as well as multi-modal transportation options.

SUPPORTING LANGUAGE AND POLICY STATEMENTS THAT ADDRESSES HEALTH INDICATOR #10

- Parks and Open Spaces (Page 24) – Trails, Goal 1: To provide county residents with a countywide interconnected trail system and access to regional trails.
- Parks and Open Spaces (Page 24) – Trails, Goal 2: To provide county residents with alternative multi-modal transportation opportunities that will integrate Active Living Douglas County mission and vision statements and strategies into physical recreational infrastructure.
- Parks and Open Spaces (Page 24) – Trails, Policy 1: Expand or develop countywide trail connections and provide linkages between county parks and to the Central Lakes Trail.
- Parks and Open Spaces Plan (Page 24) – Trails, Policy 2: Whenever physically and economically feasible, acquire utility, roadway and railroad right-of-way easements that allow construction of future trails.
- Parks and Open Spaces (Page 24) – Trails, Policy 3: Mark all trails with directional, informational, and safety signs.
- Transportation Plan (Page 32) 3.11 – Statement: Transit, bicycles, and pedestrian facilities must be planned, supported, and enhanced in the future to assist in reducing single occupant vehicles placing a high travel demand on the roadway system. It is envisioned that the multimodal system in Douglas County will develop through cooperation, coordination, and in partnership with the state, cities, townships, as well as private partnerships. The expansion of these facilities will also assist in promoting Active Living principles into the daily lives of County residents.
- Transportation Plan (Page 32) 3.11 – Statement: The goal of active living principles is to encourage real changes in design, transportation, and policies to create and promote environments that make it safe and convenient for people of all ages to be more physically active.
- Transportation Plan (Page 32-33) 3.11 – Statement: Two basic needs for improving bicycling/pedestrian facilities for all purposes are: The needs for continuous facilities that connect important origin and destination points. This includes removing physical barriers and ensuring system continuity is maintained across political boundaries; and the need to provide facilities with increased safety for the user. A trail/sidewalk system can

serve some commuter transportation demand, however those facilities typically service recreational needs. The development of sidewalks will primarily be a local responsibility for the communities with some opportunities to partner with Douglas County.

- Transportation Plan (Page 33) 3.11 – Statement: The County should establish a trail system that connects higher density developed areas (cities) to County Parks, Wildlife Management Areas, and other public lands or regional amenities.
- Transportation Plan (Page 36) Goal 4 Objectives – Provide a network of interconnected pedestrian/bicycle facilities that provides connections among communities, to residential neighborhoods, and commercial developments.
- Transportation Plan (Page 36) Goal 4 Policy 1 – Work with the other local units of governments to identify and construct pedestrian/bicycle connections that are efficient and safe for all users.
- Transportation Plan (Page 36) Goal 4 Policy 2 – Consider the appropriate level of incorporating Active Living principles in all transportation projects.

HEALTH INDICATOR #10 - RECOMMENDATIONS

Additional language for consideration:

- There is no additional language for consideration.

Policy statements for consideration:

- There are no recommendations for consideration.

Health Indicator #11 – Map motor vehicle crashes and severity rates.

Traffic injuries and fatalities (from motor vehicle crashes as well as bike and pedestrian accidents) are a significant public health problem. The amount of time people spend on the road, and the number of drivers, has increased dramatically over the years. People drive longer distances, resulting in a higher likelihood of a traffic incident simply because more people are on the roads. The way that roads and highways have been designed and built for the past 60 years also contributes to traffic safety concerns. Roads and highways are often designed and built to increase and accommodate the demand for transport. Roadways are designed for fast and easy travel with multiple lanes, little sidewalks and distant or minimal crosswalks. Safety is of particular concern in rural areas where speeds are regularly in excess of 50 miles per hour.

According to American Society of Civil Engineers (ASCE) 41,059 people were killed in motor vehicle crashes and 2,491,000 were injured in 2007. In turn, motor vehicle crashes cost the U.S. \$230 billion per year, which equates to \$819 for each resident in medical costs, lost productivity, travel delays, workplace costs, insurance costs, and legal costs.

A map of motor vehicle crashes and severity rates in Douglas County was created for the Douglas County Comprehensive Plan and is located in the Transportation Plan.

