

**An Exploratory-Descriptive Study of Factors
That Influence Movement Into
Long Term Care Services and to a
Higher Level of Care**

**South Carolina
Department of Health and Human Services**

**PREPARED FOR
THE UNIVERSITY OF SOUTH CAROLINA
COLLEGE OF SOCIAL WORK**

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EXECUTIVE SUMMARY

The purpose of this study is to explore and describe the personal and social factors that may influence responses to the inevitable physical changes that come with maturity. The responses can determine when and to what degree long term care is necessary. The project also begins the process of developing measurements of these factors which can lead to interventions designed to delay or prevent movement into long term care. The methodology assumes that the seniors understand best their own experiences and how those experiences relate to their daily lives. This project therefore embodies a participatory approach to exploration and description.

The methodology consisted of three phases. Phase One was designed to determine what the important themes are in the experiences of seniors that may influence their need for long term care. To accomplish this, a series of mental modeling interviews were conducted with seniors. The transcripts of these interviews were analyzed to determine themes and the themes organized into domains. In addition, a previous report in this series (“Issues That Help Determine When and If Elderly and Disabled Persons Move to a Higher Level of Care”) was reviewed and findings of that report used in identifying the experiences of seniors. Phase One resulted in the development of a number of themes that fall into five domains. These domains are: sense of control, social connectedness, feelings of loss, physical health and transportation.

The themes and the domains into which they fall that were developed in Phase One provided the material to move to Phase Two of the project, quantification. Quantification was carried out using a survey instrument designed by the project team and analyzing the results of the survey. There were four purposes of the survey and the analysis. The first was to determine what the experiences of a representative sample of seniors are with each domain. The second was to determine if there are differences among demographic groups in the experience with the different domains. The third was to determine how the domains relate to one another. The fourth was to relate the other four domains to the physical health domain. Phase Three, a literature review to provide context for the study, was then completed.

It is abundantly clear from the findings of the study that the concepts of volume of control, financial control, social connectedness and feelings of loss have a strong influence on the ability to overcome health problems and continue daily activities when one has a chronic health problem. It is also clear that the ability to drive oneself in turn is associated with the four concepts. The next steps in utilizing this influence to prevent or delay entry into long term care or moving to a higher level of care is to understand the relationships more clearly and turn that understanding into action.

Pursuing the questions that have arisen from this project could have a significant impact on the delivery of long term care services. Among the most salient questions to be answered are:

1. Does a low sense of control, less than desired social connectedness, and more than ordinary intensity of loss precede a reduced ability to overcome chronic health problems and maintain daily activities?

2. What makes the sub-group of low-income, less well-educated seniors who maintain a sense of control different from others in the same circumstances?
3. In what ways can the social connectedness and higher sense of control provided by frequent church attendance be translated for those who do not attend church?
4. Would the same results be obtained from those who will soon move into this age group (the Baby Boomers)?
5. Does the relative social isolation of men have an impact on their ability to overcome chronic health problems?
6. What specific interventions can be developed to make use of the knowledge gained to reduce the need for long term care?
7. In what ways can the symbolic nature of driving oneself be transferred when one can no longer drive to avoid reductions in a low sense of control and reductions in the other domains?

Four recommendations are made. These are:

1. Design a project to answer the questions raised under Conclusions. Include continuing analysis of the data already gathered.
2. Work with Senior Services to develop low-cost pilot programs to develop low-cost interventions that make use of the information from this study.
3. Conduct additional survey work with Baby Boomers.
4. Examine alternative transportation systems that meet the symbolic as well as the practical needs of those who cannot drive.

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INTRODUCTION

The University of South Carolina, College of Social Work entered into an agreement on July 1, 2003 with the South Carolina Department of Health and Human Services (SC DHHS) to support the Bureau of Long Term Care. The agreement contains three overarching objectives:

1. To determine specific methods for eliminating or delaying the entry into Medicaid funded long term care by seniors.
2. To determine specific methods for eliminating or delaying the entry into a higher level of care on the part of those seniors who do receive Medicaid funded long term care.
3. To provide quality assurance activities for the long term care waivers of the SC DHHS.

The College of Social Work (COSW) contracted with System Wide Solutions, Inc. (SWS), a firm that specializes in social science research and consultancy, to provide expertise and guidance in the process of carrying out the work. This report covers Project Four of the work plan. The report explores the factors that influence seniors from moving to a higher level of care through an empirical analysis of exploratory data obtained for the purpose. This report presents a background of the study, describes the missions of the stakeholders, specifies the purpose of the study, presents an overview of the methodology and describes conclusions and recommendations based on the findings.

The South Carolina Medicaid Program

The South Carolina Medicaid program is the health insurance program for more than 800,000 poor, disabled and elderly citizens. The program is jointly funded by the state of South Carolina and the federal government for a total of about \$3.7 billion each year. The state receives approximately three service dollars for each service dollar it provides. The program contracts with more than 40,000 care providers.

The work done by the SC DHHS is reflected in its mission statement which is "...to provide statewide leadership to most effectively utilize resources to promote the health and well-being of South Carolinians." The agency fulfills its mission by "planning, setting policy, pursuing resources, developing programs, building partnerships, providing program oversight, and ensuring fiscal accountability to promote an accessible system of quality health and human services."

The Bureau of Long Term Care

The Bureau of Long Term Care within the SC DHHS is responsible for operating and/or administering Medicaid funded long term care services in South Carolina. This includes both home and community based services and nursing facility services.

The Bureau operates home and community-based waiver programs under the name of Community Long Term Care (CLTC) for persons eligible for nursing home care who prefer to

receive their services in the community. Through a process of case management and an individualized service package, waiver clients are able to successfully remain at home at a cost to Medicaid that is substantially less than the cost of institutional care. The CLTC program began statewide in 1983 after a three-year pilot program in the Upstate. CLTC administers and operates four Medicaid waiver programs: Elderly/Disabled Waiver; HIV/AIDS Waiver; Ventilator Dependent Waiver; and Choice Waiver. CLTC also administers two waivers that are operated by the Department of Disabilities and Special Needs: the Head and Spinal Cord Injury (HASCI) and Mental Retardation or Related Disabilities (MR/RD) waivers.

The Bureau also administers Medicaid funded nursing facility services and services associated with nursing facility level of care. These include: Intermediate Care Facilities-Mental Retardation (ICF/MR) services; swing bed services; SC Nurse Aid Program; the Preadmission Screening and Resident Review (PASARR) Program; the Hospice Program; the Optional State Supplementation (OSS) Program; the Integrated Personal Care Program; and the Home Health Program.

Purpose of the Study

The purpose of this study is to explore and describe the personal and social factors that may influence responses to the inevitable physical changes that come with aging. The responses can determine when and to what degree long term care is necessary. The project also begins the process of developing measurements of these factors which can lead to interventions designed to delay or prevent movement into long term care. The methodology assumes that the seniors understand best their own experiences and how those experiences relate to their daily lives. This project therefore embodies a participatory approach to exploration and description.

METHODOLOGY

The methodology consisted of three phases. Phase One was designed to determine what the important themes are in the experiences of seniors that may influence their need for long term care. Phase Two consisted of quantifying the themes using a survey instrument designed by the project team and analyzing the results of the survey. Phase Three included a literature review which provides context for the study.

Phase One: Determining Influential Themes

Phase One was designed to determine what the important themes in the experience of seniors are that may influence their need for long term care. To accomplish this, a series of mental modeling interviews were conducted with seniors. The transcripts of these interviews were analyzed to determine themes and the themes organized into domains.

In addition, a previous report in this series (“Issues That Help Determine When and If Elderly and Disabled Persons Move to a Higher Level of Care”) was reviewed and findings of that report used in identifying the experience of seniors.

Mental Modeling

Mental modeling is a qualitative research approach that uses in-depth semi-structured interviews with individuals to help uncover their understanding and perceptions of an issue. Though labor-intensive, mental modeling provides several advantages. It allows for in-depth analyses of not just *what* people know about an issue, but also *how* they think about an issue. That is, advanced forms of mental modeling permit the mapping of constructs and their relationships to one another. So, in addition to cataloging the beliefs people have about a particular issue, it is also possible to examine the source of those beliefs and how those beliefs are connected together to form a cognitive mental model of that issue.

Sampling Strategy

To get a sense of the diversity of mental models held by consumers about their experience that may influence the need for long term care, a multi-level, stratified, purposive sampling approach was used. A random sample of 750 consumers was obtained from the Bureau of Senior Services at the SC Department of Health and Human Services. This list of seniors, also known as Aging consumers, was utilized to identify seniors who had not yet moved to a higher level of care, but who are receiving services from the State. Of these, a random stratified sample of 70 consumers was pulled to be part of the potential group to be interviewed. The 70 were chosen to provide a representative group by age, race, gender, and geographic location.

In addition, a random sample of 1,000 seniors was obtained from USAData¹. This list of seniors was utilized to identify seniors who had not yet moved to a higher level of care, and who are not receiving services from the State. Of these, a random, stratified sample of 50 individuals was selected. The 50 were chosen to provide a representative group by age, race, gender, and geographic location. Another twenty potential subjects for interview who were not on either of the above lists was identified using a “snowball” technique of getting names from persons who knew seniors.

The interviews were conducted by telephone. If the consumer was unable to take part in an interview, an adult responsible party was substituted. The goal was to interview a total of twenty respondents who met the sampling schedule, half from the Aging consumers list and half from the other two lists. A total of twenty potential consumers were interviewed, 13 of whom were from the Aging list, five of whom were from the USAData list, and two of whom were from the “snowball” list.

Procedure

1. Mental Modeling Interviews

An initial letter of introduction was sent about two weeks prior to beginning the interviews. The interviews were conducted by a group of specially trained graduate students. Participation was voluntary and respondents were notified of such. Identifying information was kept strictly confidential. Interviews were tape-recorded and transcribed. Interviews lasted an average of approximately 30 minutes. The letter of introduction and the Interview Schedule may be found in Appendix One.

2. Data Entry

The interviewer’s case notes and recorded interviews were transcribed by the interviewer or by a professional transcriber. Each interview was labeled with a unique survey number to ensure that no identifying information could be found on the transcription.

3. Analysis

A set of coding criteria for themes was developed by two SWS investigators and three graduate students (See Appendix Two). These were developed through an iterative process, in which the two investigators read each of the first five interviews conducted and determined what themes presented themselves. These themes were defined and placed in a coding book. One graduate student and one SWS investigator then read each transcription twice. During these readings, the mentions of the themes were identified and noted. The two investigators and graduate students “staffed” each transcript to reach consensus on the identifications. The findings were entered into an Excel spreadsheet. The themes were ranked using a combination of mentions and number of persons mentioning the theme. A final review was made of all the transcripts and related to the spreadsheet by a third reviewer.

¹ USAData, Inc. New York, NY. Sample Drawn: 2/12/04. <http://www.usadata.com>

4. Review of “Issues That Help Determine When and If Elderly and Disabled Persons Move to a Higher Level of Care”

This report was reviewed by the two SWS investigators. The findings of the report were correlated with the themes developed from the interviews. The themes were expanded upon using this review. The review was especially helpful in developing the specific questions for the survey.

Establishing Domains

The themes identified fall into five domains. These domains are: sense of control, social connectedness, feelings of loss, physical health and transportation. Each domain is described below:

- **Sense of Control:** The first domain is the respondents’ perception of feelings of control from the quantitative (“volume”) and financial points of view. There are five specific themes in the volume of control sub-domain: self-control, sense of loss due to recent changes in the world, control over decision making, sense of recognition and achievement, and finally, existing future aspirations. There are two themes in the financial sub-domain, the sense of present financial security and degree of future concern on financial matters.
- **Social Connectedness:** The second domain is social connectedness of the respondents. Social connectedness has five themes: frequency of personal contact with family members, friends, neighbors, participation in church, and participation in other social activities. Another theme deals with being with other people.
- **Feelings of Loss:** The third domain is feelings of loss and how that loss affects one’s emotional state. The themes are loss of family members, spouse and friends.
- **Physical Health:** The fourth domain is physical health. There are two themes, age-related physical illness and chronic health problems.
- **Transportation:** The fifth domain is the ability to drive.

Phase Two: Quantifying Influences, Determining Demographic Differences and Determining Interaction Among Domains

The themes and the domains into which they fall developed in Phase One provided the material to move to the next step in the project, quantification. Quantification was carried out using a survey instrument designed by the project team and analyzing the results of the survey. There were four purposes of the survey and the analysis. The first was to determine what the experience of a representative sample of seniors is with the domains. The second was to determine if there are differences among demographic groups in the seniors’ experiences with each domain. The third was to determine how the domains relate to one another. The fourth was to relate the other four domains to the physical health domain.

Instrument Design

Two sub-groups (each of which consisted of two project team members) developed items for the survey. These items were presented by each sub-group to the other sub-group and discussed. Items were then re-designed respectively and again presented to all sub-group members. After discussion, a consensus was reached on tentative items for the survey. A draft instrument containing these items was designed and sent to all members of the full project work team for review. Comments were incorporated into the instrument by the team leader. The draft instrument was then forwarded to two faculty members at the College of Social Work at the University of South Carolina along with the reports upon which the items were based. Comments were made by the two faculty members that largely had to do with the format of the instrument. The format was revised and a final instrument produced.

The survey instrument was tested on two groups of senior citizens at the Capital Senior Center in Columbia, South Carolina. These seniors were representative of the target population. Groups were led by an SWS facilitator and graduate students. The groups were first asked to complete the survey instrument as they would have if they had received it in the mail. After each group had finished, the facilitator engaged them in discussion regarding the clarity, understandability, and appropriateness of the questions and the format of the survey as a whole.

Facilitators then discussed what they had learned from the field test. Necessary adjustments were made and the final instrument produced. Face validity was established. A copy of the instrument is included in Appendix Three.

