

PREPARING FOR THE "SILVER TSUNAMI": GRAND FORKS ANALYZES
RECREATIONAL OPPORTUNITIES AND CHALLENGES FOR AN AGING BABY
BOOMER GENERATION

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Preparing for the “Silver Tsunami”-Grand Forks analyzes recreational

opportunities and challenges for an aging baby boomer generation

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ABSTRACT

Iseminger, Colette Kim, M.S., Department of Human Development and Family Science, College of Human Development and Education, North Dakota State University, October, 2010. Preparing for the "Silver Tsunami": Grand Forks Analyzes Recreational Opportunities and Challenges for an Aging Baby Boomer Generation. Major Professor: Dr. Gregory F. Sanders.

The purpose of this study was to explore differences in the recreation areas of lifelong learning, intergenerational programs, fitness and exercise, art and culture programs, and the ability to stay up-to-date with technology between the current senior citizen generations and the aging baby boomer generation. Survey questionnaires were administered to 49 respondents of the baby boomer generation and 66 respondents of the current senior citizen generations. Results of the survey showed a strong negative correlation between age and the person's self-proclaimed need for the recreation areas studied. The baby boomers of Grand Forks, for the most part, are similar to the national cohort in their wants and needs in these five recreation areas.

ACKNOWLEDGEMENTS

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Thank you to the Board of Directors and staff of the Greater Grand Forks Senior Citizens Association for their support of this project. Thank you to Li Cao and the NDSU Statistical Consulting Service for their help in the data analysis. Finally, I would like to thank my husband, Carl, and my family for their support, love and encouragement as “mom” went back to school.

DEDICATION

This study is dedicated to the current and future older adults of Grand Forks, North Dakota. It is my hope that their quality of life can be improved and their wishes incorporated into the Greater Grand Forks Senior Citizens' and the City of Grand Forks' planning for the future recreation needs of older adults in our community. It is my goal that not only is our community a great place to raise children but a great place to retire and grow old.

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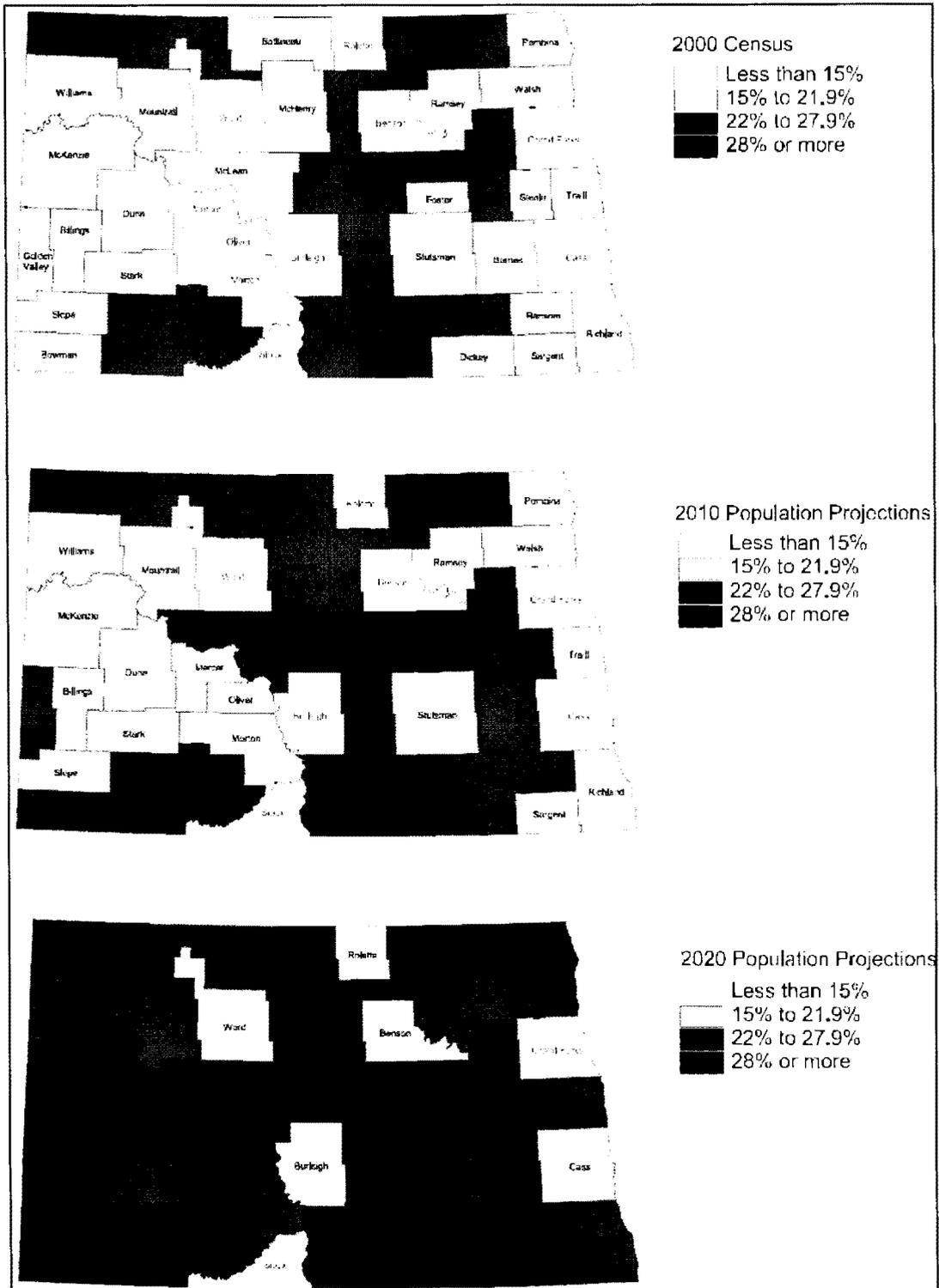
CHAPTER 1

INTRODUCTION

America and its communities, including the city of Grand Forks, in northeastern North Dakota, are aging and aging rapidly. The Baby Boomer generation, born between 1946 and 1964, is reaching retirement age (Rathge, 2007). Such demographics will increase the number of Americans over the age of 65 to 71.5 million by 2030 (National Association of Area Agencies on Aging & MetLife Foundation, 2007). For North Dakota, one third of the total population is part of the baby boomer generation (Rathge, 2007).

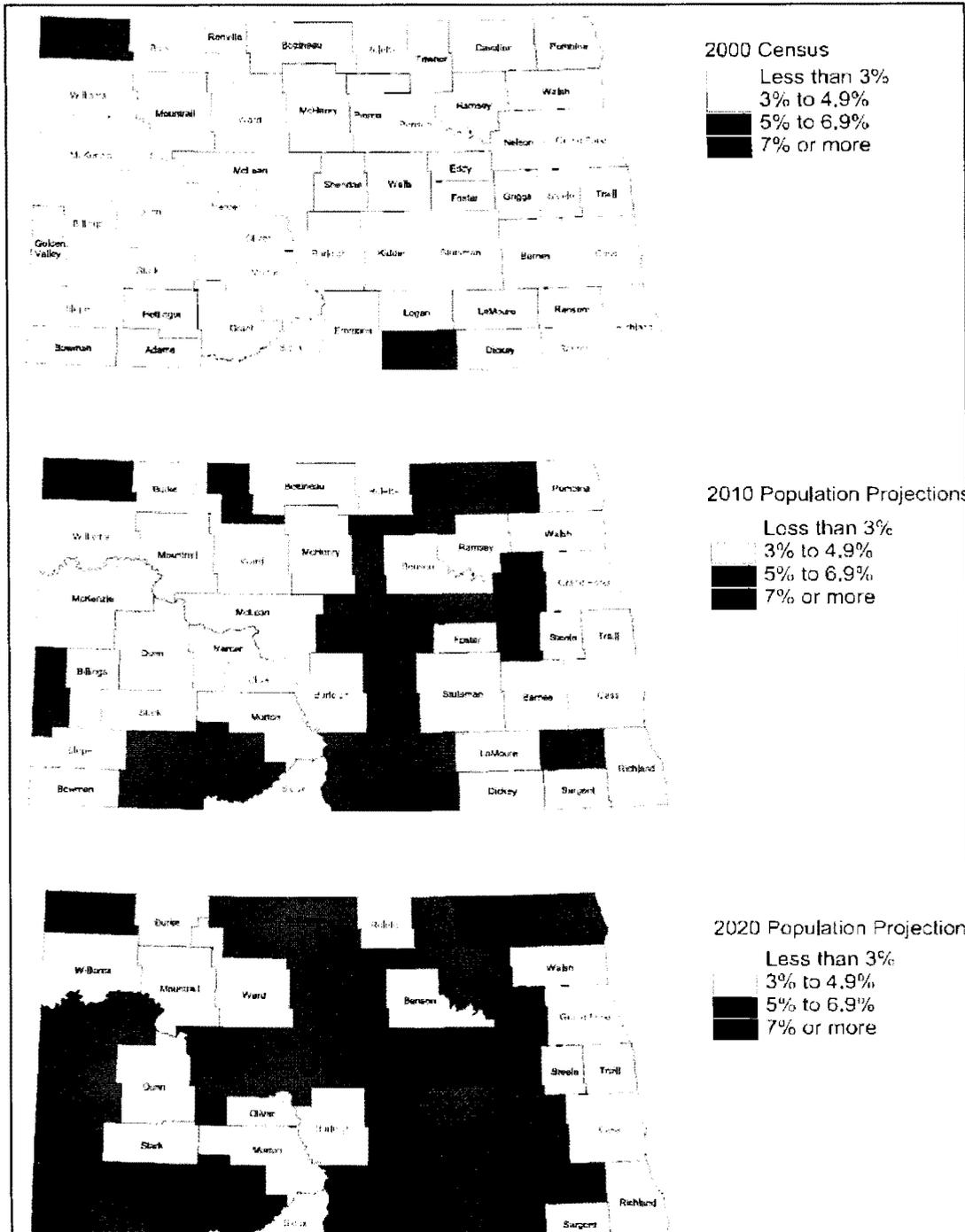
Figure 1 shows that the number of counties in North Dakota with 28% or more of their population over age 65 will grow from two in 2000 to 35 by 2020 (Rathge, 2007). Whereas Grand Forks County defies this trend, staying under 15% of the population over the age of 65, there are still currently over 7000 people in the county over the age of 65 (Rathge, 2007). The fastest growing segment of America's population is people over the age of 85 and North Dakota is no different in this aspect. North Dakota already leads the nation per capita in the percentage of the population over the age of 85 (Rathge, 2007). Figure 2 emphasizes the over 85 age demographics for the state of North Dakota. This data is important because this group is the most likely to need the support of family, friends and the community to remain living independently (National Association of Area Agencies on Aging & MetLife Foundation, 2007). In Grand Forks County, the population over the age of 65 is expected to grow 50% from 2000 to 2020. However, as Table 1 shows, the population over the age of 85 is expected to grow 68% in the

Figure 1. Persons Ages 65 and Older as a Percent of the Total Population in North Dakota by County 2000, 2010, and 2020



Source: U.S. Census Bureau, 2000 Census; North Dakota State Data Center.