SUPPORTING LANGUAGE AND POLICY STATEMENTS THAT ADDRESSES HEALTH INDICATOR #11

- Transportation Plan (Page 90) – Crash Data Figure

HEALTH INDICATOR #11 - RECOMMENDATIONS

Additional language for consideration:

- Evaluate crash data to determine if there were any conflicts with pedestrians or bicyclists.

Policy statements for consideration:

- The County will continue to monitor crash data as it becomes available to assess potential areas of concern that may warrant roadway improvements or mitigation measures.
- See additional recommendations under Health Indicator #12.

Health Indicator #12 – Are complete street, shared street and traffic-calming concepts incorporated in the future land use plan?

The Douglas County Transportation Plan includes very little reference to complete streets, shared streets or traffic calming concepts. Complete streets are discussed in further detail under health indicator #8. Health indicator #12 primarily focuses on traffic calming concepts. The Institute of Transportation Engineers (ITE) defines traffic calming as measures that involve changes in street alignment, installation of barriers, and other physical measures to reduce traffic speeds and/or cut-through volumes, in the interest of street safety, livability, and other public purposes. According to the Federal Highway Administrator (FHWA), the general objectives of traffic calming include:

- To encourage citizen involvement in the traffic calming process by incorporating the preferences and requirements of the citizens
- To reduce vehicular speeds
- To promote safe and pleasant conditions for motorists, bicyclists, pedestrians, and residents
- To improve the environment and livability of neighborhood streets
- To improve real and perceived safety for non-motorized users of the streets
- To discourage use of residential streets by non-citizens cutting through

Traffic calming techniques may include the following applications:

- Bike Lanes
- Medians/Barriers
- Bump Outs
- Center Islands
- Speed Humps
- Roundabouts
- Raised Crossings
- Landscaping
- Striping
- Signage
- Police Enforcements

The nature of a rural community is that roadways, in many instances, have posted speeds upwards of 55 miles per hour and are designed to move motor vehicles in a quick and efficient fashion. Therefore, applying traffic calming measures to County Roads may not be appropriate in all instances. However, the County should consider complete streets and traffic calming measures as part of their design review process. General statements are made throughout the

Comprehensive Plan to integrate safety features into pedestrian and bicycle improvements where applicable.

SUPPORTING LANGUAGE AND POLICY STATEMENTS THAT ADDRESSES HEALTH INDICATOR #12

- Transportation Plan (Pages 34) – Goal 2, Objective B: Identify system deficiencies by examining trend data, including safety (crashed), forecast traffic volumes (capacity), and accessibility (mobility).
- Transportation Plan (Pages 34) – Goal 2, Policy 1: The County will encourage the study of reasonable traffic management techniques where documented safety issues exist.
- Transportation Plan (Pages 34) – Goal 2, Policy 2: The County will monitor crash statistics for trends and tailor crash reduction improvements for targeted areas.
- Transportation Plan (Pages 34) – Goal 2, Policy 5: Where applicable, the County will integrate safety features into pedestrian/bicycle improvements, especially within municipalities.
- Transportation Plan (Pages 34) – Goal 2, Policy 6: The County’s land use development standards will promote safe and efficient access to the transportation system. Require new development to provide an adequate system of local streets while limiting direct access to thoroughfares (e.g. TH 27, TH 29) in order to maintain safe and efficient operations on these roadways.
- Land Use Plan (Page 8) – Integrate Active Living Douglas County principles into existing and future development.

HEALTH INDICATOR #12 - RECOMMENDATIONS

Additional language for consideration:

- Provide language that recognizes traffic calming concepts.

Policy statements for consideration:

- The County will consider traffic calming concepts as part of future roadway improvements.

RECOMMENDATION SUMMARY

After reviewing the 12 health indicators, MDH encourages Douglas County to incorporate the following recommendations into the Douglas County Comprehensive Plan. Implementing these recommendations ensures that Douglas County is planning for many important aspects of health.

AGING POPULATION

- **Health Indicator #1**-Mapping demographic data using the most recent census data available (preferably mapping the information by census block for age 40 and over).
- **Health Indicator #2**- Map the location of senior services (i.e., hospitals, healthcare facilities, churches, grocery stores, shopping malls and community centers) and life-cycle housing (i.e. town homes, senior housing, apartments, and rental units).