Content of Survey

The content of the survey is divided into six sections, five based on the domains described above and a demographics section. Each section is described below:

- **Sense of Control:** The first survey section measures the domain of respondents' perception of feelings of control from the volume and financial points of view. The volume of control sub-section contains five questions measuring self-control, sense of loss due to changes in the world, control over decision making, sense of recognition and achievement, and finally existing future aspirations. The responses are measured on a 1 to 5 Likert scale. The next sub-section measures the perception of the respondents on their existing and future financial sense of control. This sub-section contains two questions and the responses are measured on a 1 to 5 Likert scale.
- **Social connectedness:** The second survey section broadly measures the level of social connectedness of the respondents. Social connectedness is measured through frequency of personal contact with family members, friends, neighbors, and through participation in church and other social activities. This section contains five questions and the responses are measured on a 1 to 5 Likert scale. Responses from two additional open ended questions are included in this section as they measure the same construct. These two questions ask the consumers where they go most often and second most often to be with other people.

- **Feelings of Loss:** The third survey section refers to the respondents' feelings of loss and how that loss affects their emotional state. Every categorical question asking whether the respondents have lost their family members, spouse or friends is followed by a scale that measures the degree of their emotional loss caused by such a loss on a 1 to 6 item Likert scale. There are three questions that deal with emotional loss.
- **Physical Health:** The fourth section refers to the respondents' physical health. This section consists of two categorical questions asking the respondents whether they have age-related physical illness or a chronic health problem. Each affirmative answer is followed by a 1 to 5 Likert scale measuring the degree of their ability to continue carrying out daily activities.
- **Transportation:** The fifth section refers to the respondents' ability to drive themselves or not. The question also refers to a hypothetical measure where respondents were asked if they lose their abilities to drive in the near future, what kind of alternatives they would prefer. There are two options to respond to, whether to ask someone to give them a ride or whether to use public transportation. Each of these choices are measured on a 1 to 5 Likert scale.
- **Demographics:** The final section of the survey asks the respondent to provide demographic information, such as gender, marital status, education, ethnicity, age, and total household income.

Sampling Strategy

The initial sample from the SC DHHS Bureau of Senior Services held 750 records randomly selected by computer at SC DHHS. This list of seniors, also known as Aging consumers, was utilized in order to interview seniors who had not yet moved to a higher level of care, but who are receiving services from the State. Seventy of these consumers were used for the qualitative study. Of the remaining 680 records, 500 were randomly selected and sent the survey questionnaire.

In addition, a sample was obtained from USAData which held 1,000 records of seniors in South Carolina randomly selected by computer. This list of seniors was utilized in order to interview seniors who had not yet moved to a higher level of care, and who are not receiving services from the State. Fifty were used for the qualitative study. Of the remaining 950 records, 500 individuals were randomly selected and sent the survey questionnaire.

During this quantitative phase of the study, 111 Aging consumers were discovered to be deceased, moved to a nursing home, moved out-of-state or to an unknown location, or otherwise unable to participate in the study. As a result, only the remaining 398 Aging consumers could possibly respond to the survey questionnaire. In addition, 55 respondents from the list obtained from USAData were discovered to be deceased, moved to a nursing home, moved out-of-state or to an unknown location, or otherwise unable to participate in the study. As a result, only the remaining 445 potential individuals from the USAData list could possibly respond to the survey questionnaire. Therefore, there were a total of 843 potential respondents to the survey.

In order to achieve a confidence level of 95% and confidence interval of 5 for the entire population of seniors over 60 years old, a total of 384 responses were necessary. In the cover letter, a responsible party was asked to complete the survey if the consumer was unable to do so. Each survey was coded so that the survey could be tied back to the contact information of the consumer without directly identifying the consumer with their responses. This was done in order to determine who had completed the survey and who could be contacted to complete the survey by telephone. Of the possible 843 responses, a total of 272 surveys were returned by mail. An additional 117 surveys were then completed by telephone to produce a total N of 389.

Procedure

1. Self-Administered Survey

The surveys were distributed by mail to the sample. A stamped, self-addressed envelope was included with the form. A cover letter explained the purpose of the survey, assured confidentiality and informed the senior citizen that they could have a family member or other person familiar with their situation fill out the survey on their behalf. (A copy of the letter may be found in Appendix Four.) Approximately one month after the surveys were mailed, telephone calls were made to persons who had not returned their forms. The potential respondents were asked to allow the survey to be completed by telephone. The surveys were expected to take no more than 10 minutes to complete.

2. Data Entry

A database was constructed and entered in Microsoft Access. Separate, but related, tables were used for contact information and survey responses. This allowed the researchers to maintain the integrity of the data while still being able to determine who had completed the survey and who could be contacted to complete the survey by telephone.

3. Analysis

The Access database was imported into a SPSS file to conduct the statistical analysis. Several different analyses were performed on the data in order to determine statistical importance, including frequencies, cross-tabulations, t-tests, correlations and chi-square. Tables and graphs were also developed in SPSS, then exported to an Excel format to ease editing and printing.

Phase Three: Conceptual Analysis

A review of the literature was conducted to provide greater depth to the study. The literature identifies three streams of relevant research: field experiments, large-scale epidemiological studies, and quasi-experimental studies that provide considerable evidence for age-related factors affecting the sense of control as older adults proceed through the life course and encounter more

control-restricting circumstances. Schulz, Heckhausen and Locher² concluded that there is little evidence that generalized beliefs about control change with advancing age, suggesting that observed age-related differences reflect cohort rather than age effects. In contrast Milrowsky³ reported a negative relationship between age and sense of control, consistently finding an accelerating decline when older adults reach their fifth decade.

Though the literature differs while drawing an association between the sense of control and age as such, there is no denying the fact that such an association is critical for understanding factors responsible for seniors moving to a higher level of care. The literature equivocally indicates, though, that individuals with a lower sense of self-control take less responsibility for their health and are more likely to exhibit negative health behavior. Thus the variable sense of control attains significance in understanding the deteriorating health conditions among seniors and forms the overarching question for this study. The conceptual definition of sense of control is multidimensional. It touches upon various other factors that influence the overall loss of control, which results in deterioration of health conditions. As this happens seniors are more likely to become consumers of higher levels of care.

The literature further states that any relationship between health and sense of control among seniors results from multiple sets of factors: (a) the volume of control, (b) the perception of financial control, (c) the level of social connectedness and subsequent social control, (d) the sense of personal loss and (e) the deterioration of functional and biomedical health status. These factors, when negatively associated, could enhance control-restricting circumstances and vice-versa. Studying these factors independently is important to prevent seniors from moving to a higher level of care. The following paragraphs describe the interplay of each of these factors with the primary objective of the present study.

Volume of Control: A sense of control towards successful aging has been repeatedly identified as an important factor in emotional well-being.⁴ Earlier studies on the emotional implications of perceived control have focused on how perception of control relates to negative health affect. The findings of past research lend support to the claim that personal control over desirable outcomes is associated with high emotional well-being.⁵ Kunzmann et al⁶ further proclaims that for people with a positive self-concept that emphasizes the possibility of positive changes and personal growth, a belief of personal responsibility for undesirable outcome may even suggest the potential for control over similar outcome in the future. One of the important variables that influences the emotional control is the perceived other's control or the perception that one is controlled by other people or circumstances more than their own selves.⁷ Pfeiffer and Fifield⁸ found that perceived other's control over symptoms was associated with negative mood in

² Schulz, R., Heckhausen, J., & Locher, J. (1991). Adult development, control and adaptive functioning. *Journal of Social Issues*, 47, 77-196.

³ Milrowsky, J. (1995). Age and sense of control. *Social Psychology Quarterly*, 58, 31-43.

⁴ Lachman and Weaver, 1998

⁵ DeNeve and Cooper, 1998

⁶ Kunzmann, U., Little, T., and Smith, J. (2002). Perceiving control: A double-edged sword in old age. *Journal of Gerontology: Psychological Sciences*, 57B (6), P484-P491.

⁷ Ibid.

⁸ Pfeiffer and Fifield, 1987

patients with rheumatoid arthritis. Helgeson, Reed, and Skokan⁹ reported that perceived other's control was negatively associated with psychological adjustment in a sample of 24 men diagnosed with HIV infection. Thus loss of emotional self-control and increase in perceived other's control create a sense of social dependency that further contributes to low emotional well-being.

Financial Control: Research has found consistently that lower socioeconomic status (SES) and increasing financial worries are related to worse physical health outcomes. An earlier onset of health limitations and faster rate of decline in functional ability are highly correlated especially among people with low SES.¹⁰ Compared with their wealthier counterparts, seniors from lower SES backgrounds tend to perceive life in a more temporary compressed form with no definite sense of control over their future financial security.¹¹ Rosow¹² has argued that occupying lower socio-economic strata and subsequent financial worries produce a more rapid rate of physiological aging. Hence, slender financial control and negative perception on future financial security among the senior population can lead deterioration of health matters.

Social Connectedness and Social Control: There have been some suggestions in the literature¹³ indicating that the individuals who are socially integrated are more likely to remain healthy and show better health and greater longevity than those who are not socially integrated. Furthermore, social control theory proposes that relationships serve a regulatory function such that socially connected individuals indulge less in behaviors and thoughts that could negatively affect their health. According to Rook et al¹⁴ the social control of health behavior operates in two basic ways; firstly, direct social control involves positive connectedness with significant others that prompt individuals to maintain a good health, and secondly, indirect social control involves positive reinforcement from social network members. Moreover, a positive social network very often acts as a social support system for the seniors. Social support associates positively with the frequency of contacts with network members.¹⁵ The literature also identifies one of the consequences of severe mood disorder and depression, which leads to various health problems for the senior citizens, can result from social withdrawal and more negative perception of social support. In addition, social support is frequently associated with less impairment in activities of daily living in elderly persons.¹⁶

Personal Loss: Past research has claimed that widowhood is among the most stressful of all life events and requires more psychological and behavioral adjustment than any other life transition.¹⁷ Bereavement studies inform us that loss of spouse, close friends, or relatives can

⁹ Helgeson, Reed, and Skokan, 1991

¹⁰ House et al. 1994

¹¹ Barret, A. E. (2003). Socioeconomic status and age identity: the role of dimensions of health in the subjective construction of age. *Journal of Gerontology: Social Sciences*, 58B (2), S101-S109.

¹² Rosow, 1967

¹³ Tucker, J. S. (2002). Health related social control within older adults' relationships. *Journal of Gerontology: Psychological Sciences*, 57B (5), P387-P395.

¹⁴ Rook et al.

¹⁵ Oxman and Berkman, 1990

¹⁶ Cummings, et al. 1988

¹⁷ Berret and Schnewis, 1980

generate severe emotional, psychological and behavioral response among the elderly.¹⁸ Adjustment to the new realities after a long association with a person becomes very challenging for the survivor. Especially in the context of spouse loss, the survivor goes through an identity transition from a married person to a widow(er). In response to this identity transition, bereaved persons may realign with their existing social network and involve in social activities. But in many cases the loss remains inward and converts into acute depression, loneliness and a sense of personal loss that aggravate deterioration of their own health.

Chronic Illness: Negative aging effects like chronic biomedical illnesses seriously impair everyday functioning for the elderly. Previous research¹⁹ shows that older individuals who report chronic biomedical illnesses exhibit larger negative age trends. Everyday functioning depends on older individuals' adaptation to the demands and tasks of everyday life. The illnesses create an impediment in that adaptation and isolate the person from participating in social, regenerative and constructive life activities.

Furthermore, substantial disparities in health exist between blacks and whites, males and females, highly educated and less highly educated, and among people with different household incomes.²⁰ The reasons for these disparities are debatable, but most attention has been focused on structural inequalities in income, employment and education that are large and unfavorable for minority populations, especially African-Americans.²¹ Moreover, looking at these factors could indicate structural discriminatory influences that work negatively in development of health and well being of large sections of minority population. Thus, a comprehensive review of literature indicates that emotional, social, financial, personal, physical and demographic determinants coalesce together to bring about positive or negative health outcomes for the senior citizens. When these determinants are positively correlated, they generate well being, good health, longer active life and divert the traffic towards a higher level of care; they do otherwise when they are negatively correlated.

Phase Four: Determining Meaning

Subsequent to the analysis of the data, a series of discussions was held among the study team members. The discussions centered around the interpretation of the findings of the study to determine the meaning of the findings in relation to one another and to the possible causes of movement to a higher level of care. Upon the completion of these discussions, a draft report was completed with the following elements:

- Executive Summary
- Introduction

¹⁸ Utz, R. L., Carr, D., Nesse, M. D., and Wortman, C. (2002). The effect of widowhood on older adults' social participation: An Evaluation of activity, disengagement, and continuity theories. *The Gerontologist*, 42 (4), 522-533.

¹⁹ Lang, F. R., Rieckmann, N., Baltes, M. M. (2002). Adapting to aging losses: do resources facilitate strategies of selection, compensation and optimization in everyday functioning? *Journal of Gerontology: Psychological Sciences*, 57B (6), P501-P509.

²⁰ U. S Department of Health and Human Services, 2000

²¹ Supra Note 19

- Methodology
- A presentation of the findings
- A discussion of the findings
- Conclusions based on the findings
- Specific recommendations based on the conclusions

Limitations

The instrument has been designed to measure the factors that influence this particular population. During the instrument design process, reliability and validity issues were addressed conceptually; statistical procedures were not utilized until after survey responses were compiled. Therefore, this instrument cannot be designated as a standardized instrument.

The sample of seniors utilized both during the interview process and the survey process was obtained from two different sources. A cross-check was performed to ensure that no seniors were on both lists. However, there is a possibility that some of the seniors on the list from USAData are also in the database at the Bureau of Senior Services. An attempt was made to contact Senior Services to verify which of the surveyed seniors are receiving services and to get an updated list of services the seniors are receiving. Due to the movement of the Bureau and changes in State government, this attempt was unsuccessful. Therefore, it can not be determined with any certainty which of the seniors in the sample are receiving services and which are not. Therefore, analyses were not conducted to determine the differences between seniors receiving senior services and seniors who are not receiving senior services.