Figure 2. Persons Ages 85 and Older as a Percent of the Total Population in North Dakota by County 2000, 2010, and 2020



Source: U.S. Census Bureau, 2000 Census; North Dakota State Data Center.

Table 1.

*Projections of Population Age 65 and Older in Grand Forks County:
2000, 2010, and 2020*

Grand Forks County	Total Population	Persons 65 and Older							
		Ages 65-74		Ages 75-84		Ages 85+			
		Total	Percent of Total Population	Number	Percent of Total Population	Number	Percent of Total Population	Number	Percent of Total Population
2000	66,109	6,368	9.6	3120	4.7	2315	3.5	933	1.4
2010	67,551	7266	10.8	3220	4.8	2772	4.1	1274	1.9
2020	68238	9582	14	4879	7.1	3131	4.6	1572	2.3

Sources: United States Census Bureau and North Dakota State Data Center

same time period. Some 65-84 year-old residents retire and leave Grand Forks and its brutal winters, only to return when they are in need of services in later life (Rathge, 2007). There is also a shift in population from the sparse rural areas to urban areas, such as Grand Forks, when older adults need services (Rathge, 2007).

Statement of the Problem

The vast majority of older adults want to age in place in their homes and communities for as long as possible (Leitch, 2009; Lehning, Scharlach & Dal Santo, 2010; National Association of Area Agencies on Aging & MetLife Foundation, 2007; Scharlach, 2008; Scharlach, 2009). The aging of the baby boomer population will pose new challenges for the delivery of local services such as health care, recreation, housing, transportation, public safety, employment, and education. While these services assist a broad segment of the population, they also have a major impact on the quality of life for older adults. The aging of our nation's communities will also present opportunities due to the education and skill

level of the baby boomer population. The city of Grand Forks would like to entice those older adults to retire in the city and put their skill and education to work for the benefit of the community and its residents.

The city of Grand Forks, North Dakota, is known as a youth friendly community. America's Promise, a group dedicated to improving the lives of youth, has named Grand Forks one of the "100 Best Communities for Young People" ("Youth Friendly Grand Forks," 2008). While Grand Forks may be recognized as youth friendly, it is not recognized as an aging-friendly community.

The aging of the population is one of the community's greatest challenges to face in the coming years. Baby boomers have produced massive social change throughout their lives, and it is expected that this group's independent, nontraditional attitude will continue as they age (Githens, 2007). As a community, the city needs to seriously consider the needs and the expectations of this aging population and carefully weigh whether the community can meet those needs. The city of Grand Forks, partnering with the Grand Forks Senior Center, wanted to determine their community's readiness for an increasing aging population, by examining the ability to provide programs, policies, and services that address the needs of older adults, and look at opportunities to retain this aging population. The entire survey was focused on the community's aging-readiness in the areas of transportation and infrastructure; housing; health, nutrition, and supportive services; recreation; employment and civic engagement; taxation and finance; and public safety. The results of this survey will provide a foundation for recommendations on how to best prepare Grand Forks for the aging baby boomer

population. While all areas are important for the successful aging of the baby boomer generation, Grand Forks is particularly interested in the recreation area as they plan for a new wellness center with a connected senior center in the community. The current plan to integrate a senior center, wellness facility, child and adult daycare, health services, art programs, and health research into one facility is a large project and required extensive research. Also, due to the desire to keep community seniors healthy, active, and residing in the community, the results of the recreation area are important to agencies and their plans for the future of Grand Forks. For this reason, this research paper will focus on the results of only some areas of the research.

Research question. What is the perception of adults in Grand Forks of the recreation opportunities for older adults?

Hypothesis. Perceptions of future aging experiences in the area of recreation will be significantly related to the demographic variables of gender, age, race, number of community organizations in which the respondent participates, marital status, income, and education level.

CHAPTER 2

REVIEW OF LITERATURE

The review of the literature will include two areas: 1) general research that has been conducted on the aging of the baby boomer population and preparation that will be needed by communities; and 2) specific research in the recreation areas of lifelong learning and education; technology upgrades; fitness and exercise; art and culture; and intergenerational activities. The literature review will include how these areas will be affected by the aging baby boomer population and changes that have been proposed to meet their needs and wants.

Aging Baby Boomers

A myriad of research has taken place in the last five years in preparation for the aging baby boomer population. Such a major shift in the age of our nation's population has never happened before and policymakers and stakeholders in the United States and around the world are preparing for both the opportunities and challenges that come with this dramatic change (National Association of Area Agencies on Aging, MetLife Foundation, International City/County Management Association, National Association of Counties, National League of Cities & Partners for Livable Communities, 2007). Areas of research have included a variety of ideas.

The first idea is the ability to age in place (National Association of Area Agencies on Aging et al., 2007). Older adulthood can span several decades. Within these aging years, great changes take place based on not only chronological age but also mental, physical, and emotional health (Githens, 2007).

Three common phases are noted in research: 1) continuing the same lifestyle as in middle age, 2) revising lifestyles to accommodate changes that are occurring in their life, and 3) becoming dependent on others for some level of care (Fisher & Wolf, 2000). These phases are not necessarily linear and individuals may cycle through different phases at different times during their older adulthood. For example, individuals may be dependent during an illness or surgery recovery, but return to their previous lifestyle once fully recovered. Through all these phases, the individual's wish is to remain in their home setting as much as possible (Beedon, Southworth, & Gist, 2006; Gibson, Freiman, Gregory, Kassner, Kochera, Mullen, et al, 2003; National Association of Area Agencies on Aging and MetLife Foundation, 2007; National Association of Area Agencies on Aging et al., 2007; Partners for Livable Communities, 2005; Redfoot & Pandya, 2002; Wallman, 2004, Wallman, 2008; Zentner, 2008). Place attachment, a person's emotional connection to a particular location, such as a home, may be more important to older adults and can contribute to a perception of independence and a positive self-image (Lehning et al., 2010).

Eighty-nine percent of baby boomers claim they want to grow old in their own home. However, many American communities cannot support appropriate housing, social services, and transportation needs for seniors living in their own homes (Partners of Livable Communities, 2005). The barriers to aging in place are numerous and have been the focus of many research projects. Barrier research has found a lack of affordable and appropriate housing options; few opportunities for walking, bicycling, or other forms of physical activity, inadequate mobility

options; limited information about available health and supportive services in the community; concerns about the safety and security of the community; and limited opportunities for meaningful, challenging volunteer service (National Association of Area Agencies on Aging & MetLife Foundation, 2007).

The second idea to emerge in the research is a lack of preparedness by communities for the aging of this cohort (National Association of Area Agencies on Aging and MetLife Foundation, 2007; National Association of Area Agencies on Aging et al., 2007). The lack of planning by communities for the upcoming aging of the baby boomers came out of a study by Maturing of America partners (National Association of Area Agencies on Aging et al., 2007). Survey results found that only 46% of American communities had begun to address the needs of this rapidly aging population.

The next idea is recognizing that environmental factors play critical roles in either facilitating or undermining the ability to remain independent as a person ages (Minnesota Department of Human Services, 2007; National Association of Area Agencies on Aging et al., 2007). Survey findings indicate that local governments may offer basic health and nutrition services, but do not have the policies, programs, and services in place to promote the quality of life and the ability of older adults to live independently and continue to contribute to their communities (National Association of Area Agencies on Aging et al., 2007). These services might include additional transit services, home modifications, senior-friendly housing, fitness options, and roadway redesign. Cities often must realize that needs of older adults may be interrelated (Burkhardt, 2005; Eldercare Locator,

2007; National Association of Area Agencies on Aging et al., 2007). For example, providing adequate housing will not be sufficient if residents lack transportation to get to basic services such as a grocery store or a pharmacy (Beverly Foundation & American Public Transportation Association, 2007).

An independent living philosophy was elaborated and supported in a report from AARP (Gibson et al., 2003). This philosophy was based on an area of research that sees aging and disability not as an individual characteristic or problem but as a relationship between the individual and the entire environment in which they live. Judith E. Heumann (co-founder, World Institute on Disability) stated “Independent living is not doing things by yourself, it is being in control of how things are done” (Gibson et al., 2003, pp.6). The environment included everything from physical surroundings to family networks to quality of health and long-term supportive services and the federal and state policies that address these issues.

The fourth idea was the need to create livable communities for people of all ages (Markwood, 2008; National Association of Area Agencies on Aging and MetLife Foundation, 2007; National Association of Area Agencies on Aging et al., 2007; Partners for Livable Communities, 2005; Scharlach, 2008). Livable communities incorporate elements needed to provide the physical, social, and service supports needed by their residents of all ages and abilities (Minnesota Department of Human Services, 2007). Another area of research was a need for collaborations in order to create livable communities for people of all ages. It was recommended that every area of local government has a role to play. Each day,

decisions affecting residents' ability to age successfully in their communities are made by housing officials, transportation planners, planning and zoning specialists, parks and recreation officials, and economic development leaders. Recognition of the impact that an aging population will have on a community will enable these diverse departments to hone their planning and identify new opportunities. To successfully create livable communities for all age groups requires partnerships and input from agencies, older adults themselves and many other different sectors within communities (National Association of Area Agencies on Aging & MetLife Foundation, 2007).

The final idea was a changing notion of what retirement will be for this generation (Githens, 2007). The modern concept of retirement originated in the Industrial Revolution and the start of Social Security (Dychtwald, 2005). As life expectancies have grown in years, the number of years in retirement has expanded dramatically. For the baby boomer generation, retirement may be an outdated concept (Githens, 2007). The need for the financial and social benefits of continuing employment plus the declining number of available experienced workers may entice older adults to continue working much later in their lives (Butrica, Schaner, & Zedlewski, 2006; Githens, 2007; Johnson, 2007; Penner, 2005). Research found that as many as 80% of baby boomers plan to be "working retirees" (Dychtwald, 2005; Stenerle & Carasso, 2001).

Recreation

The baby boomers' devotion to recreation has evolved the recreation and leisure industry and will continue to do so as this group ages. Research in the

recreation area shows a need to cater to the aging population as a “one size fits all” approach will not satisfy the aging boomer population. Programs will need to customize the recreation experience to cater to their need for self-fulfillment, healthy pleasure, nostalgic youthfulness, and individual escapes (Ziegler, 2002). By looking at what recreation needs are for the future, Grand Forks is looking to fill this recreation niche for this generation. This research paper will look at recreation areas of lifelong learning, fitness and exercise, technology, intergenerational, and art and cultural programs.

Lifelong Learning

Several writers have noted that boomers had, in general, a high education level and that lifelong learning will continue to be of interest to baby boomers as they age (Partners for Livable Communities, 2005; Pulte Homes, Inc., 2007; Ziegler, 2002). In order to fulfill their educational, social, and recreational needs, boomers often choose to participate in lifelong learning opportunities such as the Osher Lifelong Learning Institute, Third Age Universities, and Elderhostel Institutes. Typically these programs are for personal growth and development and are not connected to workplace development (Osher Lifelong Learning Institute, 2007; Sherman, 2006; Zins, 2008).