Additional language for consideration:

- Recognize the aging population throughout the Comprehensive Plan by addressing issues related to the shift in demographics.
- The County will consider future data sources, such as the 2010 Census to better inform planning decisions.
- Consider highlighting County programs that provide services to seniors and how those services will continue to meet an aging population.
- Discuss transportation issues associated with rural parts of the community that may not have appropriate access to senior services, health care facilities, hospitals or areas that may require a longer emergency response time.

Policy statements for consideration:

- Improve transportation options for elders by identifying barriers, gaps, and assets and by implementing collaborative efforts at local, regional and state levels.
- Support local and regional task forces to assess and address transportation issues and include health care providers in the effort.
- Support public, private, and volunteer partners to coordinate local transportation options.
- The County will work with local and regional transit authorities to identify services that can accommodate seniors in rural parts of the county.

SOCIAL CAPITAL

- **Health Indicator #3** - Does the plan link existing and future housing development with employment and services?
- **Health Indicator #4** - Are there polices in place to maintain and increase recreational amenities (i.e., parks, open space and recreational facilities)?
- **Health Indicator #5** - Are there polices that require that all developments have views of greenery for mental health benefits?
- **Health Indicator #6** - Does the plan promote economic opportunities for low income and underemployed or insecurely employed individuals?

Additional language for consideration:

- Discuss the County's housing needs and how it may be addressed at the County level.
- Define what active living means to the County.
- Explain the County's Active Living by Design Principles.
- Explain health benefits of trees, parks and open spaces.
- Provide language that discusses the County's economic competitiveness within the region and state.
- Discuss programs or incentives available for attracting new businesses and industries.

Policy statement for consideration:

- Partner with local housing agencies to assist in the development of affordable housing that is within close proximity to employment centers and services.
- Encourage a balanced housing stock that meets the needs of all income levels, age groups and lifestyles within the County.
- Encourage different types of housing options within different socio-economic communities.
- The HIA recommends that the County develop a master plan with details on implementing a regional parks and recreation system and active living principles.
- Adopt Active Living Principles provided by Active Living Research.
- Encourage economic growth to bring wealth to the region by sustaining a high quality of life and maintaining the County's economic competitiveness.
- The County will work with local jurisdictions and businesses to create a stronger business climate for attracting new business and industries.

ACCESS TO PLACES

- **Health Indicator #7** - Map large recreational facilities, large community gardens, schools, large parks and open spaces.
- **Health Indicator #8** - Map trails and dedicated bicycle lanes and compare their location to residential uses.
- **Health Indicator #9** - Does the plan allow for clustering of different activities together?

Additional language for consideration:

- Provide language that recognizes “Complete Streets.”
- Provide a trail map that highlights County bike routes and major destinations.

Policy statements for consideration:

- Consider depicting the location of schools, services, residential areas, commercial areas and other recreational facilities/community gathering centers on the existing parks and trails map. (May be revised by Dave Rush to reflect an inter-governmental cooperation policy).
- The County will explore a complete streets policy.
- Roadway projects will consider the needs of all users, including motorists, pedestrians, bicyclists, transit users, vehicles and emergency vehicles.
- The HIA recommends that the County develop a master plan with details on implementing a regional trail/bike network that connects major destinations.

SAFETY & TRANSPORTATION

- **Health Indicator #10** - Are there polices/plans aimed at supporting cycling and walking?
- **Health Indicator #11** - Map traffic accidents and severity rates.
- **Health Indicator #12** - Are complete streets, shared streets, and traffic-calming concepts incorporated in the future land use plan?

Additional language for consideration:

- Evaluate crash data to determine if there were any conflicts with pedestrians or bicyclists.
- Provide language that recognizes traffic calming concepts.

Policy statements for consideration:

- The County will continue to monitor crash data as it becomes available to assess potential areas of concern that may warrant roadway improvements or mitigation measures.
- The County will consider traffic calming concepts as part of future roadway improvements.
- See additional recommendations under Health Indicator #12.