In addition, although the sample was drawn using stratified sampling methods, survey respondents were self-selected. This means that although efforts were made to obtain a representative sample, the sample is skewed according to those people who chose to complete the survey. This limits the degree to which the sample represents the population of senior citizens as a whole.

Finally, the definitions of household income used in the survey for this study may be asked in a somewhat different fashion than that used by the Census Bureau. As a result, household income figures for the survey findings and the general senior population may not be precisely parallel.

FINDINGS

The findings for this survey were analyzed using a series of steps. First, a test to determine the reliability of the instrument was conducted. Second, the method of obtaining survey responses was reviewed. Third, the survey respondents were identified and statistical analyses were run to determine the extent to which the sample is representative of the population. To verify that the sample is representative of the population, the demographic characteristics of the survey respondents were reviewed and compared to overall population data. Fourth, survey responses were then analyzed in order of the domain under which they fall. The domains are Control (Volume and Financial), Social Connectedness, Feelings of Loss, Physical Health, and Transportation. In each domain, frequency counts were reviewed for each survey question. An index was then created for each domain, and index scores were compared to demographic variables. Finally, the indices are compared to each other and to demographic variables.

Instrument Reliability

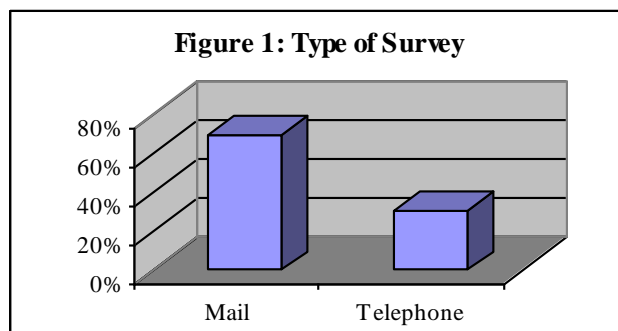
A test of reliability was conducted to determine if respondents would respond the same way to the questions if they were surveyed again. The reliability scale was estimated using a measure of internal consistency, coefficient alpha. This test based on the responses to the survey, establishes a reliability of 0.598. This means that almost 60% of the sample would respond in the same manner if they were administered this survey again. Due to the tendency of this population to not respond to certain questions, a “No Response” was considered as a response for this analysis.

Type of Survey and List Source

The type of survey and list source of survey respondents is reviewed to ensure consistency with the methodology plan and integrity of the data.

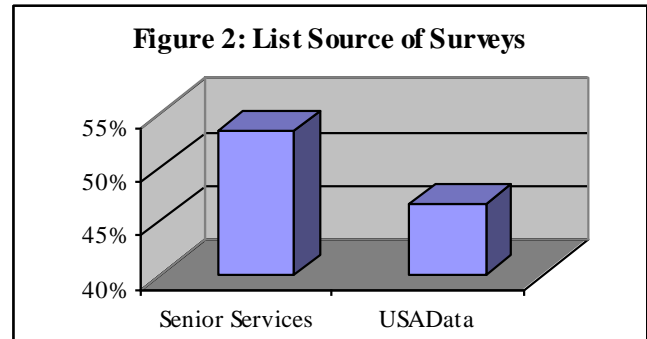
Of the 389 completed surveys, 272 of these (69.9%) were returned by mail and 117 (30.1%) were completed by telephone. (See Table 1 and Figure 1.)

Table 1: Type of Survey		
	#	%
Mail	272	69.9%
Telephone	117	30.1%
Total	389	100.0%



Of the 389 completed surveys, 208 surveys (53.5%) were returned from the list obtained from the Bureau of Senior Services, and 181 surveys (46.5%) were returned from the list obtained from USAData. (See Table 2 and Figure 2.)

	#	%
Senior Services	208	53.5%
USAData	181	46.5%
Total	389	100.0%



Survey Respondents and Representation of the Population

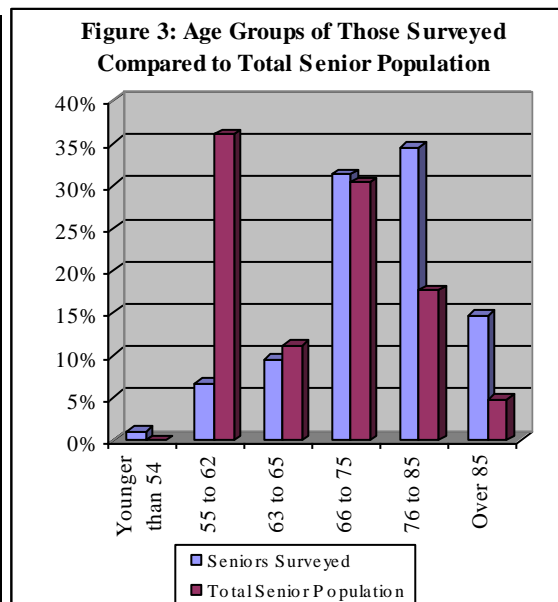
A total of 389 respondents out of the possible 843 responded to the survey, which is a response rate of 46%. The total population of potential Medicaid consumers aged 60 or over was 651,482 people in 2000. Based on this information, the confidence interval for this data is 4.97 points at a 95% confidence level. Therefore, there is a very high probability that the survey findings presented in this report represent the responses that can be expected from all seniors (plus or minus 5 percentage points).

Statistics on the demographics of the senior population in South Carolina were obtained from the 2000 Census Data.²² The majority of the statistics are based on seniors ages 55 and over. It is noted as such when the demographic statistics are based on other group(s).

The age groups of the survey respondents vary slightly from the age groups of the total senior population in South Carolina. The percentage of persons between the ages of 63 and 65 responding to the survey is 9.5%, which is very similar to the 11.1% of the senior population that this age group represents. Approximately 31.4% of seniors responding to the survey are between the ages of 66 and 75, which is very similar to the 30.4% of the senior population that this age group represents. However, 14.7% of survey respondents were over 85 years of age, which is somewhat greater than the 4.8% that this age group represents in the senior population. The largest differences are with the age group 55 to 62 years old and 76 to 85 years old. The 55 to 62 year old age group is represented by only 6.7% of the survey respondents, while it comprises approximately 36.1% of the senior population. In addition, the 76 to 85 year old age group is represented by 34.4% of the survey respondents, while it comprises only 17.6% of the senior population. (See Table 3 and Figure 3.)

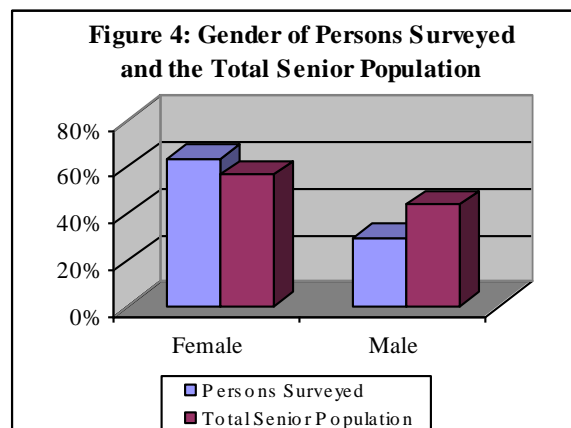
²² *Census 2000 Detailed Data Tables*. US Census Bureau. <http://factfinder.census.gov>. Last Accessed: July 13, 2004.

Table 3: Age Groups of Those Surveyed Compared to Total Senior Population				
	Seniors Surveyed		Total Senior Population	
	#	%	#	%
Younger than 54	4	1.0%	-	-
55 to 62	26	6.7%	309,562	36.1%
63 to 65	37	9.5%	95,516	11.1%
66 to 75	122	31.4%	260,834	30.4%
76 to 85	134	34.4%	151,054	17.6%
Over 85	57	14.7%	41,278	4.8%
No Response	9	2.3%	-	-
Total	389	100.0%	858,244	100.0%



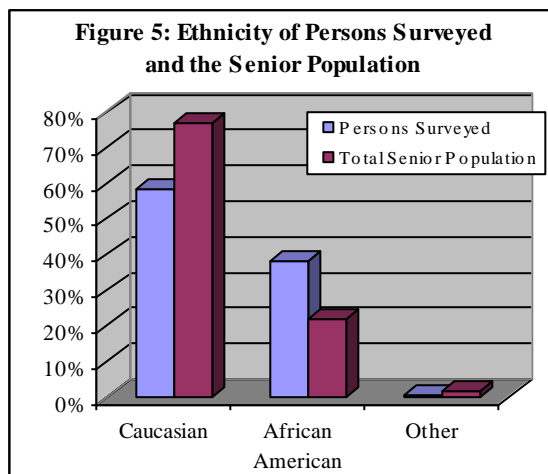
The gender of the survey respondents is somewhat similar to the gender of the total senior population in South Carolina. Approximately 29.6% of survey respondents are male, whereas 43.6% of seniors in South Carolina are male. Approximately 63.5% of survey respondents are female, whereas 56.4% of seniors in South Carolina are female. (See Table 4 and Figure 4.)

Table 4: Gender of Persons Surveyed Compared to the Total Senior Population				
	Persons Surveyed		Total Senior Population	
	#	%	#	%
Male	115	29.6%	374,439	43.6%
Female	247	63.5%	483,805	56.4%
No Response	27	6.9%	-	-
Total	389	100.0%	858,244	100.0%



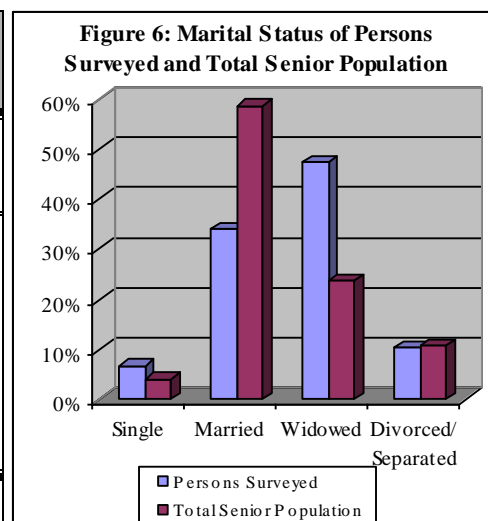
Slightly more African-Americans responded to the survey (38.3%) than are represented in the senior population as a whole (21.8%). Slightly less Caucasians responded to the survey (58.4%) than are represented in the senior population (76.9%). Only one person (0.3%) reported being an ethnicity other than African-American or Caucasian, whereas other ethnicities represent 1.3% of the senior population in South Carolina. (See Table 5 and Figure 5.)

Table 5: Ethnicity of Persons Surveyed and the Total Senior Population				
	Persons Surveyed		Total Senior Population	
	#	%	#	%
Caucasian	227	58.4%	659,675	76.9%
African-American	149	38.3%	187,070	21.8%
Other	1	0.3%	11,499	1.3%
No Response	12	3.1%	-	-
Total	389	100.0%	858,244	100.0%



The marital status of survey respondents is very similar to the marital status of the senior population as a whole. Approximately 6.7% of survey respondents are single, compared to 4% of the total senior population. Another 10.3% of survey respondents are divorced or separated, compared to 10.6% of the total senior population. The only slight difference is in the percentage of married respondents (33.9%) to married seniors in the population (58.6%), and a corresponding difference in widowed respondents (47.3%) to widowed seniors in the population (23.7%). (See Table 6 and Figure 6.)

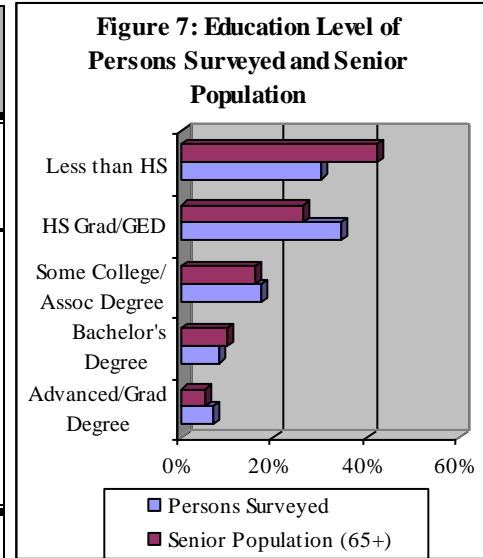
Table 6: Marital Status of Persons Surveyed Compared to the Senior Population				
	Persons Surveyed		Total Senior Population	
	#	%	#	%
Single	26	6.7%	34,007	4.0%
Married	132	33.9%	502,972	58.6%
Widowed	184	47.3%	203,329	23.7%
Divorced/Separated	40	10.3%	91,245	10.6%
No Response/Unknown	7	1.8%	26,691	3.1%
Total	389	100.0%	858,244	100.0%



Information on the educational attainment of the senior population in South Carolina was only available for seniors ages 65 and over. Therefore, the percentages of the senior population for comparison are based on a total population of 485,845. The educational attainment of survey respondents is similar to the educational attainment of the senior population. Approximately 30.3% of survey respondents have less than a high school education, compared to 42.3% of the population. Another 34.4% of survey respondents graduated from high school or have a GED compared to 26.2% of the population; 17.5% of respondents have attended some college or received their Associate's degree compared to 16% of the population; 8.2% of respondents have received a Bachelor's degree compared to 10.1% of the population; and 7.2% of respondents

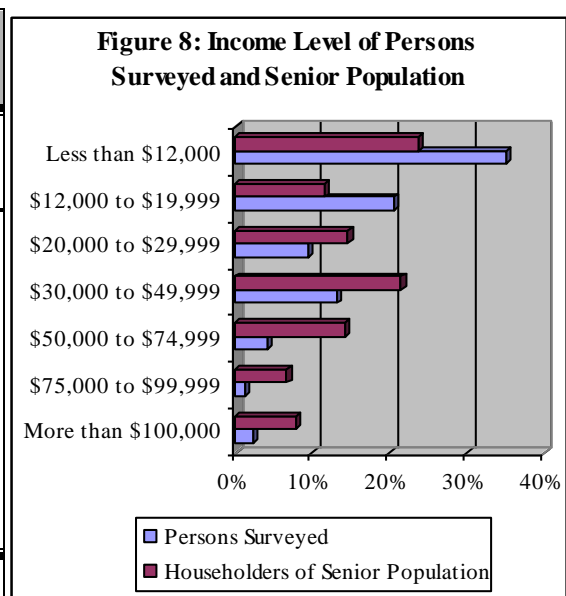
have received an advanced or Graduate degree compared to 5.4% of the population. The remaining 2.3% of respondents did not answer this question. (See Table 7 and Figure 7.)