A wide body of literature has illustrated the mental and physical benefits of older adult education (Githens, 2007). A study by Richeson, Boyne and Brady (2007) suggested that education programs have the potential to enhance the cognitive lives of older adults with early dementia. In addition to the positive cognitive benefits from education, the maintenance of social networks was vital to

mental health. Due to the death of family and friends and the increased inability to drive, older adults may have more difficulty in maintaining these social networks. Online learning and social communication tools have been found to increase the ability of the older adult to engage in educational and social networks, even when mobility was an issue (Githens, 2007).

Programs such as Osher Lifelong Learning Institute provide a college based environment in which older adults can continue to learn in an enjoyable and meaningful manner. Promotional materials emphasize the positive social aspect of “spending time with like-minded individuals” (Osher Lifelong Learning Institute, 2007). Other research examined how institutions can more effectively respond to the factors that drive older adults to postsecondary education, including their desire to learn, connect, and work. Because older adults will make up one-third of the nation’s population by the year 2030, colleges and universities will be looking at this research for ways to increase the participation of older adults as students (MetLife Foundation, 2009).

The concept of the Third Age University was started in France in 1973, and life was viewed in four phases: Educational, Professional, Retirement (Third Age), and Dependency (Zins, 2008). While the concept of retirement and aging was noted to be changing with the younger generation of seniors, the goal of the Third Age University remained the same--promoting adult learning through classroom and experiential offerings. The Third Age University has encouraged older adults to remain active by fulfilling personal accomplishments of learning and leadership contributions while expanding their horizons (Zins, 2008).

Founded in 1975, Elderhostel or Learning Adventures began as an effort to provide late-life learning opportunities by using low-cost summer dormitories at colleges and universities. Studies have found that participants in the programs were motivated to learn in order to achieve a sense of personal control or mastery (Sherman, 2006). Six distinct types of Elderhostel's exist: activity-oriented, geographical guru, experimenter, adventurer, content-committed, and opportunist (Sherman, 2006). The combination of continued learning, adventure, and travel was a draw for many older adults. The organization has been compared to a vast travel agency for older-adult learning and is a model that is likely to expand as the baby boomers age (Sherman, 2006).

Exercise and Fitness

Exercise is and will continue to be important to baby boomers. "Baby boomers started the fitness craze," said Anne Rothschild, a professor in Springfield College's (Mass.) Department of Sports Management and Recreation. "They're not going to go into aging the way other generations have. They will not stand for being treated like the others" (St. Clair, 2008). Avoiding disease and disability, and maintaining mental and physical function have been the cornerstones of the baby boomer fitness movement (Nakasato & Carnes, 2006). Many older adults have related successful aging with good physical health maintained with regular exercise throughout their life, even the later years (Ferri, James, & Pruchno, 2009; Kahana, Kahana & Kercher, 2003; Phelan, Anderson, LaCroix, & Larson, 2004; Riebe et al., 2009).

Regular exercise in older adults has been shown to have multiple benefits. Physical activity enhances quality of life in older adults (Fitzpatrick et al., 2008; White, Wojcicki, & McAuley, 2009). Researchers have suggested that one key strategy for helping older adults live with chronic health conditions was regular exercise (Loeb, Penrod, Falkenstern, Gueldner, & Poon, 2003). Research has shown that regular exercise can also have a positive effect on the aging immune system (Senchina, 2009). Increased cardio respiratory fitness was associated with reduced brain atrophy in patients with early dementia (Butler, 2009). Strength training may help older adults stay healthy and increase their muscle density, which may reduce their risk of falling (Diabetes Forecast, 2009). Physically fit older adults were more likely to have enhanced spatial memory than less active individuals, which helped people maintain their independence (Kramer, 2009). Being active also helped lower an older adult's risk of falling, developing heart disease, and diabetes which can help older adults live on their own longer (Brender, 2006).

Research has shown that more upscale fitness centers were prospering and that baby boomers preferred more individualized activities rather than group activities (Partners for Livable Communities, 2005; Pulte Homes, Inc., 2007; St. Clair, 2008; Ziegler, 2002). However, there were barriers to maintaining good fitness activities. Some of these noted barriers included the cost of activities, especially fitness center memberships; location or geographical proximity of the participant and activity; accessibility to the programs by transportation; and the health of the participant (Kahana et al., 2003).

Technology

Technology will continue to play a large role in the lives of the aging population. The internet has become a gateway to a vast array of knowledge and was expected to become a primary medium for commerce, education, and entertainment in the coming years (Beisgen & Kraitchman, 2003). Already the federal government has been using internet-based applications to administer such programs as Medicare Part D. A larger percentage of baby boomers were computer and internet users than previous generations. The Pew Internet and American Life Project found that only 22% of Americans over the age of 65 used the internet, in contrast to 58% of those age 56-64 (Fox, 2004). As those adults aged 56-64 continue to age, a much larger percentage of the older adult population will be computer literate. From computer classes to purchasing the latest gadgets, boomers will use technology and expect its use, such as frequently updated web pages, from the business community (Partners for Livable Communities, 2005; Ziegler, 2002).

A variety of barriers to older adults keeping up to date and utilizing computer and internet technology have been noted. One of the most damaging identified was a negative stereotype of older adults; that they did not want to learn new technology or that they were unable to learn (Githens, 2007). Research has shown that although older adults were not as quick to learn new technology, they are enthused and quite capable of learning (Rizzuto & Mohammed, 2005). Computer technology has provided people the opportunity to keep up with the times. Higher income has been found to be the most likely predictor of internet

use, followed by a favorable attitude towards technology (Beisgen & Kraitchman, 2003). Affordable access to training, equipment, and programs was shown to be important to helping older adults on fixed incomes with changing technology.

Because less-educated and lower income individuals were less likely to participate in adult education programs (Githen, 2007) and were also less familiar with technology (Rizzuto & Mohammed, 2005), providers will need to develop innovative solutions for reaching those individuals.

Americans 65 and older were the lowest users of the internet; only 16% compared to an over-all national average of 42% (Beisgen & Kraitchman, 2003). Technical problems have been found to be a source of frustration for older adults, especially those less comfortable with computers and were a major reason why older adults were reluctant to start computer classes (Githens, 2007). Another reason was that the current form of internet usage has relied heavily on written text. Research has shown that declines in reading comprehension in older adults, vision problems, and cognitive decline all can decrease willingness to use computers. The National Institute on Aging and the National Library of Medicine (2002) developed web site guidelines to ensure sites were friendly for older adults. Examples include using 12- or 14-point font size; avoiding patterned backgrounds; using double spaced text; and avoiding the use of yellow, blue, or green in close proximity.

Mobile devices and mobile learning present another set of challenges for older adults. The small displays and tiny keyboards present major usability issues for some older adults (Githens, 2007). As technology improves and older adult

needs are addressed, devices such as foldable larger keyboards should make these obstacles less of a concern.

Intergenerational Activities

Changes in society and the family have greatly influenced intergenerational relationships. Historically, the extended family helped maintain and support its members, families lived closer together and older adults were an important part of the family (Beisgen & Kraitchman, 2003). Over the course of the last century, America has become highly segregated by age, and family functions have been assumed by a range of age-specific institutions (Beisgen & Kraitchman, 2003). Children attend age-segregated schools; adults work in environments where there are no children or elderly adults; older adults live in age-segregated housing; and children and older persons are cared for by age-segregated services. Age segregation is marked by the geographic distance between parents', children's and grandchildren's residences and attitudes that promote social and physical separation. Segregation results in few opportunities for interaction among the generations. As a result, the old do not have relationships with the young, and the young do not understand their elders or the aging process (Beisgen & Kraitchman, 2003). The myths and stereotypes that result from the separation of the generations, in combination with shrinking resources, can cause tension between the generations. These trends suggest a need and a want for increased communication and interaction between generations (Beisgen & Kraitchman, 2003; Gerteis, Winsten, Moses, Mednoza & Roberts, 2004; National Association of Area Agencies & MetLife Foundation, 2007).

Intergenerational relations refer to any informal or formal interaction between youth and older adults. Researchers have noted that these relations were an important vehicle for linking generations and cultures, and were used to assist with social issues such as illiteracy, violence, education, social isolation, health, and wellness (Beisgen & Kraitchman, 2003; VanderVen, 2004). This support was especially important in times of diminishing economic resources for the social and educational needs of young and old alike (Jones, Herrick & York, 2004). Through intergenerational programs, people of different generations share their talents and resources to support each other in relationships that benefit the individuals and the community. Young and old learn, share experiences, practice new skills, cooperate, gain respect, and practice teamwork as they solve problems together. These programs offer many benefits to the participants, both young and old. Some benefits for young participants are developing positive social behaviors, fostering positive attitudes toward aging, unconditional acceptance and emotional support, and providing the opportunity to learn skills and wisdom from another generation (Beisgen & Kraitchman, 2003; Larkin & Newman, 2001). Older adults benefit through reduced isolation and loneliness, stimulation of the senses, improved self-esteem, and the ability to give love and time to young children which helps maintain their morale (Beisgen & Kraitchman, 2003; Griff & Lambert, 1996; Larkin & Sadler, 2005; Montoro-Rodriguez & Pinazo, 2005; Reisig & Fees, 2006).

Besides being cost-effective, communities also benefit from these intergenerational programs. These programs have facilitated community collaboration, the pooling of resources, preservation of historical and cultural

traditions, and increased community awareness of issues that affect both young and old (Beisgen & Kraitchman, 2003). The strengths of one generation can be applied to meet the needs of the other (Jones et al., 2004).

Art and Culture

The baby boomer generation often chooses to actively participate in art education such as art classes or as a passive audience member viewing a performance or exhibit (Riley & Stanley, 2006). Both active and passive art experiences provide the individual with the benefits of discovery, stimulation, and relaxation. Although art educational opportunities currently exist for the older population, many of these opportunities have been deemed inappropriate and frivolous by the aging baby boomers (Riley & Stanley, 2006). Program objectives will need to be changed to match the expectations of younger participants (Riley & Stanley, 2006). In a survey by AARP, access to cultural events was important to maintaining quality of life for over 60% of people over the age of 50 (Gibson et al., 2003).

An individual's recreation choices were as varied as their personalities. A wide variety of offerings available for all income and education levels was found to be important for a well rounded senior center recreation program (Beisgen & Kraitchman, 2003). Different recreational opportunities meet different needs within the older adult population. For example, research has indicated lifelong learning stimulates the mind while exercise classes invigorate the body and that both are important for overall health (Beisgen & Kraitchman, 2003). The ability to have a multi-offering recreation program based in a senior center provided a setting that

was familiar and accessible to older persons, their families, and the community and met their different needs and wants within the recreation area (Beisgen & Kraitchman, 2003).

In summary, the baby boomers' devotion to recreation has evolved the recreation and leisure industry throughout their lives and will continue to do so as this group ages. Because of this evolution, the areas of lifelong learning, exercise and fitness, technology, intergenerational programs, and art and culture activities may be challenged to meet the needs of this generation as they age. By looking at what recreation needs are for the future, Grand Forks is looking to fill this recreation niche for this generation as one part of an "aging-friendly" community.