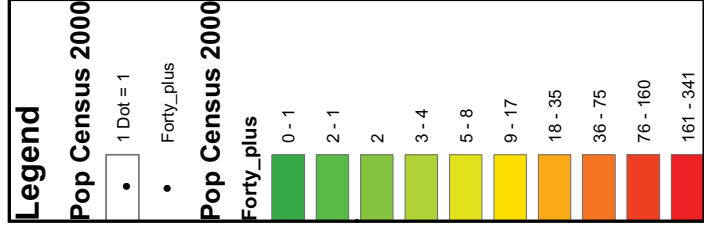
FIGURES

Figure 1 - 2000 Census: 40 Years or Older by Census Block

Figure 2 - Existing Community Services

Figure 3 - Access to Health Care Facilities

Douglas County 2000 Census Population



Data from
<http://www.census.gov/geo/www/tiger/>
2000

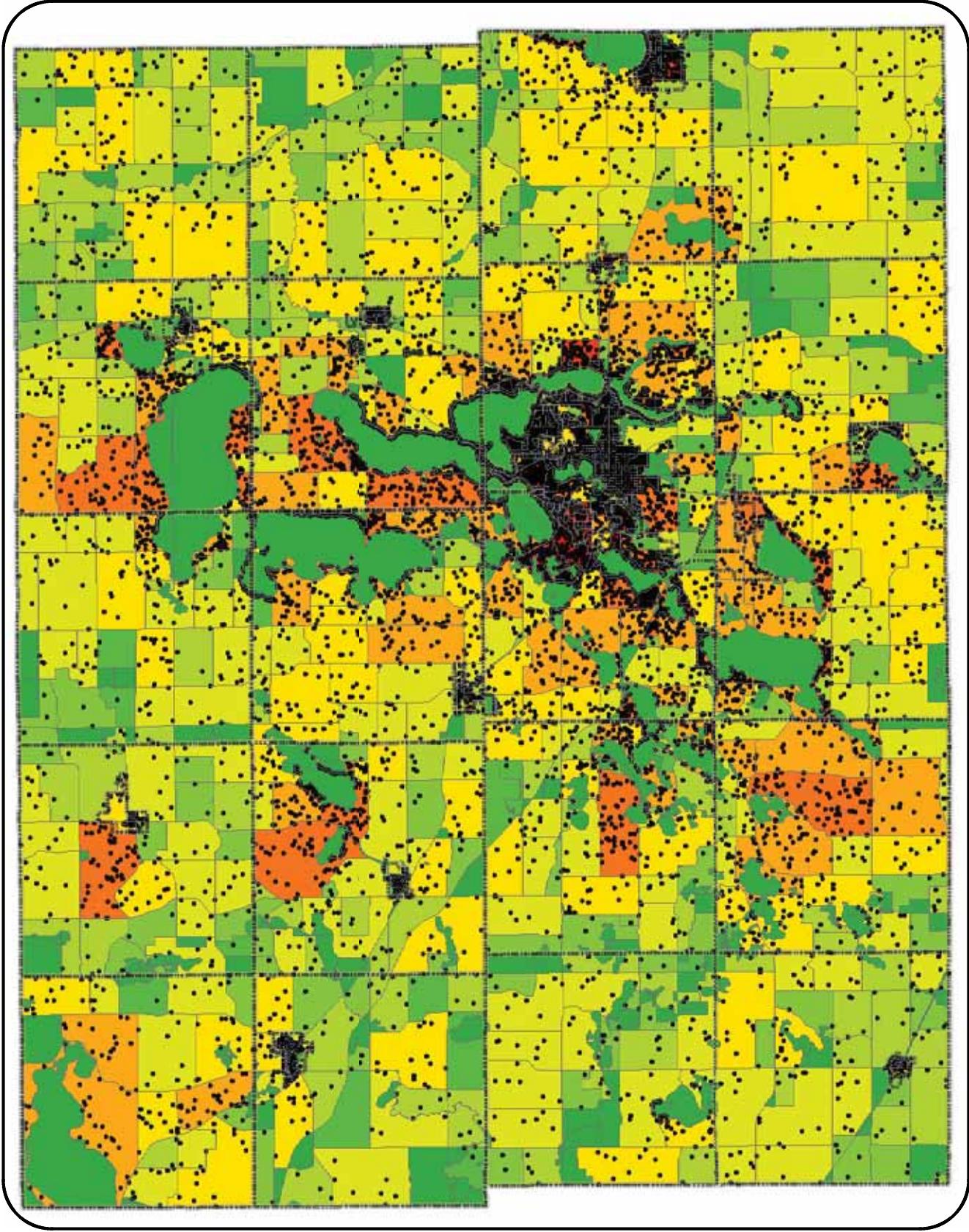


Figure 1 - 2000 Census: 40 Years or Older by Census Block

Existing Community Services

(Aging in Place)