Table 7: Education Level of Persons Surveyed and Senior Population (65+)				
	Persons Surveyed		Senior Population (65+)	
	#	%	#	%
Less than High School	118	30.3%	205,667	42.3%
High School Grad./GED	134	34.4%	127,099	26.2%
Some College/Assoc Degree	68	17.5%	77,680	16.0%
Bachelor's Degree	32	8.2%	48,927	10.1%
Advanced/Graduate Degree	28	7.2%	26,472	5.4%
No Response/Unknown	9	2.3%	-	-
Total	389	100.0%	485,845	100.0%



Information on income levels of the senior population in South Carolina was only available for householders ages 55 and over. Therefore, the percentages of the senior population for comparison are based on a total population of 537,594. In regards to income level, more seniors with a lower level of income responded to the survey than exist in the population. Seniors with an income of less than \$20,000 are represented by 55.6% of the survey respondents, whereas they represent only 35.2% of the population. Seniors with an income of \$20,000 to \$49,999 are represented by only 22.6% of the survey respondents, whereas they represent 36.1% of the population. In addition, only 7.7% of survey respondents have a total household income of \$50,000 or more, whereas 28.8% of the senior population of householders have an annual household income of \$50,000 or more. (See Table 8 and Figure 8.)

Table 8: Income Level of Persons Surveyed and Householders of Senior Population				
	Persons Surveyed		Householders of Senior Population	
	#	%	#	%
Less than \$12,000	136	35.0%	127,480	23.7%
\$12,000 to \$19,999	80	20.6%	61,745	11.5%
\$20,000 to \$29,999	37	9.5%	78,276	14.6%
\$30,000 to \$49,999	51	13.1%	115,489	21.5%
\$50,000 to \$74,999	16	4.1%	76,794	14.3%
\$75,000 to \$99,999	5	1.3%	35,792	6.7%
More than \$100,000	9	2.3%	42,018	7.8%
No Response	55	14.1%	-	-
Total	389	100.0%	537,594	100.0%



Sense of Control

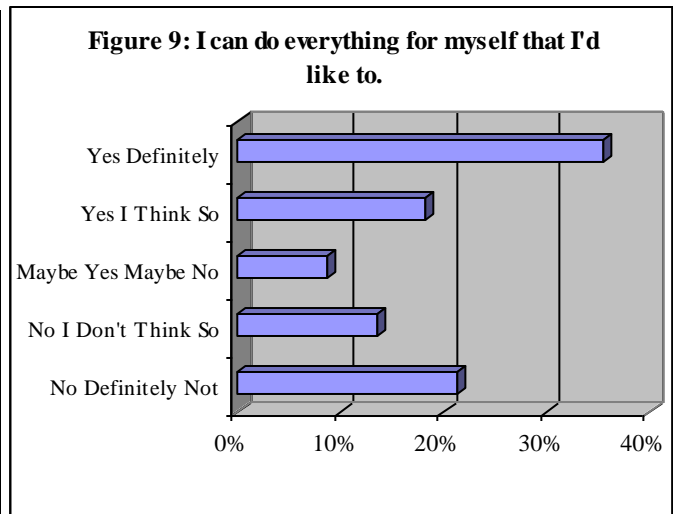
The first section of the survey refers to the respondents' sense of control. This section is divided into two parts: volume of control and financial control. The volume of control section contains five questions measuring ability to do for oneself, sense of displacement due to changes in the world, control over decision making, sense of recognition and achievement, and finally future aspirations. The financial construct contains two questions that measure the sense of security and degree of future concern on financial matters. The potential responses to questions in the control section are "Yes Definitely", "Yes I Think So", "Maybe Yes Maybe No", "No I Don't Think So", and "No Definitely Not". The responses to the survey questions are described first to provide the context for which the inferential statistics are then analyzed.

Description of Survey Responses

Question 1: I can do everything for myself that I'd like to do.

Of the 389 survey respondents, 53.8% stated that they either definitely can or think they can do everything for themselves that they would like to. Another 34.9% stated that they definitely can't or don't think they can do everything for themselves that they would like to. Only 13.6% were unsure and 2.6% did not respond. (See Table 9 and Figure 9.)

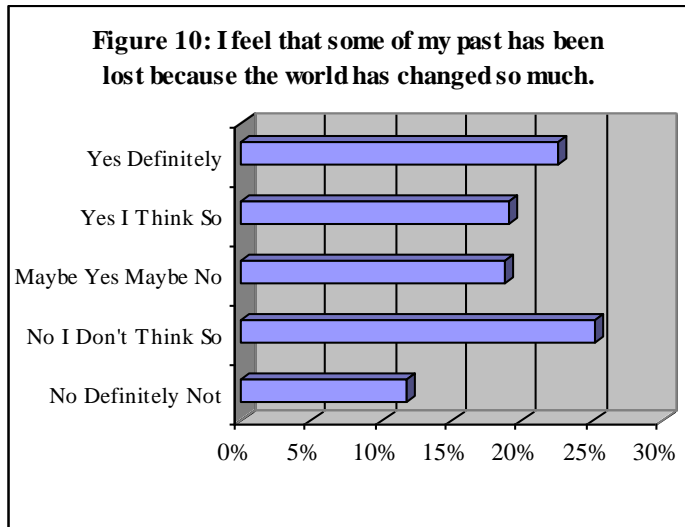
Table 9: I can do everything for myself that I'd like to do.		
	#	%
Yes Definitely	138	35.5%
Yes I Think So	71	18.3%
Maybe Yes Maybe No	34	8.7%
No I Don't Think So	53	13.6%
No Definitely Not	83	21.3%
No Response	10	2.6%
Total	389	100.0%



Question 2: I feel that some of my past has been lost because the world has changed so much.

Of the 389 survey respondents, 41.6% feel that they definitely feel or think they feel that some of their past has been lost because of changes in the world. An additional 37% definitely don't feel or don't think they feel that some of their past has been lost because of changes in the world. Approximately 18.8% were not sure, and 2.6% did not respond. (See Table 10 and Figure 10.)

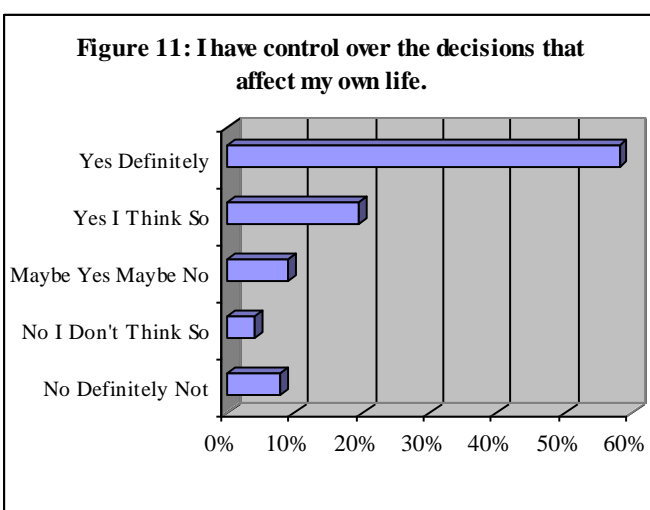
Table 10: I feel that some of my past has been lost because the world has changed so much.		
	#	%
Yes Definitely	88	22.6%
Yes I Think So	74	19.0%
Maybe Yes Maybe No	73	18.8%
No I Don't Think So	98	25.2%
No Definitely Not	46	11.8%
No Response	10	2.6%
Total	389	100.0%



Question 3: I have control over the decisions that affect my own life.

Of the 389 survey respondents, 77.6% believe that they definitely have or think they have control over the decisions that affect their own lives. Only 12.1% stated that they definitely do not have or don't think they have control over the decisions that affect their lives. An additional 9% were unsure and 1.3% did not respond. (See Table 11 and Figure 11.)

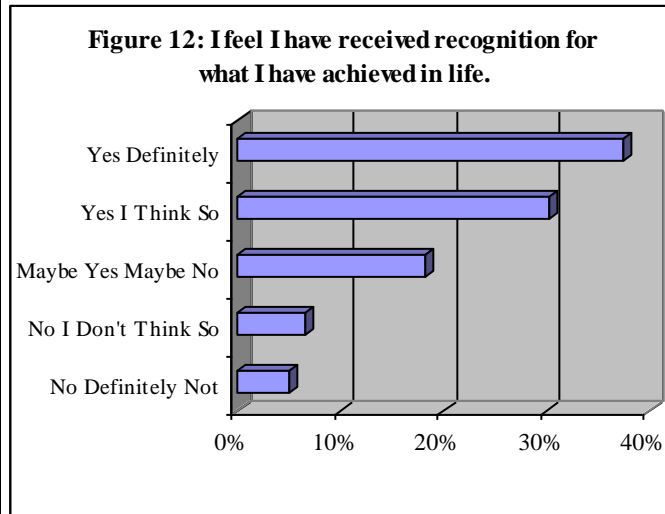
Table 11: I have control over the decisions that affect my own life.		
	#	%
Yes Definitely	226	58.1%
Yes I Think So	76	19.5%
Maybe Yes Maybe No	35	9.0%
No I Don't Think So	16	4.1%
No Definitely Not	31	8.0%
No Response	5	1.3%
Total	389	100.0%



Question 4: I feel I have received recognition for what I have achieved in life.

Of the 389 survey respondents, 67.8% feel that they definitely have or think they have received recognition for what they have achieved in life. Only 11.8% feel that they definitely have not or don't think they have received recognition for what they have achieved in life. An additional 18.3% stated that they were unsure and 2.1% did not respond. (See Table 12 and Figure 12.)

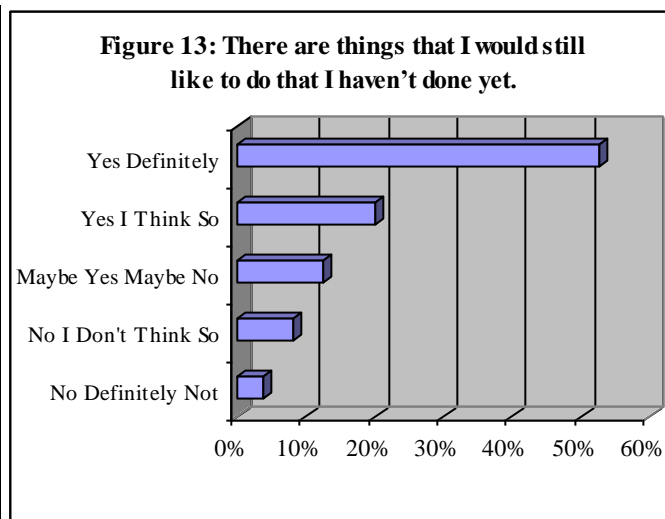
Table 12: I feel I have received recognition for what I have achieved in life.		
	#	%
Yes Definitely	146	37.5%
Yes I Think So	118	30.3%
Maybe Yes Maybe No	71	18.3%
No I Don't Think So	26	6.7%
No Definitely Not	20	5.1%
No Response	8	2.1%
Total	389	100.0%



Question 5: There are things that I would still like to do that I haven't done yet.

Of the 389 respondents, 72.8% stated that there definitely are or they think there are things that they would like to do that they haven't done yet. Only 12.1% stated that there are definitely not or they don't think there are things that they would still like to do that they haven't done yet. Approximately 12.6% were unsure and 2.6% did not respond. (See Table 13 and Figure 13.)

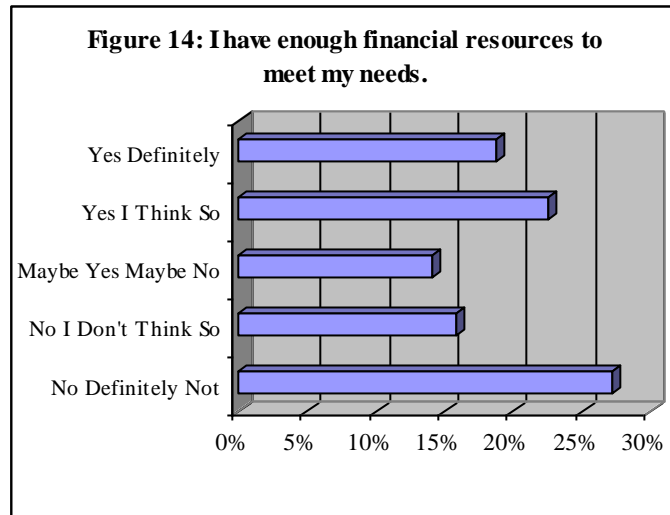
Table 13: There are things that I would still like to do that I haven't done yet.		
	#	%
Yes Definitely	205	52.7%
Yes I Think So	78	20.1%
Maybe Yes Maybe No	49	12.6%
No I Don't Think So	32	8.2%
No Definitely Not	15	3.9%
No Response	10	2.6%
Total	389	100.0%



Question 6: I have enough financial resources to meet my needs.

Of the 389 survey respondents, 41.4% definitely have or think they have enough financial resources to meet their needs. On the other hand, 43.1% feel that they definitely don't have or don't think they have enough financial resources to meet their needs. Approximately 14.1% were unsure and 1.3% did not respond. (See Table 14 and Figure 14.)