CHAPTER 3

METHODOLOGY

Sample

Two hundred survey packets were mailed to citizens of Grand Forks, North Dakota, the geographical area of the study. The random mailing was sent on October 30, 2008. This mailing list of people over the age of 45 was obtained from the city of Grand Forks Public Information Center. The allocation of surveys was based on a percentage representation of the population of the city of Grand Forks so that each age decade was sufficiently represented in the study. Due to the small percentage of people over the age of 85, that group was overemphasized and eleven additional surveys were issued. Table 2 shows the survey distribution by age group. Eighty-six surveys were returned, a return rate of 43%.

Table 2.

Distribution of Surveys by Age Group
(n=200)

Age Group	Surveys Distributed
45-54	73
55-59	23
60-64	20
65-74	34
75-84	27
85+	23

Another two hundred survey packets were a convenience sample distribution that took place at a senior wellness event, "Visions for Better Living", on October 28, 2008 at the Alerus Center in Grand Forks. The instructions stated

that only those people over the age of 45 who have, or plan to, retire and live in Grand Forks should complete the survey. Forty-five surveys were completed at this event, a return rate of 22%.

This sample was appropriate for the study for the following reasons.

1. Participants represented the group who are, or will be, aging in the Grand Forks community.
2. The needs and wants of this population were the target and premise of this study.
3. The sample obtained data from current older adults which can be compared with future older adults.

The final sample size was 115 participants ranging in age from 47 to 94. The average age was 71.39 with a standard deviation of 10.21. Age and income were continuous variables. Demographic information was compiled by age groups in Table 3 for presentation purposes only.

Measures

Each packet of surveys distributed to potential participants included an informed consent form for individuals (Appendix A), an individual survey (Appendix B), and a door prize registration form (Appendix C). The survey included both qualitative and quantitative questions. Demographic questions included age, gender, ethnic race, marital status, community organizations participating in, current annual household income, sources of that income, and highest education level. Also included within the informed consent form were directions to submit the

Table 3.

Demographic Data for Survey Participants by Age Group

	n	40	50	60	70	80	>90
n	115	4	9	35	41	24	1
Percent of Total	100%	3.48%	8.70%	30.43%	35.65%	20.87%	0.87%
Mean		48.25	54.55	65.06	74.85	83.96	94.00
Std Deviation		0.96	3.09	2.83	2.87	3.04	
Gender:							
Male	34	1	3	11	11	8	0
Female	81	3	7	24	30	16	1
Race:							
White	112	3	10	33	41	24	1
American Indian	3	1	0	2	0	0	0
Marital Status:							
Single	7	1	0	3	1	2	0
Married	57	3	9	20	18	7	0
Divorced	10	0	0	6	2	2	0
Widowed	39	0	0	6	19	13	1
n/a	2	0	1	0	1	0	0
Education Attained:							
<High School	7	0	1	1	3	2	0
High School	65	2	2	21	28	12	0
Bachelor's	29	2	4	9	6	8	0
Master's	8	0	1	3	2	2	0
Doctorate	3	0	2	0	1	0	0
n/a	3	0	0	1	1	0	1

door prize registration form separately to maintain the participant's complete confidentiality.

One hundred thirty-one surveys were returned through the two methods.

Fourteen surveys were discarded due to the age being missing and two were

discarded because they were not filled out. The final sample was 115 surveys, a return rate of 28%.

The sample survey instrument was accepted as a valid measure by a variety of stakeholders in each of the sub-problem areas. The Grand Forks Mayor's Maturing Population Summit was called to order on June 13, 2007. Seventy-five representatives of city departments, senior service agencies, board members, and city council members discussed the future of the city in relation to the aging baby boomer population. After the group had an initial meeting with the mayor, committees in each sub-problem area were assigned and met to discuss the areas of concern. A total of over 100 individuals representing agencies or departments with an interest in this project met from December 2007-June 2008 to develop the questionnaire to be used in this project. The questionnaire was finalized by these committees by email in July and August of 2008.

The survey instrument (Appendix B) contained 71 questions. Questions 1-10 pertain to the area of housing. Questions 11-20 pertain to transportation and infrastructure. Questions 21-34 pertain to the area of health, nutrition, and supportive services. Questions 35-44 pertain to recreation and leisure time activities. Questions 45-53 deal with employment and civic engagement. Questions 54-58 pertain to taxation and finance. Questions 59-62 deal with public safety. The demographic questions were questions 63-71.

A five point scale was used in the survey instrument with 5 very likely to 1 very unlikely, 5 very satisfied to 1 very unsatisfied, 5 very aware to 1 very unaware, 5 very confusing to 1 very not confusing, and 5 very concerned

to 1 very not concerned. Some questions allowed for written comments to be made. The last question in each section also allowed for written comments on each sub-problem area.

Outreach workers from the Greater Grand Forks Senior Citizens Association were available to provide support to those needing assistance with surveys. They were trained by the researcher to be consistent in answering questions from respondents.

Procedures

All questionnaire packets included an informed consent form (Appendix A) with information about the purpose of the study, participants' rights and the name, phone number, and email address of a contact for those who might have questions about the questionnaire and the study. The informed consent form was attached to the front of the questionnaire. By completing the questionnaire, the participant gave consent. All participants were eligible for a prize drawing of a \$50 Columbia Mall gift certificate that was provided by the Greater Grand Forks Senior Citizens Association. The prize drawing forms were separated from the questionnaires by a neutral party, the office secretary, before forwarding to the researcher. Respondents were asked to fill out the questionnaire (Appendix B) and return it in the self-addressed stamped envelope that was provided with the questionnaire or turn it in at the wellness event. Those needing assistance in completing the questionnaire were instructed to call the Outreach Department of the Greater Grand Forks Senior Citizens Association for phone assistance or for an in-home or office appointment. Three individuals were assisted by phone. An Outreach

worker was available at the wellness event for those who needed assistance. Two individuals were assisted at the wellness event.

Analyses

The survey looked at seven different areas: housing; transportation and infrastructure; health, nutrition, and support services; recreation; employment and civic engagement; taxation and finance; and public safety. Appendix B includes the entire survey. Data on this study was analyzed using SAS. Most responses were coded 1-5 with 5 being a more positive answer to the question. Responses were coded numerically by the researcher and submitted by email to the North Dakota State University Statistical Consulting Service. Age and income were continuous variables.

Gender Analysis

T-test analysis was used to determine significant differences between gender groups and each recreation question. T-test analyses were used to obtain comparisons on means between the gender groups.

Age Analysis

Pearson correlations were used to examine the relationship between increasing age with each recreation question. A positive correlation, for these items indicate that as age increased, rating scores increased. A negative correlation indicated that as age increased, rating scores decreased.

Race Analysis

Demographic data on race was not examined due to the lack of racial and ethnic diversity of those who returned surveys.

Organizations Participated In Analysis

An analysis of variance was used to determine the relationship between the number of organizations in which a person participated and the recreation questions.

Marital Status Analysis

Analysis of variance was used to determine significant differences between marital status groups and each recreation question. Tukey's test method was used to obtain comparisons on means.

Income Analysis

Pearson correlations were used to examine the relationship between income and each recreation question. A positive correlation for these items indicated that as income increased, rating scores increased. A negative correlation indicated that as income increased, rating scores decreased.

Education Level Analysis

Analysis of variance was used to determine significant differences between education level groups and each recreation question. Duncan's grouping method was used to obtain comparisons on means.

CHAPTER 4

RESULTS

Results from these findings on recreation will enable agencies and the city to review differences in the Grand Forks population compared to previous research and to plan for the recreational needs of an aging population. Appendix D lists the results for all the survey questions. Table 4 includes results from the recreation area of the survey. Items that stand out as especially high or low on this survey include those with a mean close to 1 and 5. None of the means fell in these extremes. The highest survey means for recreation were related to means being met by the city's art and culture opportunities. The only mean for recreation below 3.0 was for the item on the likelihood of taking part in lifelong learning. The mean scores suggested the respondents perceived that their recreation needs are somewhat likely to be met in the future and that they are somewhat likely to participate in such activities because they want to and can afford to participate.

Written comments were also categorized. Question #35 had two comments on the cost of recreation making it unlikely that Grand Forks would have activities they wanted as they aged. In question #36, comments empathized the positive attitude of the baby boomers with the aging process. Twenty-nine respondents stated that they planned to be doing the same recreation activities as they age that they were currently participating in. Also six stated they would utilize walking, four would utilize swimming and two would take trips. The written comments for question #40 listed reasons the respondents would not likely utilize fitness centers. Nine listed health issues as impeding activity. Five listed cost as an issue and

Table 4.

Survey Results for Recreation

Area & Question Number	N	Mean	SD
Q35-Likely GF will provide recreation you want	115	3.55	1.31
Q37-Likely to take part in lifelong learning	114	2.60	1.47
Q38-Likely to stay up to date with technology	115	3.18	1.42
Q39-Likely to afford educational opportunities	115	3.05	1.46
Q40-Likely to utilize fitness center	115	3.32	1.54
Q41-Likely that GF art/culture will meet needs	112	3.61	1.34
Q42-Ability to afford cultural events	115	3.37	1.44
Q43-Interested in intergenerational programs	114	3.29	1.35

three stated the location of the fitness center would limit their usage. Question #44 was for general comments in the recreation and leisure section. Comments included seven comments that health issues may limit their participation. Five stated that a lack of transportation options may limit their participation and four stated that the cost of activities would limit their participation. Five also stated that the availability and their interest in particular activities would limit their participation. Two stated that the cold winter weather would affect their participation. General comments at the end of the survey in the recreation area suggested that the cost of living and fear of outliving resources would affect participation in some activities. Also noted by two respondents was a belief that health issues may affect their participation in the future.

Gender Results

A t-test analysis was used to examine the relation of gender to the recreation questions. Table 5 shows that only recreation question #35 had a significant finding related to gender. Males were more likely than females to believe that Grand Forks would be able to provide the type of recreation they want as they age.

Age Results

Pearson correlations were used to determine the relation between age and the recreation questions. Table 6 shows that all but question #35 of the recreation questions had a significant negative correlation with age. The results show that Grand Forks baby boomers are more likely to participate in lifelong learning; art and culture; and are better able to afford these opportunities than the current senior population. Baby boomers also rated themselves as more likely to stay up-to-date with technology than older adults did. Baby boomers scored significantly higher on the perceived likelihood fitness centers will be utilized by this generation. They are also more interested in participating in intergenerational programs.

Organizations Participated In Analysis

An analysis of variance was used to determine the relation between the number of organizations in which a person participated and the recreation questions. There were no significant findings in this relationship.

Table 5.

Gender Results for Recreation

Question Topic Area	T	Mean	
		Male	Female
35. How likely is it that GF will be able to provide the type of recreation you will want as you age?	2.12*	3.94	3.38
37. How likely are you to take part in lifelong learning opportunities?	-0.87	2.41	2.67
38. How likely are you to stay up to date with technology as you age?	0.69	3.34	3.12
39. How likely are you to be able to afford educational opportunities in the community as you age?	1.15	3.29	2.95
40. How likely are you to utilize a fitness center geared to older adults?	1.62	3.67	3.17
41. How likely is it that the Grand Forks art & culture scene will meet your needs as you age?	0.21	3.64	3.58
42. How likely is it that you will be able to afford to attend cultural events in the community as you age?	1.04	3.58	3.28
43. How likely is it that you would be interested in intergenerational programs or activities as you grow older?	0.63	3.41	3.23

p<0.05

Table 6.