1 service

2 services

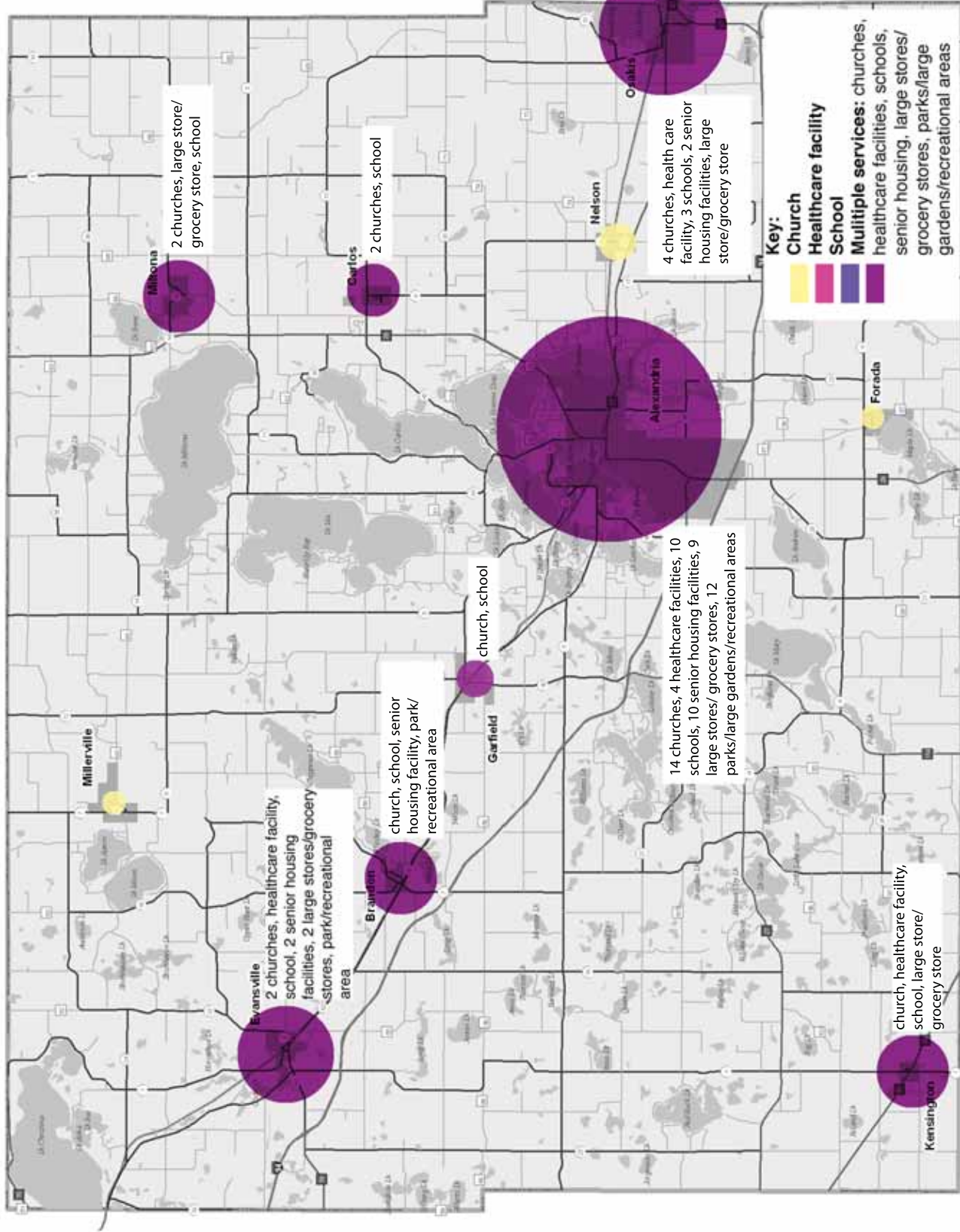
3 services

4-6 services

7-10 services

11-20 services

Over 50 services



Note: This map identifies larger facilities and services and may not include all the churches, stores, etc. found in Douglas County. This map should be updated as additional information becomes available.