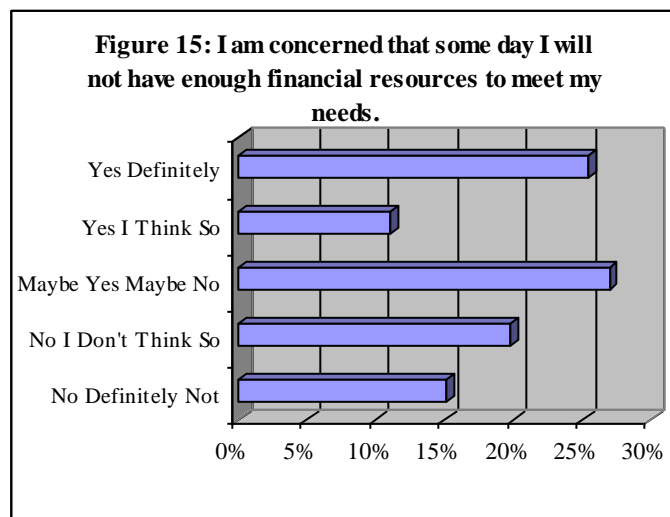
Table 14: I have enough financial resources to meet my needs.		
	#	%
Yes Definitely	73	18.8%
Yes I Think So	88	22.6%
Maybe Yes Maybe No	55	14.1%
No I Don't Think So	62	15.9%
No Definitely Not	106	27.2%
No Response	5	1.3%
Total	389	100.0%



Question 7: I am concerned that some day I will not have enough financial resources to meet my needs.

Of the 389 respondents, 36.5% are concerned that some day they will not have enough financial resources to meet their needs. On the other hand, 35% are not concerned that some day they will not have enough financial resources to meet their needs. More than one quarter (27%) were unsure, and 1.5% did not respond. (See Table 15 and Figure 15.)

Table 15: I am concerned that some day I will not have enough financial resources to meet my needs.		
	#	%
Yes Definitely	99	25.4%
Yes I Think So	43	11.1%
Maybe Yes Maybe No	105	27.0%
No I Don't Think So	77	19.8%
No Definitely Not	59	15.2%
No Response	6	1.5%
Total	389	100.0%



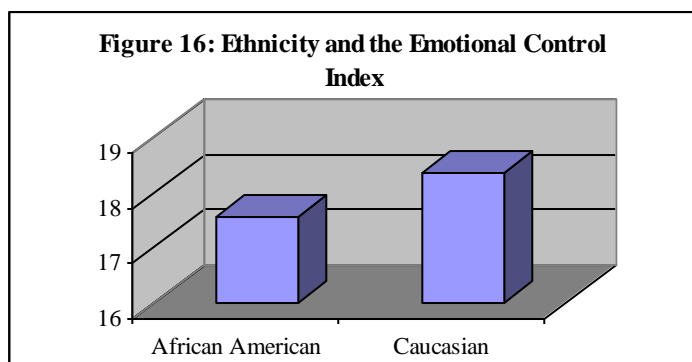
Index of Volume of Control

The index of volume of control issues was calculated using questions one through five. For questions one, three, four, and five, a response of ‘Yes Definitely’ is five points, ‘Yes I Think So’ is four points, ‘Maybe Yes Maybe No’ is three points, ‘No I Don’t Think So’ is two points, ‘No Definitely Not’ is one point, and no response is zero points. For question two, a response of ‘Yes Definitely’ is one point, ‘Yes I Think So’ is two points, ‘Maybe Yes Maybe No’ is three points, ‘No I Don’t Think So’ is four points, ‘No Definitely Not’ is five points, and no response is zero points. The points earned for each respondent are then added up to equal the total index score for each respondent. Therefore, the higher the respondent’s index score, the more they feel they have control over the decisions that affect their well-being and identity. The range of total possible points for each respondent is from 0 to 25. The reliability of this index is 52.5%.

After calculating the index score for each respondent, analyses were conducted to determine if there were any significant differences or associations with the demographic variables. These analyses show that the volume of control index is significantly related to ethnicity, age, education, and household income.

An independent samples t-test was conducted on each respondent’s ethnicity and volume of control index score in order to determine if African-Americans and Caucasians have significantly different views of their ability to control the decisions that affect their lives. The analysis shows that there is a slightly significant difference of 0.80 points ($t=-1.91$, $df=319$, $p=0.057$). Caucasians have a slightly higher average index score of 18.36 ($n=228$, $SD=4.01$); whereas African-Americans’ average index score is 17.56 ($n=149$, $SD=3.96$). Therefore, Caucasians are somewhat more likely to believe they are in control of the decisions that affect their lives. (See Table 16 and Figure 16.)

Table 16: Ethnicity and the Volume of Control Index		
	African-American	Caucasian
Mean Score	17.56	18.36
N	149	228
SD	3.96	4.01



A Pearson correlation was conducted on each respondent’s age category and volume of control index to determine if people of different age groups have different views of their ability to control the decisions that affect their lives. The analysis shows that there is a highly significant relationship between age and the volume of control index ($n=380$, $p=.000$). However, this relationship is only somewhat negatively linear ($r=-0.255$). In addition, the pattern of linearity does not become strong until the age grouping 63 to 65, which is about the time people retire. Therefore, the further people move into retirement, the more likely they will feel that they have less control over the decisions that affect their lives. On the other hand, a large subgroup of

retirement age seniors exists that have a strong feeling of control over the decisions that affect their lives. (See Figure 17.)

An analysis of possible relationships between the volume index and other survey responses from seniors ages 63 and over was conducted to determine why some retirement age seniors have more volume of control than others. An independent samples t-test shows that one possible explanation is the number of times the senior engages in some activity at church. The average score on the volume of control index for seniors ages 63 and over who go to church several times a week is 19.4 (n=62, SD=3.63). The average score on the volume of control index for seniors ages 63 and over who hardly ever go to church is 17.06 (n=88, SD=4.16). This difference is highly statistically significant (t=3.67, df=141, p=0.000). Therefore, seniors ages 63 and over who go to church several times a week are more likely to feel they have more control over the decisions that affect their lives than seniors ages 63 and over who hardly ever go to church. (See Table 18 and Figure 18.)

Figure 17: Age and Volume of Control

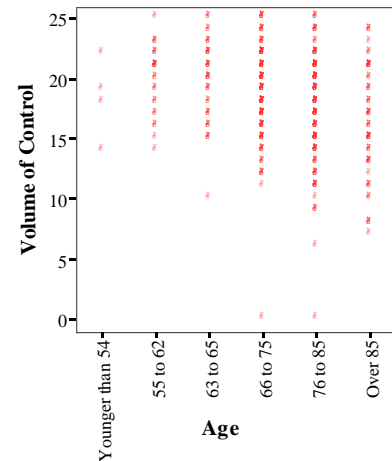
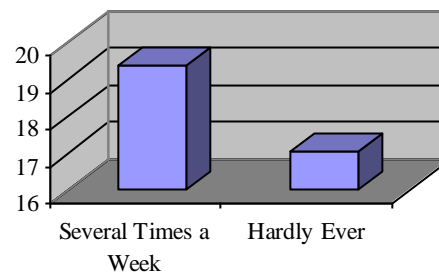


Table 18: Average Volume of Control Index Score of Seniors Ages 63 and Over by Frequency of Church Attendance		
	Several Times a Week	Hardly Ever
Average Index Score	19.40	17.06
N	62	88
SD	3.63	4.16

Figure 18: Average Emotional Control Index Score of Seniors Ages 63 and Over by Frequency of Church Attendance



A Pearson correlation was conducted on each respondent’s educational attainment category and Volume of control index to determine if people of different educational levels have different views of their ability to control the decisions that affect their lives. The analysis shows that there is a highly significant relationship between education and the volume of control index (n=380, p=.000). However, this relationship is only somewhat linear (r=0.294). There is a strong pattern that shows that seniors with a higher level of education are less likely than seniors with lower levels of education to feel that they do not have control over the decisions that affect their lives. The exception appears to be with seniors who have an education level of less than high school. (See Figure 19.)

A Pearson correlation was conducted on each respondent’s income level and volume of control index to determine if people of different income levels have different views of their ability to control the decisions that affect their lives. The analysis shows that there is a highly significant relationship between income and the volume of control index (n=334, p=.000). However, this relationship is only somewhat linear (r=0.369). There is a strong pattern that shows that seniors with a higher level of income are less likely than seniors with lower levels of income to feel that

they do not have control over the decisions that affect their lives. There is a large subgroup of seniors with lower levels of income who feel they have control over the decisions that affect their lives. (See Figure 20.)

Figure 19: Education Level and Volume of Control

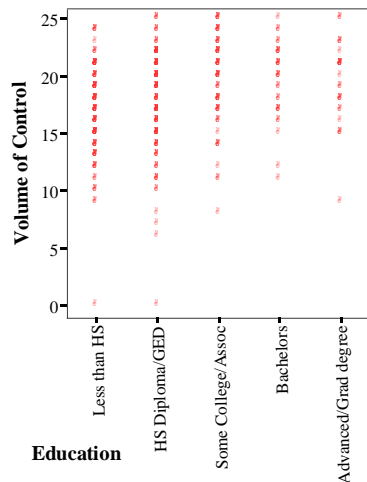
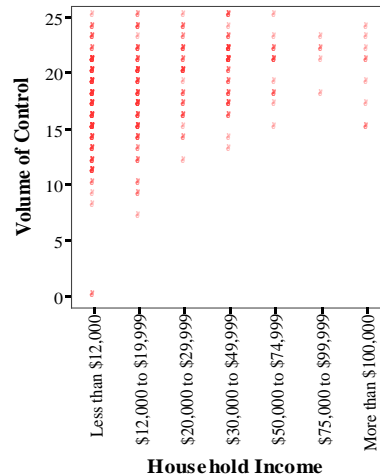


Figure 20: Income and Volume of Control



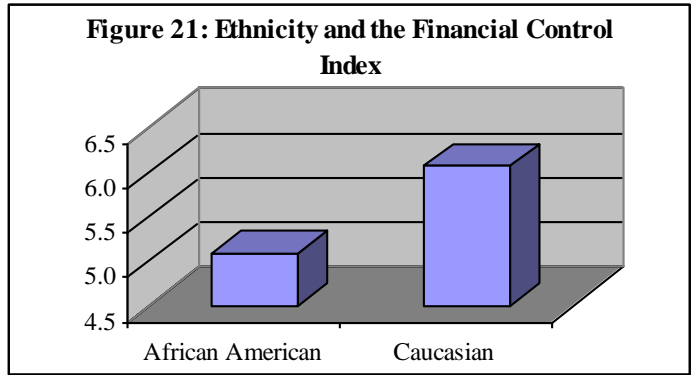
Index of Financial control

The index of financial control issues was calculated using questions six and seven. For question six, a response of ‘Yes Definitely’ is five points, ‘Yes I Think So’ is four points, ‘Maybe Yes Maybe No’ is three points, ‘No I Don’t Think So’ is two points, ‘No Definitely Not’ is one point, and no response is worth no points. For question seven, a response of ‘Yes Definitely’ is one point, ‘Yes I Think So’ is two points, ‘Maybe Yes Maybe No’ is three points, ‘No I Don’t Think So’ is four points, ‘No Definitely Not’ is five points, and no response is zero points. The points earned for each respondent are then added up to equal the total index score for each respondent. Therefore, the higher the respondent’s index score, the more they feel they have control over the decisions that affect their financial well-being. The range of total possible points for each respondent is from 0 to 10. The reliability of this index is 46%.

After calculating the index score for each respondent, analyses were conducted to determine if there were any significant differences or associations with the demographic variables. These analyses show that the financial control index is significantly related to ethnicity, education, and household income.

An independent samples t-test was conducted on each respondent’s ethnicity and financial control index score in order to determine if African-Americans and Caucasians have significantly different views of their ability to provide for their own financial needs. The analysis shows that there is a highly significant difference of 0.97 points ($t=-3.98$, $df=324$, $p=0.000$). Caucasians have a slightly higher average index score of 6.06 ($n=228$, $SD=2.36$); whereas African-Americans’ average index score is 5.09 ($n=149$, $SD=2.28$). Therefore, Caucasians are more likely to believe they are able to and will continue to be able to provide for their financial needs. (See Table 21 and Figure 21.)

Table 21: Ethnicity and the Financial control Index		
	African-American	Caucasian
Mean Score	5.09	6.06
N	149	228
SD	2.28	2.36



A Pearson correlation was conducted on each respondent's education level and financial control index to determine if people of different educational levels have different views of their ability to control their financial well-being. The analysis shows that there is a highly significant linear relationship between education and financial control ($r=0.303$, $n=380$, $p=.000$). There is a strong pattern that shows that seniors with more education are less likely than seniors with less education to feel that they do not have control over their financial stability. (See Figure 22.)

A Pearson correlation was conducted on each respondent's income level and financial control index to determine if people of different income levels have different views of their ability to provide for their own financial needs. The analysis shows that there is a highly significant linear relationship between income and financial control ($r=0.369$, $n=334$, $p=.000$). There is a strong pattern that shows that seniors with a higher level of income are less likely than seniors with lower levels of income to feel that they do not have control over their financial stability. There is a large subgroup of seniors with lower levels of income who feel they have control over their financial stability. (See Figure 23.)