Pearson Correlation with Age for Recreation

Question Topic Area	n	r
35. How likely is it that Grand Forks will be able to provide the type of recreation you will want as you age?	115	-0.11
37. How likely are you to take part in lifelong learning opportunities?	113	-0.37 *
38. How likely are you to stay up to date with technology as you age?	114	-0.40*
39. How likely are you to be able to afford educational opportunities in the community as you age?	114	-0.24*
40. How likely are you to utilize a fitness center geared to older adults?	114	-0.39*
41. How likely is it that the Grand Forks art & culture scene will meet your needs as you age?	111	-0.30*
42. How likely is it that you will be able to afford to attend cultural events in the community as you age?	114	-0.22*
43. How likely is it that you would be interested in intergenerational programs or activities as you grow older?	113	-0.37*

*p<0.05

Marital Status Results

Analyses of variance were used to determine the relation between marital status (single, married, divorced, widowed and no answer) and the recreation questions. Table 7 shows the results for the recreation questions.

Question #38 responses differed significantly by marital status. Tukey's test indicated that married respondents (mean=3.61) were more likely than widowed respondents (mean=2.56) to stay up to date with technology. Question #39 differed significantly by marital status. Tukey's test indicated that married respondents (mean=3.42) were more likely to be able to afford educational opportunities than widowed respondents (mean=2.48). Question #43 responses also differed significantly by marital status. Tukey's test indicated that married respondents (mean=3.49) were more likely to be interested in intergenerational programs than widowed respondents (mean=2.68). In addition, divorced respondents (mean=4.10) were more likely than widowed respondents (mean=2.68) to be interested in intergenerational programs.

Income Results

Pearson correlations were used to determine the relation of income to the recreation questions. Table 8 shows the results of the correlations of the recreation questions with income.

The results for questions about the affordability of recreation activities indicated that income was positively and significantly related. The perceived ability to buy new technology and stay up to date was also positively and significantly related to increasing income. The perceived ability to utilize a fitness center

Table 7.

Analysis of Variance for Marital Status and Recreation

Question Topic Area	n	SS	df	MS	F
35. How likely is it that Grand Forks will be able to provide the type of recreation you will want as you age?	115	8.78	4	2.19	1.30
37. How likely are you to take part in lifelong learning opportunities?	113	19.89	4	4.97	2.40
38. How likely are you to stay up to date with technology as you age?	114	26.8	4	6.70	3.61*
39. How likely are you to be able to afford educational opportunities in the community as you age?	114	21.43	4	5.36	2.65*
40. How likely are you to utilize a fitness center geared to older adults?	114	16.60	4	4.15	1.81
41. How likely is it that the Grand Forks art & culture scene will meet your needs as you age?	111	7.92	4	1.98	1.11
42. How likely is it that you will be able to afford to attend cultural events in the community as you age?	114	8.80	4	2.20	1.07
43. How likely is it that you would be interested in intergenerational programs or activities as you grow older?	113	25.2	4	6.31	3.77*

*p<0.05

and increasing income was related positively and significantly. The ability to afford art and culture events was also positively and significantly related to increasing income.

Table 8.

Pearson Correlation with Income and Recreation

Question Topic Area	n=72	r
35. How likely is it that Grand Forks will be able to provide the type of recreation you will want as you age?		0.08
37. How likely are you to take part in lifelong learning opportunities?		0.21
38. How likely are you to stay up to date with technology as you age?		0.24*
39. How likely are you to be able to afford educational opportunities in the community as you age?		0.38*
40. How likely are you to utilize a fitness center geared to older adults?		0.32*
41. How likely is it that the Grand Forks art & culture scene will meet your needs as you age?		0.27*
42. How likely is it that you will be able to afford to attend cultural events in the community as you age?		0.33*
43. How likely is it that you would be interested in intergenerational programs or activities as you grow older?		0.08

*p<0.05

Education Level Results

An analysis of variance was used to determine the relation between the respondent's education level and the recreation questions. Table 9 lists these results.

Only question #39 had a significant relation between the education level and the recreation questions. Results showed respondents with a doctorate degree (mean=4.67) were more likely to be able to afford education opportunities than respondents with a high school degree (mean=2.71) or less than a high school (mean=2.43) education. Table 10 shows the Duncan grouping results. The Duncan method was used because there was no significant difference when the Tukey's method was used, which is a more conservative analysis method. The Duncan's grouping method did show significant differences within the pairs.

Table 9.

Analysis of Variance for Education and Recreation

Question Topic Area	n	SS	df	MS	F
35. How likely is it that Grand Forks will be able to provide the type of recreation you will want as you age?	115	1.34	5	0.27	0.15
37. How likely are you to take part in lifelong learning opportunities?	113	13.99	5	2.80	1.31
38. How likely are you to stay up to date with technology as you age?	114	9.22	5	1.84	0.91
39. How likely are you to be able to afford educational opportunities in the community as you age?	114	31.15	5	6.23	3.19*
40. How likely are you to utilize a fitness center geared to older adults?	114	8.77	5	1.75	0.73
41. How likely is it that the Grand Forks art & culture scene will meet your needs as you age?	111	14.60	5	2.92	1.68
42. How likely is it that you will be able to afford to attend cultural events in the community as you age?	114	19.72	5	3.94	2.00
43. How likely is it that you would be interested in intergenerational programs or activities as you grow older?	113	2.47	5	0.49	0.26

*p<0.05

Table 10

Duncan Grouping for Education and Affordability

	Duncan Grouping	Mean	N	Education Level
	A	4.67	3	Doctorate
B	A	3.88	8	Master's
B	A	3.55	29	Bachelor's
B	A	3.33	3	No Answer
B		2.71	65	High School
B		2.43	7	Less than High School

CHAPTER 5

DISCUSSION

The general focus of the survey used for this study was to gather information on key issues and priorities in the area of recreation and leisure time activities included in a larger survey from the current senior population and aging baby boomers. Since the Grand Forks Senior Center is a major provider of recreation for senior citizens, the goal of the current analyses was to test the differences among demographic groups specifically with regard to expectations about recreation. This information will assist the Grand Forks Senior Center and city of Grand Forks plan for the current and future aging population. This survey is one assessment piece being utilized to determine strategic planning for future programming and facility needs. The Grand Forks Senior Center is also conducting a building/facility needs assessment and a funding/revenue assessment in 2010-2011.

Overall, the recreation responses were scored at the higher end of the scale with respondents perceiving that they were likely to be satisfied with the recreation offerings in Grand Forks including areas such as education and lifelong learning; fitness and exercise opportunities; the ability to stay up to date with technology; intergenerational programs; and art and cultural opportunities. As the Grand Forks Senior Center sets recreation priorities for future programming, it must bear in mind that limited funding will be available. The ability to partner with other organizations will be vital to the success of expanded recreation opportunities. Because of the lack of a well-rounded exercise program at the Grand Forks Senior

Center and the benefits of a regular exercise program, the first priority will be to encourage older adults to utilize fitness centers to promote wellness and healthy living. Regular exercise has been shown in research to enhance quality of life in older adults (Fitzpatrick et al., 2008), and a key strategy for helping older adults live with chronic health conditions is regular exercise (Loeb et al., 2003). Since the Grand Forks Park District is already planning a new fitness and wellness center, the Grand Forks Senior Center should advocate for older adults and encourage their participation in the design, function, and offerings of this new center.

The Grand Forks Senior Center can also partner with the Osher Lifelong Learning Institute and the community education programs to promote programming that will appeal and engage older adults and baby boomers (Scharlach, 2009). Partnerships with Northern Valley Arts Council, Grand Forks School District, and the University of North Dakota can provide multiple art and cultural opportunities for older adults of all income levels. By utilizing the Grand Forks Senior Center web page and newsletter for advertising, these partnerships and opportunities can be implemented with little or no cost to the Grand Forks Senior Center. The limited recreation program funding that is available could be utilized to increase intergenerational opportunities and to address some of the barriers to participation that were addressed in the written comments such as the cost of participation and the accessibility options through public transportation. The study results showed that there are differences in perceptions about recreation based on demographics and these will need to be addressed in the

programming opportunities. A discussion of specific demographic differences is addressed below.

Gender and Recreation

Overall, results indicated that gender was not strongly related to recreation answers. Previous research in this area showed that changes have occurred for both women and men. Women in the workplace have achieved more pay and equality than any other generation, making them wealthier in their own right (Partners of Livable Communities, 2005). Greater affluence could decrease the likelihood that being a widow could result in low income and the inability to afford recreation opportunities. In addition, with men living longer, the ratio of men to women in old age is decreasing and this trend will continue (Redfoot & Pandya, 2002). The narrowing gender ratio of men to women among those 55 years of age and older will likely result in lower rates of widowhood for women and more spousal care giving by men (Redfoot & Pandya, 2002). Previous research also suggests that men are more likely to stay up to date with technology (Beisgen & Kraitchman, 2003). These gender trends suggested that survey results should reflect some gender difference. However, for all but one recreation question, there was no significant difference.

Results did show that males were more likely to think Grand Forks would have the type of recreation they want as they age. It is possible that many current recreation activities in Grand Forks cater to men, such as snowmobiling, hunting and gun clubs, fishing, hockey, and softball. Typical female recreation activities such as yoga and fitness classes, scrapbooking, and book clubs are just getting

started within the community. Gender variation is an area that needs additional research to find out if this is an actual or perceived issue. Additional research could use qualitative interviews to explore these gender differences.

Age and Recreation

Lifelong learning had a strong negative correlation with increasing age. This finding could be related to either age or cohort effect and, thus, it should not be assumed that future cohorts of older adults will be less engaged in lifelong learning. This result is similar to previous research that has shown younger, healthy seniors were more likely to participate in programs such as Osher Lifelong Learning Institute, Third Age Universities, and Elderhostel Institutes (Partners for Livable Communities, 2005; Pulte Homes, Inc. 2007; Ziegler, 2002). One possible reason is that the current senior population was less mobile, therefore less likely to travel in their older years. The mean is lower on this question than the other recreation questions, which could indicate that people would be slightly less likely to participate in lifelong learning than other recreation opportunities.

The likelihood that the person will stay up to date with technology as they age had a strong negative correlation with increasing age. The older the participants, the less likely they were to indicate they would stay up to date as they grow older. This finding follows the previous research findings that only 22% of Americans over the age of 65 utilize the internet, as compared to 58% of those age 56-64 (Fox, 2004). Americans under the age of 65 grew up in a different era than current older adults. Technology has been a part of their lives, in both personal and work environments. It may be expected that this survey group would be more

likely to stay up to date with technology the younger they currently are. The older the participants, the less likely they would be to stay up to date as they grow older.

The affordability of educational opportunities was negatively correlated with age. This finding is similar to previous research that states the baby boomer population has more financial resources and is likely to use them on recreational opportunities, such as lifelong learning (Githens, 2007).