Figure 2 - Existing Community Services

Access to Healthcare Facilities

(Aging in Place)

The gray areas represent a 5-mile radius around jurisdictions with existing healthcare facilities.

The pink area, defined by the dashed pink lines, represents potential area of healthcare service gaps.

The further a person lives from a healthcare facility the more time it takes to get to a facility in an emergency.

Note that the only hospital in Douglas County is in the City of Alexandria.

H - Hospital

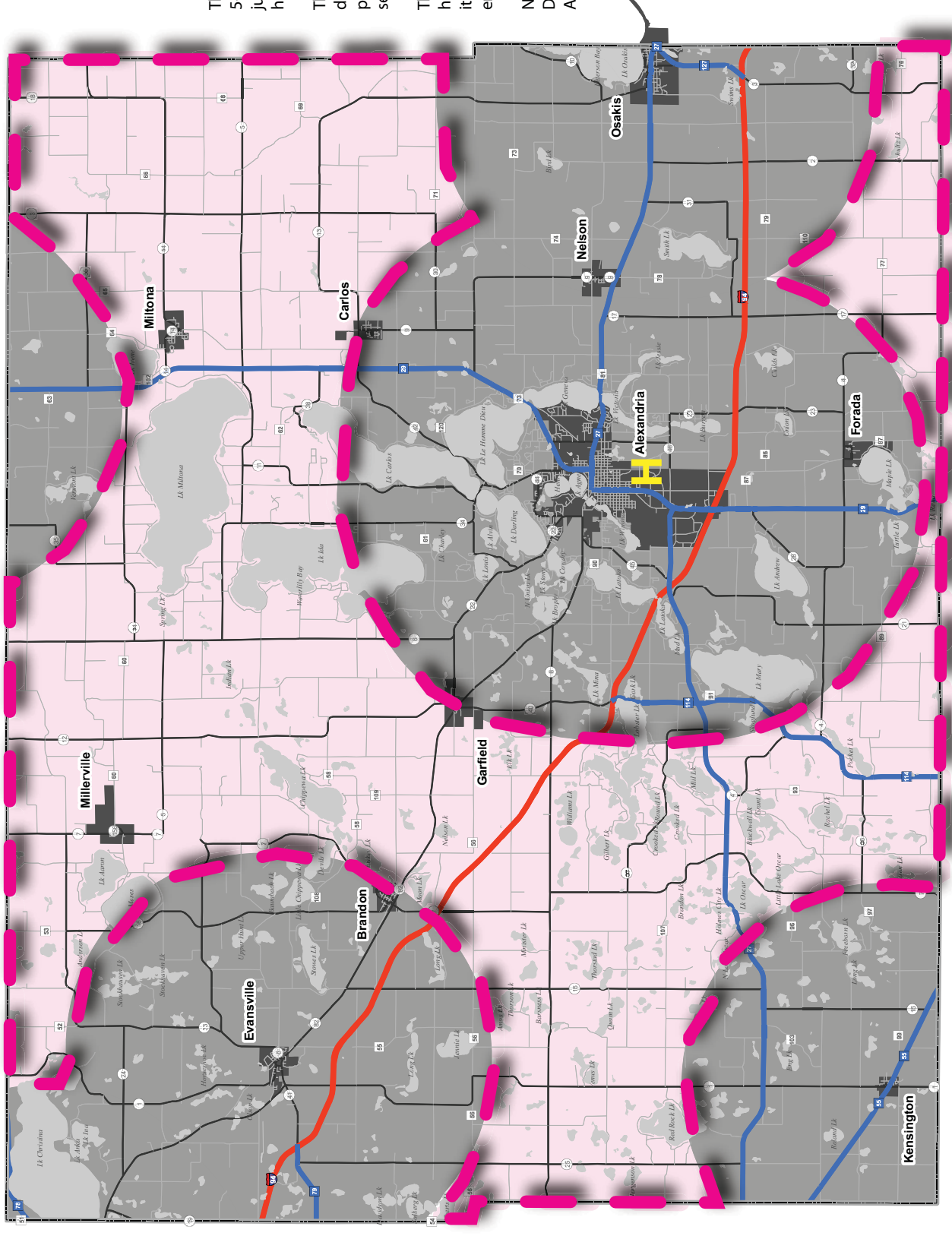


Figure 3 - Access to Health Care Facilities