Figure 22: Education and Financial Control

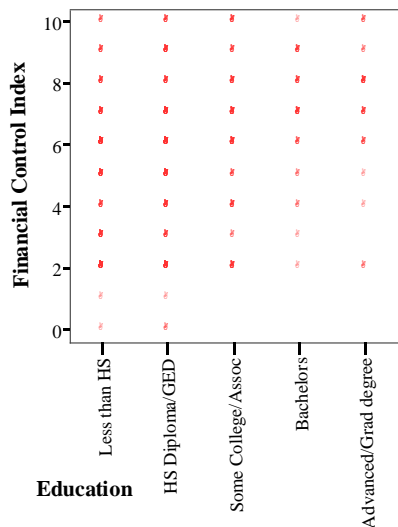
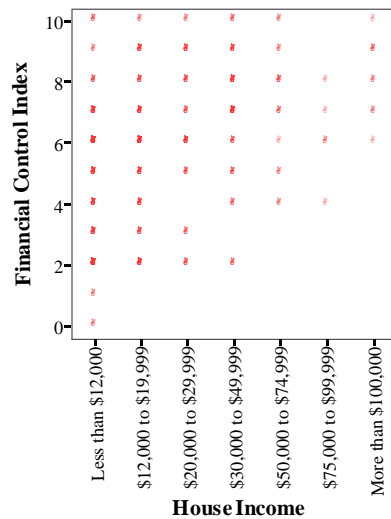


Figure 23: Income and Financial Control



Social Connectedness

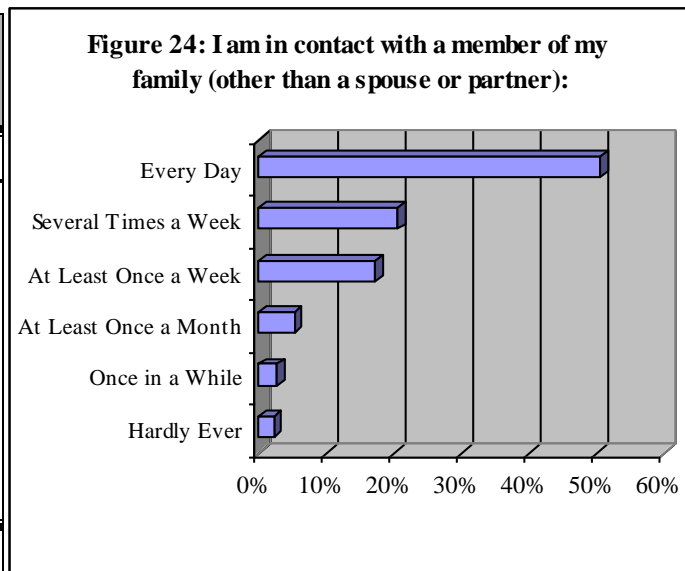
The second section of the survey refers to the respondents' level of social contact. Social connectedness is measured through frequency of personal contact with family members, friends, neighbors, and through participation in church and other social activities. This section contains five questions and the potential responses are "Every Day", "Several Times a Week", "At Least Once a Week", "At Least Once a Month", "Once in a While", and "Hardly Ever". Responses from two additional open ended questions have been included in this section as they were measuring the same construct. The two questions asked the consumers where they go most often and second most often to be with other people. The responses to the survey questions are described first to provide the context for which the inferential statistics are then analyzed.

Description of Survey Responses

Question 8: I am in contact with a member of my family (other than a spouse or partner):

Of the 389 survey respondents, more than half (50.6%) stated that they are in contact with a family member (other than a spouse or partner) every day. An additional 20.6% stated that they are in contact with a family member several times a week, and 17.2% stated that they are in contact with a family member at least once a week. Only 10.5% stated that they are only in contact with a family member at least once a month or less. The remaining 1% did not respond. (See Table 24 and Figure 24.)

	#	%
Every Day	197	50.6%
Several Times a Week	80	20.6%
At Least Once a Week	67	17.2%
At Least Once a Month	21	5.4%
Once in a While	11	2.8%
Hardly Ever	9	2.3%
No Response	4	1.0%
Total	389	100.0%

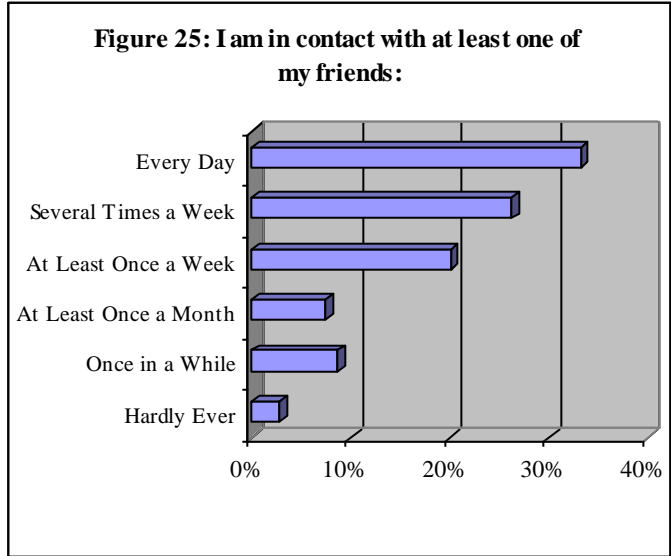


Question 9: I am in contact with at least one of my friends:

Of the 389 survey respondents, 33.2% stated they are in contact with at least one of their friends every day, 26.2% stated they are in contact with at least one friend several times a week, and 20.1% stated that they are in contact with one friend at least once a week. Only 7.5% stated they

are in contact with a friend at least once a month, 8.7% stated they are in contact with a friend once in a while, and 2.8% stated they are hardly ever in contact with at least one friend. The remaining 1.5% did not respond. (See Table 25 and Figure 25.)

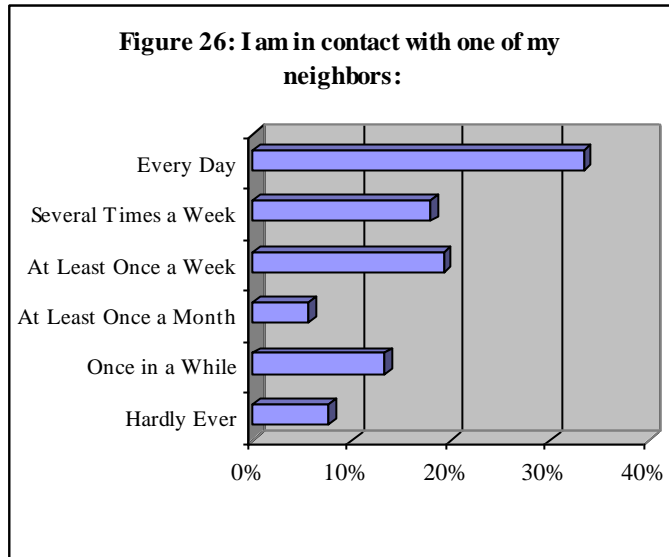
Table 25: I am in contact with at least one of my friends:		
	#	%
Every Day	129	33.2%
Several Times a Week	102	26.2%
At Least Once a Week	78	20.1%
At Least Once a Month	29	7.5%
Once in a While	34	8.7%
Hardly Ever	11	2.8%
No Response	6	1.5%
Total	389	100.0%



Question 10: I am in contact with one of my neighbors:

Of the 389 survey respondents, 33.4% stated they are in contact with one of their neighbors every day, 18% are in contact with one neighbor several times a week, and 19.3% are in contact with one of their neighbors at least once a week. In additional 5.7% stated they are in contact with a neighbor once a month, 13.4% stated they are in contact with a neighbor once in a while, and 7.7% stated they are hardly ever in contact with a neighbor. The remaining 2.6% did not respond. (See Table 26 and Figure 26.)

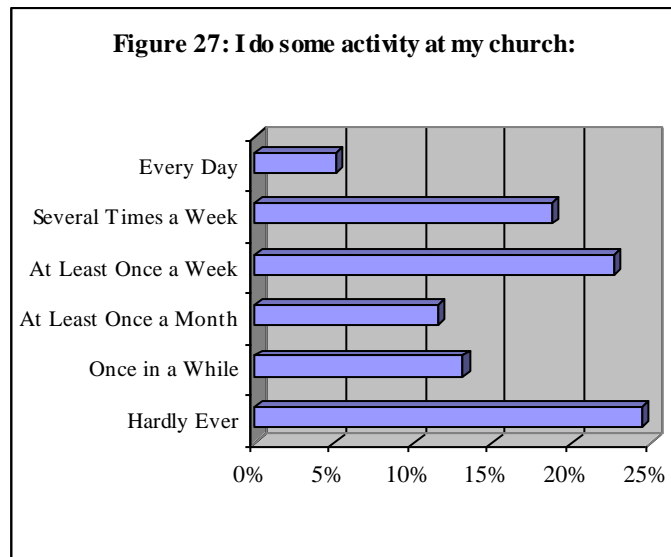
Table 26: I am in contact with one of my neighbors:		
	#	%
Every Day	130	33.4%
Several Times a Week	70	18.0%
At Least Once a Week	75	19.3%
At Least Once a Month	22	5.7%
Once in a While	52	13.4%
Hardly Ever	30	7.7%
No Response	10	2.6%
Total	389	100.0%



Question 11: I do some activity at my church:

Only 5.1% of survey respondents stated that they do some activity at their church every day. In addition, 24.4% stated that they hardly ever do some activity at their church. Another 31.4% stated they do some activity at their church once a week to several times a week, and 24.7% stated they do some activity at their church at least once a month to once in a while. The remaining 4.4% did not respond. (See Table 27 and Figure 27.)

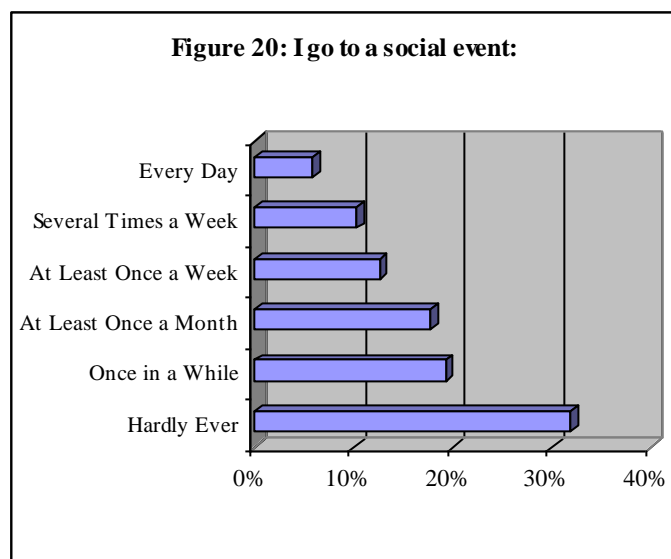
Table 27: I do some activity at my church:		
	#	%
Every Day	20	5.1%
Several Times a Week	73	18.8%
At Least Once a Week	88	22.6%
At Least Once a Month	45	11.6%
Once in a While	51	13.1%
Hardly Ever	95	24.4%
No Response	17	4.4%
Total	389	100.0%



Question 12: I go to a social event:

Approximately half of the respondents (51.2%) stated that they go to a social event once in a while or hardly ever. Only 16.2% of respondents go to a social event every day or several times a week. An additional 12.6% of respondents go to a social event at least once a week, and 17.7% go to a social event at least once a month. The remaining 2.3% did not respond. (See Table 28 and Figure 28.)

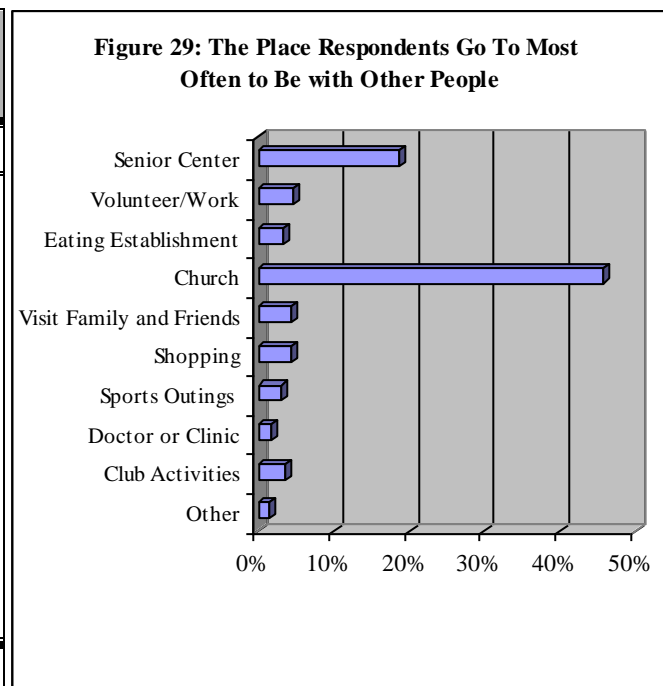
Table 28: I go to a social event:		
	#	%
Every Day	23	5.9%
Several Times a Week	40	10.3%
At Least Once a Week	49	12.6%
At Least Once a Month	69	17.7%
Once in a While	75	19.3%
Hardly Ever	124	31.9%
No Response	9	2.3%
Total	389	100.0%



Question 19: The place I go to *most often* to be with other people is: (please fill in)

The most common place respondents go to be with other people is church or church related activities (45.8%). Other common places are the local senior or community center (18.8%), eating establishments (3.3%), sports outings or activities (3.1%), and club activities (3.6%). Respondents also volunteer or go to work (4.6%), visit family and friends (4.4%), go shopping or to the store (4.4%), and go to the doctor or other health related activity (1.8%). An additional 1.5% of respondents listed other places they go to be with other people, and 8.7% did not respond. (See Table 29 and Figure 29.) A list of other places can be found in Appendix Five.