The likelihood of utilizing a fitness center geared to older adults has one of the strongest negative correlations with age. The results show that the younger the age of the participants, the more likely they were to expect to utilize fitness centers as they age. Previous research suggested that the baby boomer population was likely to use fitness centers, especially upscale ones, in order to remain physically active as they age (Nakasato & Carnes, 2006; Partners for Livable Communities, 2005; Pulte Homes, Inc., 2007; St. Clair, 2008; Ziegler, 2002). Written comments about the barriers to utilizing a fitness center are also similar to previous research results. Barriers such as cost, location, accessibility, the health limits of the person, and geographical limits on activities were all mentioned in the written comment section of the study and are documented in previous research (Kahana et al., 2003).

The adequacy of the art and culture scene to meet the participant needs was also negatively correlated with age. The results indicated that the younger the participant, the more likely that they expect the art and culture scene would meet their needs as they age. This contradicts research in which younger baby boomers are not satisfied with the current art opportunities (Riley & Stanley, 2006).

As both an urban and university community, Grand Forks has a wide variety of cultural events and art education outlets, so this level of satisfaction is not a surprising result. Written survey comments from older adults related to the cost of events and a lack of transportation alternatives, especially on Sunday when there are no transit buses in service.

The affordability of cultural events in the community had a negative correlation with increasing age. The younger the participant, the more likely they state they would be able to afford cultural events. The previous research states that baby boomers will have more financial resources and will be more willing to spend those resources on recreation and leisure activities (Riley & Stanley, 2006). In addition, Grand Forks has many free or low cost cultural events, which make attending cultural events more affordable, even for low income people. Examples of these events are the North Dakota Museum of Art and Myra Museum; both offering low cost admission. There are free art displays in businesses in town such as Urban Stampede and the University Coffee Shop. Local high schools and the University of North Dakota offer free and low cost theater productions and musical concerts. The annual Grand Cities Art Fest provides free live demonstrations on a variety of art and crafts with different media in an "Arts in Action" theme.

Interest in participating in intergenerational programs was negatively related to increasing age. The younger the participant, the more likely they were to be interested in participating in intergenerational programs as they age. Research showed that older adults were currently involved in intergenerational programs, where available (Beisgen & Kraitchman, 2003; Gerteis et al., 2004; Leitch, 2009;

National Association of Area Agencies & MetLife Foundation, 2007). Similar to research in this area, Grand Forks does not have more than a few formal intergenerational programs, such as the Foster Grandparent Program, in which older adults can participate (Beisgen & Kraitchman, 2003). Programs such as Foster Grandparent Program are income based, which restricts participation. Intergenerational programs would be an area of potential growth for the Grand Forks area as baby boomers age.

The findings from the written responses in the comments section were similar to quantitative responses. The baby boomers expected to continue with the same recreational activities they are currently doing as they age (Fisher & Wolf, 2000). Many expect to continue to be active in a wide variety of interests. Written responses on what issues the person may see in the recreation area as they age were collected. These comments raised the same issues found in previous research such as health issues may impede activity, the lack of availability of things they want to do, lack of transportation limiting participation, and cost of events or programs limiting participation (Fisher & Wolf, 2000; Minnesota Department of Human Services, 2007; National Association of Area Agencies on Aging et al, 2007; National Association of Area Agencies on Aging & MetLife Foundation, 2007).

Marital Status and Recreation

Married respondents were more likely to expect to stay up to date with technology than widowed respondents. There are a couple of possibilities as to why this result was found in Grand Forks. Married couples generally have a higher

income than widowed people (Beisgen & Kraitchman, 2003). Widowhood is a precipitating life event that can lead to a fixed income and poverty, especially for women (Beisgen & Kraitchman, 2003). Men are more likely to use technology and are more likely to be married in later life than women (Beisgen & Kraitchman, 2003). Those less likely to use technology include typical groups with higher proportions of females, such as lower income, lower education level, and those not working outside the home.

Married respondents were also more likely to perceive being able to afford educational opportunities than widowed respondents. Some of the same reasons can be responsible for this correlation, in that married couples generally have a higher income than widowed people (Beisgen & Kraitchman, 2003). In addition widowhood is a precipitating life event that can lead to a fixed income and poverty, especially for women (Beisgen & Kraitchman, 2003).

Married and divorced respondents were more likely to be interested in intergenerational activities than widowed respondents. This finding contradicts research findings. Divorced respondents may be interested in the benefits of these activities which can be lacking in their own lives. Benefits include the ability to reduce isolation and loneliness through social contact, activities may provide unconditional acceptance and emotional support, and the opportunity to improve their self-esteem (Beisgen & Kraitchman, 2003; Griff & Lambert, 1996; Larkin & Sadler, 2005; Montoro-Rodriguez & Pinazo, 2005; Reisig & Fees, 2006).

Intergenerational activities have been shown to be important in maintaining the morale of older people and providing the adult with a sense of purpose for living. It

is unknown as to why married respondents perceive an interest in intergenerational activities. It could be that their own children and grandchildren live out of state and they are looking for family member surrogates in which to spend time. Research has shown that widowed people are more likely to participate in intergenerational activities (Beisgen & Kraitchman, 2003). Widowed respondent's perception was that they were less likely to participate in intergenerational activities. This finding could be due to a variety of reasons. One, there is a current lack of variety in formal intergenerational programs in Grand Forks for all income levels. Second, it could be that widowed respondents are already highly engaged in intergenerational relations through their family and don't seek formal options. Or third, perhaps widows are already involved in the current intergenerational programs due to the fact they suffer economically and these programs, such as Foster Grandparent Program, are income based.

Income and Recreation

Overall, members of the baby boomer generation have stated that they are more self-indulgent, will live longer, be in better health, be more self-reliant, and have more money when they retire than previous generations (Partners for Livable Communities, 2005). Previous research has found that higher income is the most likely predictor of internet use (Beisgen & Kraitchman, 2003) and that lower income is a barrier to joining a fitness center (Kahana et al., 2003). Results in the current study support these attitudes. In this study, increasing income correlated positively with questions that ask about the affordability of recreation opportunities. Other recreation opportunities that have costs associated with their use such as fitness

center dues, buying new technology, and attending cultural events also correlated positively with increasing income. It was expected that a higher income would make participation in these areas more likely and attainable.

Education and Recreation

Educational attainment influences socioeconomic status. Higher levels of education are usually associated with higher incomes (Beisgen & Kraitchman, 2003). The ability to afford educational opportunities correlated positively with education level. This outcome was expected based on previous research (Beisgen & Kraitchman, 2003).

Implications

The implications of this study for the Grand Forks community are many. Since the first of the baby boomer generation is reaching traditional retirement age, many of the implications and suggestions could be started now in order to be fully implemented by the time the majority of boomers are ready to use the opportunities. The next few years will be an opportune time to pilot some of these ideas so they are ready for large scale use as the older population grows. Plus those currently in their later years would benefit from expanded recreational offerings. Due to the cost involved in administering and running recreational opportunities, organizations such as the Grand Forks Senior Center, the Grand Forks Park District, and community education should be encouraged to partner with each other to enhance the recreation opportunities already in place and to expand opportunities to meet the needs of the future aging population.

Research has suggested that the more education and higher income a person had, the more likely he/she was to be interested in lifelong learning and able to afford these opportunities (Beisgen & Kraitchman, 2003). Area colleges and universities should be encouraged to be senior-friendly by reducing barriers to attending college classes in the later years of life. With a large university within the city limits, university retirees will provide many potential participants for programs such as Osher Lifelong Learning Institute and community education programs. Community education programs should offer more senior-oriented classes in order to take advantage and serve this large population. The senior center could investigate starting an Elderhostel Institute program that would be based in the Grand Forks area.

Weekly free education classes are held at the senior center and could be expanded. Education should be offered in the evening as well as the afternoon to reach a larger senior audience. Since this weekly program is so successful, it may be time to hold specific subject education sessions such as on health issues or world travel. The community also has a need to have education available to keep people of all income and education levels up to date with technology changes. These weekly classes would be a perfect opportunity to teach about using technology and changes in technology. Classes would also be a good opportunity for the senior center to open their doors to the public and offer technology updates to all interested persons. Educating people on how technology, such as the Wii or electronic devices, can help them live healthier and safer lives could be important to both older adults and the aging baby boomers as they strive to age in place.

The weekly education framework also needs to stay up to date with technology and should be web cast or taped and available by computer for all, whether homebound, working, or care giving, to view at their convenience.

The affordability of recreation opportunities will be an issue for those people lacking financial resources. However, even without the financial resources, baby boomers will probably continue their history of wanting their needs to be met so a variety of programming at varying costs will need to be available. The weekly free education sessions at the senior center could meet part of these needs.

As the Grand Forks Park District looks at building a new community wellness center, they need to seriously consider the needs of the baby boomer generation. The baby boomer generation will be a large part of the population and their membership income could go a long way to providing sustaining income for the facility. Scholarships should be available for those who cannot afford monthly facility fees so that all older adults would have access. The wants and needs of the baby boomer population should be considered in the design of the facility and its programs should be tailored to help them stay physically and mentally active. The staff of the senior center should act as an advocate for older adults and encourage their participation in this project. Research (Ferri et al., 2009; Kahana et al., 2003; Nakasato & Carnes, 2006; Partners for Livable Communities, 2005; Phelan et al., 2004; Riebe et al., 2009) showed that this population will be very interested in utilizing fitness centers and preventive health measures, and this survey's results showed that the Grand Forks population is no different.

In the area of art and culture, Grand Forks needs to continue to provide a variety of programs with varying costs, to meet the needs of all individuals. The senior center could coordinate a program where a certain number of seats for cultural events are given to a scholarship program for lower income seniors to access at free or reduced cost. The senior center could advertise low cost and free events on their web page and in their monthly newsletter.

In the area of intergenerational programs, Grand Forks seems to be lacking in a variety of intergenerational programs for all income levels. Currently there are only two formal intergenerational programs including a mentoring program for youth offenders and the Foster Grandparent Program, which is an income-based intergenerational program. There are no onsite child daycares within nursing homes or senior centers. Groups such as the local school system, Lutheran Social Services and neighborhood centers such as The Link and Homestead Place need to plan for and expand formal and informal intergenerational opportunities in the community. One example could include having older adults teach young people ethnic arts such as doily making, rosemaking, or preparation of ethnic foods such as lefse. Such activities would benefit both the older adults and the children. The lack of space and staff at the current senior center discourages expansion into intergenerational opportunities. However, they could formally encourage the expansion of these opportunities and encourage older adult clients to utilize these new programs.

The current plan by the Grand Forks Park District to integrate a senior center, fitness center, health and rehab clinic, arts program, and day care into a

new community wellness center would go a long way toward fulfilling the needs of the baby boomer generation. The center would provide them the opportunity to have a single place to exercise, socialize, do rehab and see to their healthcare needs, eat nutritious meals, take classes, provide access to the internet and computers, and work with children in intergenerational programs. The ability of the senior center to expand to multiple facilities or move entirely to a larger facility would give the organization the opportunity to integrate such things as multiple classroom space for a variety of education classes; a secure display environment for art within the facility; state of the art technology design; all connected to an upscale fitness center with multiple offerings for all older adults.

Limitations

As with any research, there are a number of limitations of this study. First, some questions were not completed, which decreased the sample size for some questions. Two surveys were not completed at all and fourteen surveys were discarded because no age was listed in the demographics. A method of checking completeness of the surveys handed in at the wellness event should have been implemented. Income demographic information was completed on only 72 surveys.

With American Indian as the only minority represented, there was a lack of racial and ethnic diversity in the respondents. Census data estimates from 2008 show that Blacks are 1.5% of the population in Grand Forks County; Alaska Native/American Indian are 2.7%; Pacific Islander/Native Hawaiian/Asian are 1.3%; Hispanic are 3% and White/Caucasian 91.5% (Rathge, 2009). Many of the

ethnic groups are children and working adults from the Air Force Base, University of North Dakota, and the medical community. The survey has adequate representation of the American Indian population with 2.6% of the surveys returned from this group. All other ethnic races were not represented in this study. It is unknown if there are older adults living in the community from other ethnic groups. One area of growth in the community recently has been with the new Americans. There are some older adults within these refugee groups and their needs should have been assessed.

Half of the sample was a convenience sample from a wellness event for older adults which decreased the external validity of the results. Because this is a cross-sectional study and not a longitudinal study, it is limited in determining cause and effect. The question remains whether the results were related to age effects or cohort effects. Also, the type of people who attend wellness events may be similar in nature, therefore answering the questions in a similar manner.

The interpretation of the data is limited by these factors. As stated above, the survey differences may be from age effects or cohort effects. It is unknown if the baby boomers of today would answer more similarly to the older adults of today as they age or if they have a truly different attitude about aging.

Another limitation may relate to limitations of older adults. Because the survey was text-based, people with vision, comprehension, or cognitive declines may have avoided filling out the survey. This limitation is similar to research on the barriers to technology usage (National Institute on Aging & National Library of Medicine, 2002).

Strengths

First, an adequate sample was obtained from all age groups except the over 90. Second, the sample was diverse with respect to gender, marital status, and education.

A major strength of this study was that it was a community collaboration with many different agencies and individuals participating. The results will be utilized by community agencies and the city of Grand Forks to plan for a positive aging experience within the city of Grand Forks. Not only were the question results collected but there is much information to be learned from the written comments that were made throughout the surveys. These comments can provide insight into life as a current senior citizen and what baby boomers hope to expect as they age. The ability to utilize this data will assist the city in making Grand Forks an “aging-friendly” community.

Directions for Future Research

There is still a large amount of data to analyze in this survey within the areas of housing; transportation and infrastructure; health, nutrition, and supportive services; employment and civic engagement; taxation and finance; and public safety. Examples of the information to be found in the other areas include how nursing homes will be utilized in the future, what type of housing modifications will be popular in the future, and how long will baby boomers intend to stay in the work force.

Additional research could focus on the forty and fifty year old population, as they are the senior citizens of the future. Because each community has different

ethnic backgrounds, diversity research would also be important. Research could be focused on the working senior population or new Americans currently relocating to Grand Forks. This research should entail what their needs and wants will encompass.

Conclusions

This research has shown that the baby boomers of Grand Forks, for the most part, are similar to the national cohort in their wants and needs. They have produced social change throughout their lives and their older years look to be no different. The community will need to assess their current environment and make plans for integrating or expanding intergenerational activities and fitness programs. The city will need to provide a variety of activities with varying costs. By meeting the needs and wants of the baby boomer population, Grand Forks will become an aging-friendly community. Grand Fork will become a community in which people will want to stay, contribute to, and live out their later years.

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APPENDIX A

Informed Consent Form-Individuals

North Dakota State University
Department of Child Development and Family Science
College of Human Development & Education
P.O. Box 5057
Fargo, ND 58105-5057
(701)231-8268

NDSU RESEARCH STUDY

Preparing for the “Silver Tsunami”: Grand Forks Analyzes Opportunities and Challenges for an Aging Baby Boomer Generation.

Dear Resident of Grand Forks over the age of 45:

My name is Colette Iseminger. I am a graduate student in Gerontology at North Dakota State University, and I am conducting a research project for the City of Grand Forks and the Greater Grand Forks Senior Citizens Association. The issue of the aging population is one of our community’s greatest issues to face in the coming years. The City of Grand Forks, partnering with the Greater Grand Forks Senior Citizens Association wants to determine their community’s “aging readiness” or their ability to provide programs, policies and services that address the needs of older adults and look at opportunities to retain this aging population. The focus of this research project will be to assess the community’s aging-readiness in the areas of transportation and infrastructure; housing; health, nutrition and supportive services; recreation; employment and civic engagement; taxation and finance; and public safety and make recommendations on how to best prepare Grand Forks.

You are invited to participate in this research project. Your participation is entirely voluntary, and you may decline or withdraw from participation at any time without penalty. If you decide to participate proceed with the attached survey which will ask you a series of questions about your perceived future needs.

It should take about 20 minutes to complete the questionnaire about the needs of Grand Forks in the future. The survey should be returned in the self addressed stamped envelope that has been provided or to Colette Iseminger, Greater Grand Forks Senior Citizens Association, 620 4th Ave. South, Grand Forks, ND 58201. To thank you for your time, you may put your name in the drawing for a \$50 Columbia Mall gift certificate. The entry form into the drawing will be separated by the receptionist upon receipt at the senior center and will not be linked with your survey.

Your identity will not be revealed in the information we collect or in the research results and your responses will remain confidential. Your name will not be collected in the survey form. Only group comparisons will be made and reported in summary form. Although all studies have some degree of risk, the potential in this project is quite minimal. You will not incur any costs as a result of your participation in this study.

If you have questions about this project, please call me at (701)772-7245 or email at director.gfsc@midconetwork.com or my advisor at Dr. Greg Sanders, at (701)231-8272 or Greg.Sanders@ndsu.edu. If you have questions about the rights of human participants in research, or to report a problem, contact the NDSU IRB Office, (701)231-8908 or ndsu.irb@ndsu.edu.

Thank you for your participation in this research. If you wish to receive a copy of the results, please send an email to me at director.gfsc@midconetwork.com.

Sincerely,

Colette Iseminger
NDSU Graduate Student &
Executive Director, Greater Grand Forks Senior Citizens Association

APPENDIX B

Individual Survey

Assessing Your Community's Aging-Readiness. Please answer the questions based on what you perceive your current or future needs to be in the Grand Forks area and return in the self addressed stamped envelope. Please include the prize drawing form in order to be included in the \$50 Columbia Mall gift certificate drawing (prize forms will be separated from the surveys on arrival).

HOUSING:

1. How likely are you to remain in your current home after retirement?

Very likely ___5 ___4 ___3 ___2 ___1 Very unlikely

If **unlikely**, what type of housing arrangement would you like? _____

2. How likely do you think it is that your current housing arrangement will remain affordable to you as you age?

Very likely ___5 ___4 ___3 ___2 ___1 Very unlikely

If **unlikely**, why not? _____

3. How likely are you to utilize housing with services (meals, housekeeping, personal care, transportation) as you age?

Very likely ___5 ___4 ___3 ___2 ___1 Very unlikely

4. What modifications would you do to your home in order to remain there?

Ramps Walk-in shower
 Main floor laundry Whatever is needed

5. How likely is it you will be able to afford these modifications?

Very likely ___5 ___4 ___3 ___2 ___1 Very unlikely

6. How likely would you consider living in housing that was connected to or nearby services such grocery shopping, banking and medical providers?

Very likely ___5 ___4 ___3 ___2 ___1 Very unlikely

7. How likely are you to remain in Grand Forks after retirement if desirable housing choices (i.e., retirement housing with all services) were available?

Very likely ___5 ___4 ___3 ___2 ___1 Very unlikely

8. How likely are you to consider living in housing that has a variety of ages?

Very likely ___5 ___4 ___3 ___2 ___1 Very unlikely

9. How likely are you to consider living in housing only for your peer group?

Very likely ___5 ___4 ___3 ___2 ___1 Very unlikely

10. What are some issues you see in the HOUSING area as you age?
-

TRANSPORTATION/TRANSIT AND INFRASTRUCTURE (such as roads, road layout & signage):

11. How confusing do you find signage (i.e., street signs--Cherry St. and directional signs--Post Office →)?

Very confusing ___5 ___4 ___3 ___2 ___1 Not at all confusing

12. How satisfied are you that the street design of our community will meet your needs as you age?

Very satisfied ___5 ___4 ___3 ___2 ___1 Not at all satisfied

13. How likely are you to walk to businesses such as grocery shopping, medical appointments, and banking if they are accessible?

In Summer:

Very likely ___5 ___4 ___3 ___2 ___1 Very unlikely

In Winter:

Very likely ___5 ___4 ___3 ___2 ___1 Very unlikely

14. How likely is it that adequate public transit/transportation options will be available to meet your needs as you age?

Very likely ___5 ___4 ___3 ___2 ___1 Very unlikely

If unlikely, why?

15. How likely is it you will be able to afford this transportation as you age?

Very likely ___5 ___4 ___3 ___2 ___1 Very unlikely

16. How likely are you to rely on friends and family to drive you where you need to go when you are no longer able to drive?

Very likely ___5 ___4 ___3 ___2 ___1 Very unlikely

17. How likely are you to access public transit (City Bus, Senior Rider, Dial A Ride)?

Very likely ___5 ___4 ___3 ___2 ___1 Very unlikely

18. How aware are you to the challenges that older adults face as they age (i.e., decreased reaction time, eyesight issues, physical limitations)?

Very aware ___5 ___4 ___3 ___2 ___1 Not at all aware

19. How likely are you to attend a driver safety or awareness program geared to older adults?

Very likely ___5 ___4 ___3 ___2 ___1 Very unlikely

20. What are some issues you see in the TRANSIT/TRANSPORTATION area as you age?
- _____
- _____

HEALTH, NUTRITION AND SUPPORTIVE SERVICES:

21. Do you currently have a health care provider that you see on a regular basis?

___ YES ___ NO

22. How likely will a chronic health condition (diabetes, COPD, asthma, heart disease, arthritis, etc.) affect your ability to remain independent as you age?

Very likely ___5 ___4 ___3 ___2 ___1 Very unlikely

23. How likely would you be to access information on local services for older adults, if it were available in a single place?

Very likely ___5 ___4 ___3 ___2 ___1 Very unlikely

24. How likely are you to use home and community based services as you age? (Home and community based services include: home delivered meals, home health, personal care, hospice, help with daily living tasks, etc.)

Very likely ___5 ___4 ___3 ___2 ___1 Very unlikely

If likely, please check the services you might use:

___ Home delivered meals ___ Home health ___ Personal care
 ___ Hospice ___ Help with daily living tasks
 ___ Whatever I needed at the time

25. How likely are you to use an exercise program tailored to older adults?

Very likely ___5 ___4 ___3 ___2 ___1 Very unlikely

26. How likely are you to use wellness information programs (nutrition, exercise, mental health/memory) tailored to older adults if available?