Table 29: The place I go to most often to be with other people is:		
	#	%
Senior or Community Center	73	18.8%
Volunteer or Work	18	4.6%
Eating Establishment	13	3.3%
Church/Church Activities	178	45.8%
Visit Family and Friends	17	4.4%
Shopping	17	4.4%
Sports Outings or Activities	12	3.1%
Doctor or Clinic	7	1.8%
Club Activities	14	3.6%
Other	6	1.5%
No Response	34	8.7%
Total	389	100.0%

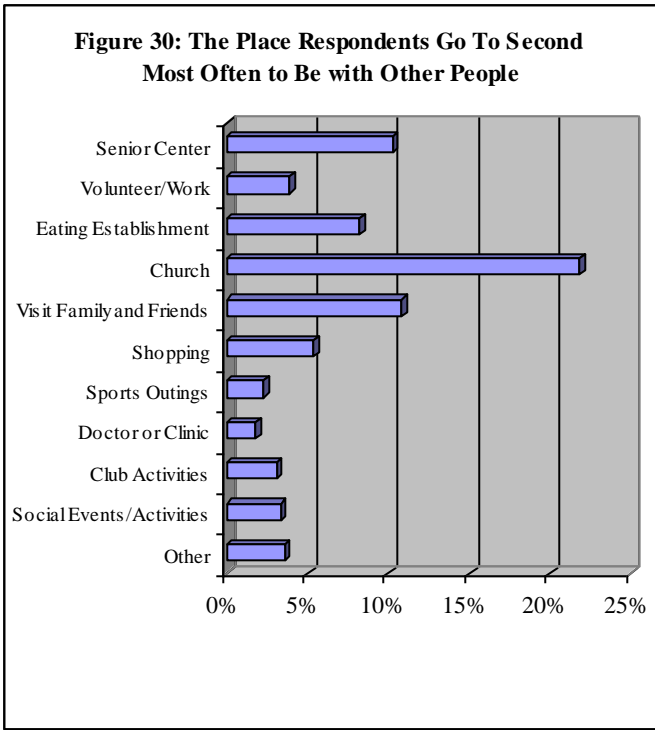


Question 20: The place I go to *second most often* to be with other people is: (please fill in)

The most common place respondents go second most often to be with other people is church or church related activities (21.9%). Other common places are the local senior or community center (10.3%), eating establishments (8.2%), sports outings or activities (2.3%), social events and activities (3.3%) and club activities (3.1%). Respondents also volunteer or go to work (3.9%), visit family and friends (10.8%), go shopping or to the store (5.4%), and go to the doctor or other health related activity (1.8%). An additional 3.6% of respondents listed other places they go to be with other people, and 25.4% did not respond. (See Table 30 and Figure 30.) A list of other places can be found in Appendix Five.

Table 30: The place I go to second most often to be with other people is:

	#	%
Senior or Community Center	40	10.3%
Volunteer or Work	15	3.9%
Eating Establishment	32	8.2%
Church/Church Activities	85	21.9%
Visit Family and Friends	42	10.8%
Shopping	21	5.4%
Sports Outings	9	2.3%
Doctor or Clinic	7	1.8%
Club Activities	12	3.1%
Social Events/Activities	13	3.3%
Other	14	3.6%
No Response	99	25.4%
Total	389	100.0%



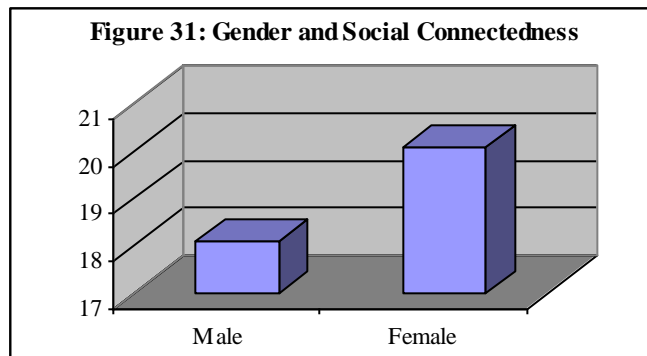
Index of Social Connectedness

The index of social connectedness issues was calculated using questions eight through twelve. A response of ‘Every Day’ is six points, ‘Several Times a Week’ is five points, ‘At Least Once a Week’ is four points, ‘At Least Once a Month’ is three points, ‘Once in a While’ is two points, ‘Hardly Ever’ is one point, and no response is zero points. The points earned for each respondent are then added up to equal the total index score for each respondent. Therefore, the higher the respondent’s index score, the more they feel connected with their kin and social networks. The range of total possible points for each respondent is from 0 to 30. The reliability of this index is 58.8%.

After calculating the index score for each respondent, analyses were conducted to determine if there were any significant differences or associations with the demographic variables. These analyses show that the social connectedness index is significantly related to gender and ethnicity. A cross-tabulation was also conducted to determine if there were significant differences in the places that males and females prefer to go to be with other people.

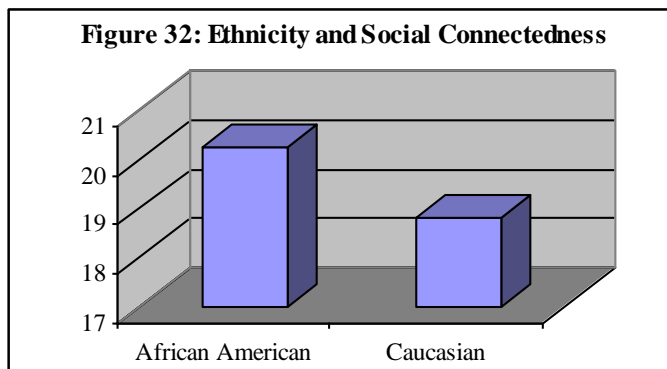
An independent samples t-test was conducted on each respondent’s gender and Social connectedness index in order to determine if there are any differences in the social kin and social networks of males and females. Males had a mean index score of 18.11 (n=115, SD=4.71). Females had a mean index score of 20.07 (n=247, SD=5.14). This difference is highly statistically significant (t=3.57, df=241, p=0.000). Therefore, females are more likely to feel socially connected than males. (See Table 31 and Figure 31.)

Table 31: Gender and Social Connectedness		
	Male	Female
Mean Score	18.11	20.07
N	115	247
SD	4.71	5.14



An independent samples t-test was conducted on each respondent's ethnicity and social connectedness index in order to determine if there are any differences in the social kin and social networks of Black/African-Americans and White/Caucasians. African-Americans had a mean index score of 20.26 (n=149, SD=4.89). Caucasians had a mean index score of 18.81 (n=228, SD=5.12). This difference is highly statistically significant (t=2.77, df=326, p=0.006). Therefore, African-Americans are more likely to feel socially connected than Caucasians. (See Table 32 and Figure 32.)

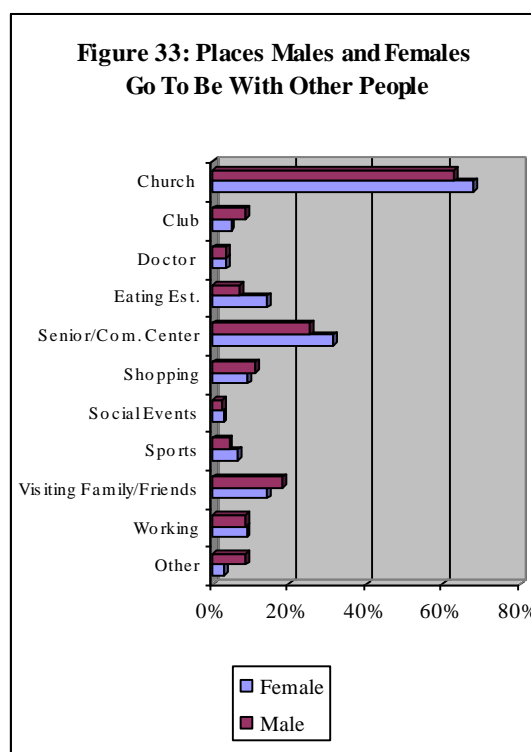
Table 32: Ethnicity and Social Connectedness		
	African-American	Caucasian
Mean Score	20.26	18.81
N	149	228
SD	4.89	5.12



The cross-tabulation of places respondents go to be with other people was calculated by adding their first and second preference of places they go most often. This new variable, which includes all places people mentioned they go to be with other people, was then divided into whether the respondent was male or female.

Females listed church as one of the places they go to be with other people more often than males (68% for females versus 62.6% for males). Females also listed senior or community centers more often than males (31.6% for females versus 25.2% for males). Overall, there were a total of 413 places listed by females out of a possible 494 responses (83.6%) compared to a total of 185 places listed by males out of a possible 230 responses (80.4%). Therefore, females go to slightly more places to be with other people than males. (See Table 33 and Figure 33.)

Table 33: Places Males and Females go to be with Other People				
	Females		Males	
	#	% of all	#	% of all
Church/Church Activities	168	68.0%	72	62.6%
Club Activities	12	4.9%	10	8.7%
Doctor or Clinic	9	3.6%	4	3.5%
Eating Establishment	35	14.2%	8	7.0%
Senior/Com. Center	78	31.6%	29	25.2%
Shopping	23	9.3%	13	11.3%
Sports Outings	7	2.8%	3	2.6%
Social Events/Activities	16	6.5%	5	4.3%
Visit Family and Friends	35	14.2%	21	18.3%
Volunteer or Work	22	8.9%	10	8.7%
Other	8	3.2%	10	8.7%



Feelings of Loss

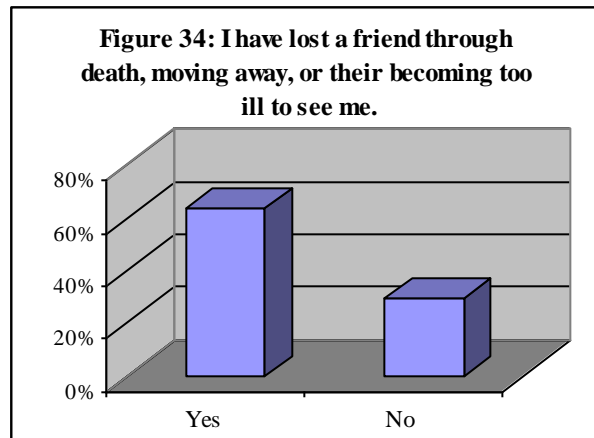
The third section of the survey refers to the respondents' feelings of loss and how it affects their emotional loss. Every categorical question asking whether the respondents have lost their family members, spouse, or friends is followed by a scale that measures the degree of their emotional loss caused by such loss. The degree of loss is measured by a Likert scale including the responses "Every Day", "Several Times a Week", "At Least Once a Week", "At Least Once a Month", "Once in a While", and "Hardly Ever". The responses to the survey questions are described first to provide the context for which the inferential statistics are then analyzed.

Description of Survey Responses

Question 13: I have lost a friend through death, moving away, or their becoming too ill to see me.

Of the 389 survey respondents, 63.5% stated that they have lost a friend through death, moving away, or their becoming too ill to see them. Another 29.3% stated that they had not lost a friend in this manner. The remaining 7.2% did not respond. (See Table 34 and Figure 34.)

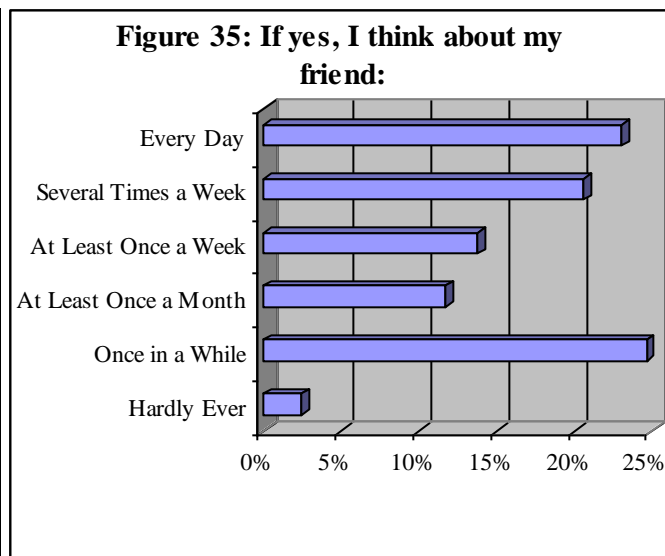
Table 34: I have lost a friend through death, moving away, or their becoming too ill to see me.		
	#	%
Yes	247	63.5%
No	114	29.3%
No Response	28	7.2%
Total	389	100.0%



Question 13b: If yes, I think about my friend:

Of the 247 respondents who answered yes to the previous question, 23.1% stated they think about their friend every day, 20.6% stated they think about their friend several times a week, 13.8% think about their friend at least once a week, 11.7% think about their friend at least once a month, 24.7% stated they think about their friend once in a while, and 2.4% stated they hardly ever think about their friend. The remaining 3.6% did not respond. (See Table 35 and Figure 35.)

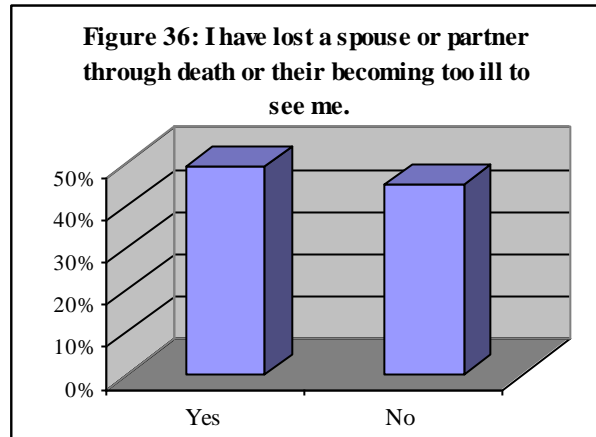
Table 35: If yes, I think about my friend:		
	#	%
Every Day	57	23.1%
Several Times a Week	51	20.6%
At Least Once a Week	34	13.8%
At Least Once a Month	29	11.7%
Once in a While	61	24.7%
Hardly Ever	6	2.4%
No Response	9	3.6%
Total	247	100.0%



Question 14: I have lost a spouse or partner through death or their becoming too ill to see me.

Of the 389 survey respondents, 49.4% stated that they have lost a spouse or partner through death or their becoming too ill to see them. On the other hand, 45% stated that they had not lost a spouse or partner in this manner. The remaining 5.7% did not respond. (See Table 36 and Figure 36.)