Very likely ___5 ___4 ___3 ___2 ___1 Very unlikely

27. How likely are you to access preventive vaccinations (such as flu shots) and screenings (such as mammograms, blood sugar testing) as you age?

Very likely ___5 ___4 ___3 ___2 ___1 Very unlikely

28. How likely are you to use any of the following community food offerings such as food stamps, food pantries, shopping assistance, meals at the senior center, or home delivered meals as you age?

Very likely ___5 ___4 ___3 ___2 ___1 Very unlikely

If likely, please check which offerings you would consider:

___ Food Stamps ___ Food Pantries ___ Shopping Assistance
 ___ Meals at the Senior Center ___ Home Delivered Meals
 ___ Whatever I qualified for and needed at the time

29. How likely are you to live in an assisted living facility (housing with services) sometime in your life?

Very likely ___5 ___4 ___3 ___2 ___1 Very unlikely

If **unlikely**, why? _____

30. If you plan to live with family members or age in your own home, how likely are you to utilize services if needed?

Very likely ___5 ___4 ___3 ___2 ___1 Very unlikely

If **unlikely**, why? _____

31. How likely are you to be a caregiver to a family member as you age?

Very likely ___5 ___4 ___3 ___2 ___1 Very unlikely

If likely, what capacity could you handle (24/7, part time, a few hours/week)?

If **unlikely**, why not? _____

32. As a caregiver, how likely are you to utilize ADULT DAY CARE (part time care on a regular basis)?

Very likely ___5 ___4 ___3 ___2 ___1 Very unlikely

33. As a caregiver, how likely are you to utilize RESPITE CARE (relief care as needed)?

Very likely ___5 ___4 ___3 ___2 ___1 Very unlikely

34. What are some issues you see in the HEALTH, NUTRITION AND SUPPORTIVE SERVICES area as you age?

RECREATION AND LEISURE TIME ACTIVITIES:

35. How likely is it that Grand Forks will be to able to provide the type of recreation you will want as you age?

Very likely ___5 ___4 ___3 ___2 ___1 Very unlikely

If **unlikely**, why? _____

36. List recreation that interests you now and may interest you as you age:

Now: _____

As you age: _____

37. How likely are you to take part in lifelong learning opportunities such as Osher Lifelong Learning Institute, Community Education, Elderhostels?

Very likely ___5 ___4 ___3 ___2 ___1 Very unlikely

38. How likely are you to stay up to date with technology as you age?

Very likely ___5 ___4 ___3 ___2 ___1 Very unlikely

39. How likely are you to be able to afford educational opportunities in the community as you age?

Very likely ___5 ___4 ___3 ___2 ___1 Very unlikely

40. How likely are you to utilize a fitness center geared to older adults?

Very likely ___5 ___4 ___3 ___2 ___1 Very unlikely

If unlikely, why? _____

41. How likely is it that the Grand Forks art and culture scene will meet your needs as you age?

Very likely ___5 ___4 ___3 ___2 ___1 Very unlikely

42. How likely is it that you will be able to afford to attend cultural events in the community as you age?

Very likely ___5 ___4 ___3 ___2 ___1 Very unlikely

43. How likely is it that you would be interested in intergenerational (all ages involved) programs or activities as you grow older?

Very likely ___5 ___4 ___3 ___2 ___1 Very unlikely

44. What are some issues you see in the RECREATION area as you age?

EMPLOYMENT AND CIVIC ENGAGEMENT(Volunteering):

45. At what age did you retire? _____
OR what age do you plan to retire from paid work? _____

46. If you plan to work past expected retirement age, why?

_____ Work is satisfying to me _____ I can't afford to retire
_____ Other, please list _____

47. How likely do you think it is you will need accommodations made for you (such as a flexible schedule, new job training or retraining, employment assistance), if you work or volunteer in later life?

Very likely ___5 ___4 ___3 ___2 ___1 Very unlikely

48. Do you currently volunteer? _____ YES _____ NO

49. How likely are you to volunteer _____ YES _____ NO

Very likely ___5 ___4 ___3 ___2 ___1 Very unlikely

50. How likely are you to volunteer after age 75?

Very likely ___5 ___4 ___3 ___2 ___1 Very unlikely

51. How likely are you to volunteer after age 85?

Very likely ___5 ___4 ___3 ___2 ___1 Very unlikely

52. How likely is it that Grand Forks has or will have volunteer opportunities that will interest you as you age?

Very likely ___5 ___4 ___3 ___2 ___1 Very unlikely

If unlikely, what would you like to see?

53. What are some issues you see in the EMPLOYMENT AND CIVIC ENGAGEMENT(volunteering) area as you age?

TAXATION AND FINANCE:

54. How concerned are you about how housing costs (taxes, rent, utilities) will affect your choice to remain in your home setting?

Very concerned ___5 ___4 ___3 ___2 ___1 Not at all concerned

55. How concerned are you that you may fall victim to financial fraud or predatory lending as you age?

Very concerned ___5 ___4 ___3 ___2 ___1 Not at all concerned

56. How likely are you to need help with your tax forms, bill paying or money management as you age?

Very likely ___5 ___4 ___3 ___2 ___1 Very unlikely

57. How likely are you to be able to afford this help?

Very likely ___5 ___4 ___3 ___2 ___1 Very unlikely

58. What are some issues you see in the TAXATION AND FINANCE area as you age?

PUBLIC SAFETY (Police, Fire, Emergency Medical Services):

59. How safe do you think our community is for you as you age?

Very safe ___5 ___4 ___3 ___2 ___1 Very unsafe

If **unsafe**, why? _____

60. How reluctant are you to contact 9-1-1 emergency services due to potential costs?

Very reluctant ___5 ___4 ___3 ___2 ___1 Not at all reluctant

61. How likely are you to utilize programs such as Home Safety, Smoke Detention and Fire Prevention Education, Personal Safety and Neighborhood Watch?

Very likely ___5 ___4 ___3 ___2 ___1 Very unlikely

Please check the programs you would be most interested in:

Home Safety Neighborhood Watch
 Smoke Detention and Fire Prevention Education
 Personal Safety

And now a little about yourself:

63. Sex: Male Female

64. Please state your age? _____

65. Race: White/Caucasian American Indian
 African American Asian
 Hispanic Other

66. Martial Status: Single Married Divorced Widowed

67. Please check all the community organizations you participate in:

- Religious/Church
 Service clubs such as Kiwanis, Lions
 Retirement organizations such as senior centers, AARP
 Military organizations (VFW, American Legion, etc.)
 Fitness centers (YMCA, Center Court, etc.)
 Hobby themed clubs (Prime Steel, Model Railroading, Quilters, etc)

68. Do you plan to or have you retired in the Grand Forks area?

Yes No

69. Please estimate your current annual household income?

\$ _____

70. Please check your sources of income (check all that apply):

Social Security Savings Retirement Pension
 Work earnings Other: please specify- _____

71. Please check your highest education level?

- Not a high school graduate
 High school graduate
 Bachelor degree
 Master's degree
 Doctorate

Thank you for your time and effort in completing this survey. Surveys should be returned in the self addressed stamped envelope to Colette Iseminger, Greater Grand Forks Senior Citizens Association, 620 4th Ave. South, Grand Forks, ND 58201.

APPENDIX C**Door Prize Registration Form (sample)**

NAME _____

ADDRESS _____

PHONE _____

NEED NOT BE PRESENT TO WIN

APPENDIX D

Survey Results For All Questions

Area & Question Number	N	Mean	SD
Housing			
Q1-Likely to remain in current home after retirement	111	4.30	1.37
Q2-Likely current housing will be affordable as you age	114	3.94	1.26
Q3-Utilizing housing with services	113	3.36	1.38
Q4-Making modifications to house	115	2.86	1.69
Q5-Ability to afford these modifications	108	3.31	1.39
Q6-Likely to live in housing connected/nearby services	112	3.42	1.42
Q7-Likely that you will remain in GF after retirement if desirable housing were available	112	4.28	1.22
Q8-Likely to live in housing for a variety of ages	112	2.75	1.51
Q9-Likely to live in housing for peer group only	112	3.42	1.41
Transportation and Infrastructure			
Q11-How confusing is signage	115	1.83	1.09
Q12-Satisfied street design will meet your needs	115	3.79	1.10
Q13a-Likely to walk to businesses in summer	114	3.17	1.69
Q13b-Likely to walk to businesses in winter	115	1.85	1.39
Q14-Likely public transit options will meet needs	115	3.52	1.23
Q15-Ability to afford this transportation	113	3.57	1.24
Q16-Likely to rely on others to drive you	114	3.45	1.36
Q17-Accessing public transit	114	3.46	1.42
Q18-Aware of challenges for older adults drivers	115	4.37	1.06
Q19-Attending driver's safety program	114	3.75	1.51
Health, Nutrition & Support Services			
Q21-Do you have a healthcare provider	115	1.17	0.44
Q22-Chronic health condition affecting independence	115	3.42	1.41
Q23-Likely to access information from a single place	114	3.90	1.33
Q24-Using home/community based services	115	3.96	1.29
Q25-Using exercise program for older adults	115	4.98	1.90
Q26-Using wellness information	115	3.75	1.40
Q27-Accessing preventive health measures	114	4.59	1.06
Q28-Using community food offerings	115	3.66	1.51
Q29-Likely to live in assisted living	115	3.19	1.37
Q30-Utilizing services in home	115	3.43	1.62
Q31-Likely to be a caregiver	114	2.77	1.67

Appendix D: Continued

Area & Question Number	N	Mean	SD
Q32-Utilizing Adult Day Care as caregiver	115	2.30	1.67
Q33-Utilizing respite care as caregiver	114	2.52	1.76
Recreation			
Q35-Likely GF will provide recreation you want	115	3.55	1.31
Q37-Likely to take part in lifelong learning	114	2.60	1.47
Q38-Likely to stay up to date with technology	115	3.18	1.42
Q39-Likely to afford educational opportunities	115	3.05	1.46
Q40-Likely to utilize fitness center	115	3.32	1.54
Q41-Likely that GF art/culture will meet needs	112	3.61	1.34
Q42-Ability to afford cultural events	115	3.37	1.44
Q43-Interested in intergenerational programs	114	3.29	1.35
Employment & Civic Engagement			
Q47-Likely you will need accommodations	114	2.25	1.75
Q48-Do you currently volunteer	115	1.31	0.58
Q49-Likely to volunteer after age 65	113	3.55	1.73
Q50-Likely to volunteer after age 75	115	3.14	1.64
Q51-Likely to volunteer after age 85	115	2.22	1.42
Q52-Likely that GF will have volunteer opportunities that will interest you	114	3.54	1.59
Taxation and Finance			
Q54-Concern about housing costs	115	3.82	1.48
Q55-Concern about financial fraud or predatory lending	115	2.82	1.48
Q56-Likely to need help with taxes, money management	115	3.29	1.53
Q57-Ability to afford this financial help	115	3.03	1.52
Public Safety			
Q59-Safety of community	115	4.09	1.00
Q60-Reluctance to call 911	115	1.90	1.41
Q61-Utilization of home and personal safety programs	113	3.81	1.29
Q62-Likely that elder abuse might be an issue for you	113	2.52	1.55