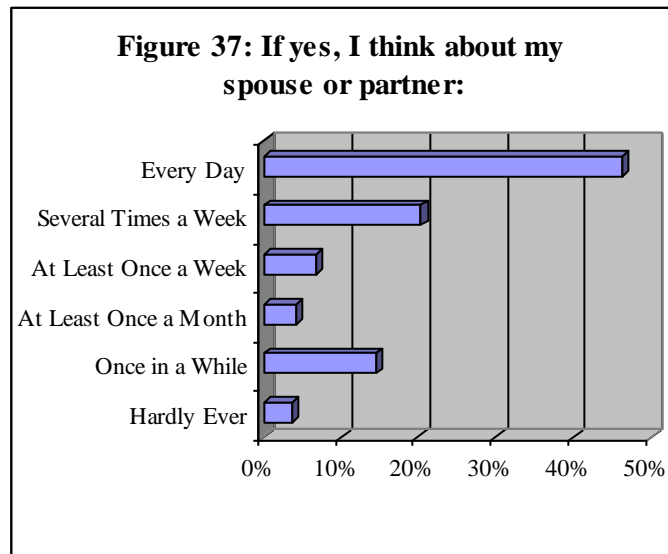
Table 36: I have lost a spouse or partner through death or their becoming too ill to see me.		
	#	%
Yes	192	49.4%
No	175	45.0%
No Response	22	5.7%
Total	389	100.0%



Question 14b: If yes, I think about my spouse or partner:

Of the 192 respondents who answered yes to the previous question, 46.4% stated they think about their spouse or partner every day, 20.3% stated they think about their spouse or partner several times a week, 6.8% think about their spouse or partner at least once a week, 4.2% think about their spouse or partner at least once a month, 14.6% stated they think about their spouse or partner once in a while, and 3.6% stated they hardly ever think about their spouse or partner. The remaining 4.2% did not respond. (See Table 37 and Figure 37.)

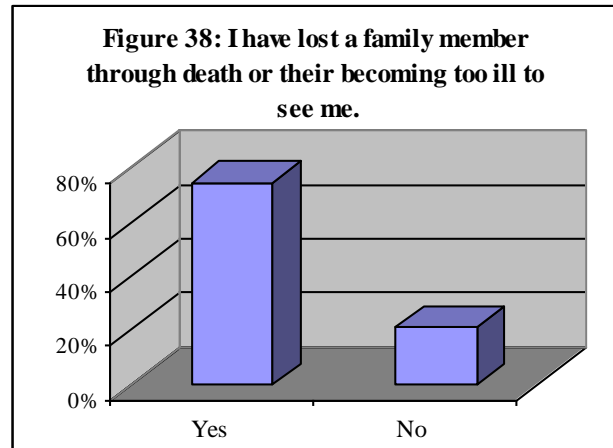
Table 37: If yes, I think about my spouse or partner:		
	#	%
Every Day	89	46.4%
Several Times a Week	39	20.3%
At Least Once a Week	13	6.8%
At Least Once a Month	8	4.2%
Once in a While	28	14.6%
Hardly Ever	7	3.6%
No Response	8	4.2%
Total	192	100.0%



Question 15: I have lost a family member through death or their becoming too ill to see me.

Of the 389 survey respondents, 74.6% stated that they have lost a family member through death or their becoming too ill to see them. Another 20.8% stated that they had not lost a family member in this manner. The remaining 4.6% did not respond. (See Table 38 and Figure 38.)

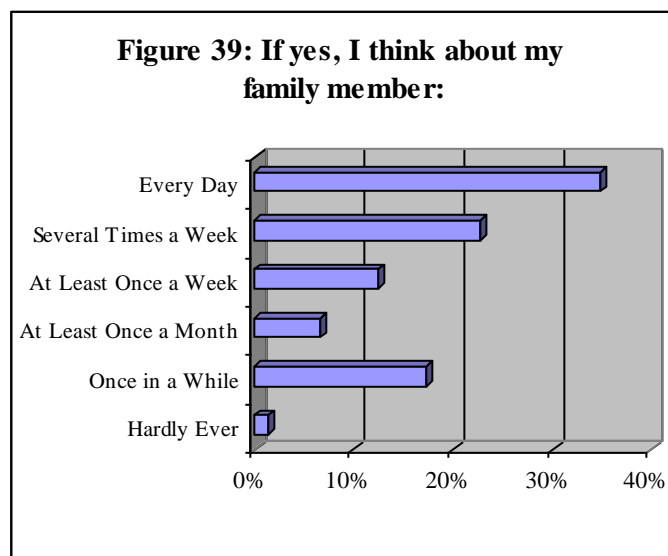
Table 38: I have lost a family member through death or their becoming too ill to see me.		
	#	%
Yes	290	74.6%
No	81	20.8%
No Response	18	4.6%
Total	389	100.0%



Question 15b: If yes, I think about my family member:

Of the 290 respondents who answered yes to the previous question, 34.8% stated they think about their family member every day, 22.8% stated they think about their family member several times a week, 12.4% think about their family member at least once a week, 6.6% think about their family member at least once a month, 17.2% stated they think about their family member once in a while, and 1.4% stated they hardly ever think about their family member. The remaining 4.8% did not respond. (See Table 39 and Figure 39.)

Table 39: If yes, I think about my family member:		
	#	%
Every Day	101	34.8%
Several Times a Week	66	22.8%
At Least Once a Week	36	12.4%
At Least Once a Month	19	6.6%
Once in a While	50	17.2%
Hardly Ever	4	1.4%
No Response	14	4.8%
Total	290	100.0%



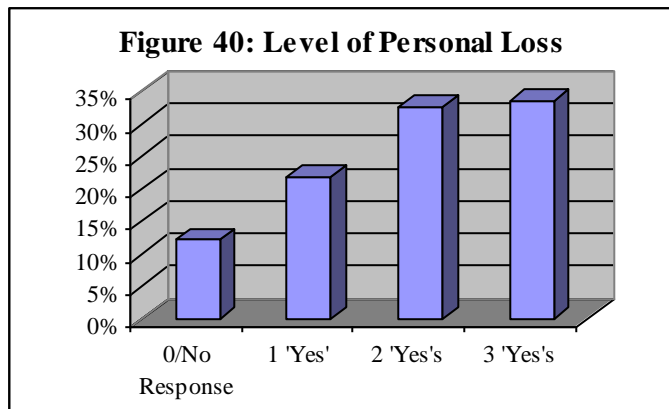
Index of Level of Personal Loss

The index of the level of personal loss was calculated using questions thirteen through fifteen. For every ‘Yes’ response, the respondent received one point on the index. The points earned for each respondent are then added up to equal the total index score for each respondent. Therefore, respondents with a higher index score have experienced more personal loss. The range of total possible points for each respondent is from 0 to 3. The reliability of this index is 57%.

After calculating the index score for each respondent, it was discovered that the level of personal loss index is more useful as a demographic variable than as a factor affecting movement to a higher level of care. Therefore, for the remainder of this report, Personal Loss will be utilized to describe the amount of personal loss a respondent has experienced.

Of the 389 survey respondents, 33.4% lost at least one friend, one family member, and their spouse. Another 32.6% reported that they lost two out of the three, 21.9% reported that they have lost one friend, family member, or spouse, and 12.1% did not report that they lost a friend, family member, or spouse. (See Table 40 and Figure 40.)

Table 40: Index of Level of Personal Loss		
	#	%
3 'Yes's	130	33.4%
2 'Yes's	127	32.6%
1 'Yes'	85	21.9%
0/No Response	47	12.1%
Total	389	100.0%



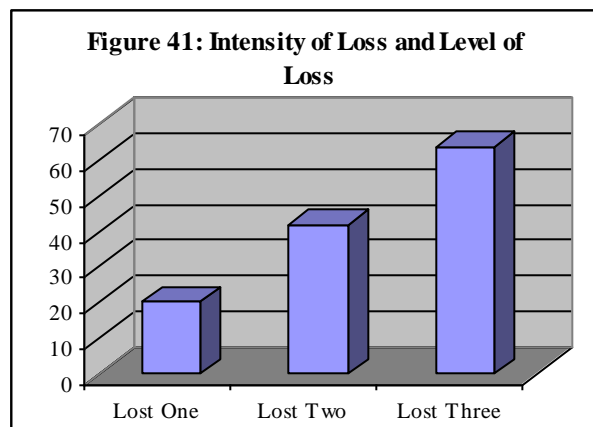
Index of Intensity of Loss

The index of intensity of loss was calculated using the “If yes” responses to questions thirteen through fifteen. Since there is a possibility of a respondent answering anywhere from one to three of these questions, points for responses were calculated using multiples of five. Therefore, a response of ‘Every Day’ is worth 30 points, ‘Several Times a Week’ is 25 points, ‘At Least Once a Week’ is 20 points, ‘At Least Once a Month’ is 15 points, ‘Once in a While’ is ten points, ‘Hardly Ever’ is five points, and no response is zero points. The points earned for each respondent are then added up to equal the total index score for each respondent. Therefore, the higher the respondent’s index score, the more they think about the people they have lost. The range of total possible points for each respondent is from 0 to 90. The reliability of this index is 60.2%.

After calculating the index score for each respondent, analyses were conducted to determine if there were any significant differences or associations with the demographic variables. These analyses show that the Intensity of Loss index is significantly related to level of loss, gender, the ethnicity of widows, education, and household income.

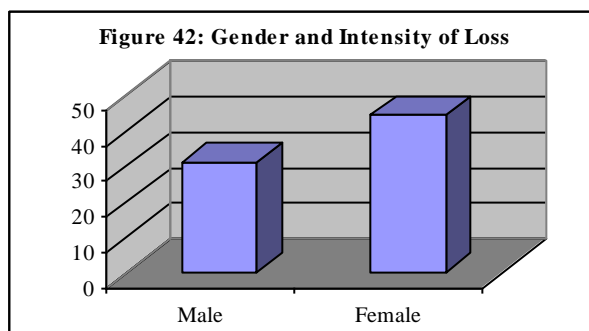
A One-Way ANOVA test of significance was conducted on each respondent's level of loss and intensity of loss in order to determine if someone who has lost a larger number of people thinks about them more often. Respondents who had only one personal loss had a mean index score of 20.06 (n=85, SD=9.59). Those who had two personal losses had a mean index score of 41.81 (n=127, SD=14.21). Those who had lost three persons had a mean index score of 63.62 (n=130, SD=22.76). These differences are highly statistically significant (F=168.10, df=2, p=0.000). With the exceptions of a number of respondents who feel less loss though they have lost three people, than other respondents who have lost only one person, the mean score of the Intensity index increases in even increments as the level of loss increases. Therefore, respondents who have three personal losses do not necessarily think about them more than respondents who have only one loss. (See Table 41 and Figure 41.)

Table 41: Intensity of Loss and Level of Loss			
	Lost One	Lost Two	Lost Three
Mean Score	20.06	41.81	63.62
N	85	127	130
SD	9.59	14.21	22.76
Minimum	0	0	0
Maximum	30	60	90



An independent samples t-test was conducted on each respondent's gender and intensity of loss in order to determine if there are any differences in the amount of times males and females think about the people they have lost. Males had a mean index score of 31.26 (n=115, SD=22.34). Females had a mean index score of 44.43 (n=247, SD=27.67). This difference is highly statistically significant (t=4.47, df=360, p=0.000). Therefore, females are more likely to experience greater intensity of loss. (See Table 42 and Figure 42.)

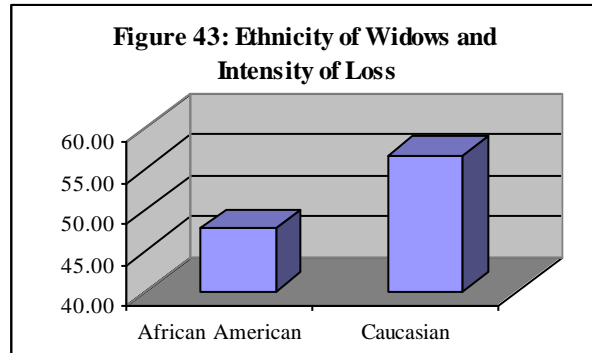
Table 42: Gender and Intensity of Loss		
	Male	Female
Mean Score	31.26	44.43
N	115	247
SD	22.34	27.67



An ANOVA test of significance was performed on each respondent's marital status and intensity of loss. As expected, this test showed that widows have a higher intensity of loss than any other respondent. The mean difference of widowed to married respondents is 25.38 points, widowed to divorced respondents is 22.68, and widowed to single respondents is 20. These differences are statistically significant (F=24.14, df=4, p=0.000). No other categories within marital status were found to be significantly different.

An independent samples t-test was then conducted on the index scores of widowed respondents. This analysis showed that of the widowed respondents, those who are Caucasian experience greater intensity of loss than those who are African-American. The mean index score for Caucasian widows is 56.53 (n=95, SD=24, range=0-90). The mean index score for African-American widows is 47.7 (n=87, SD=28.86, range=0-90). This difference is statistically significant (t=-2.25, df=180, p=0.026). (See Table 43 and Figure 43.)

	African-American	Caucasian
Mean Score	47.70	56.53
N	87	95
SD	28.86	24.00



A Pearson correlation was conducted on each respondent's education level and intensity of loss index to determine if people of different education levels experience different intensities of loss. The analysis shows that there is a significant relationship between education and the Intensity of Loss index (n=380, p=.010). This relationship is negatively correlated (r=-0.131). Therefore, people with a lower level of education experience a greater intensity of loss than those with more education. (See Figure 44.)

A Pearson correlation was conducted on each respondent's income level and intensity of loss index to determine if people of different income levels experience different intensities of loss. The analysis shows that there is a significant relationship between income and the Intensity of Loss index (n=334, p=.000). This relationship is negatively correlated (r=-0.195). Therefore, people with a lower level of income experience a greater intensity of loss than those with more income. (See Figure 45.)

Figure 44: Education and Intensity of Loss

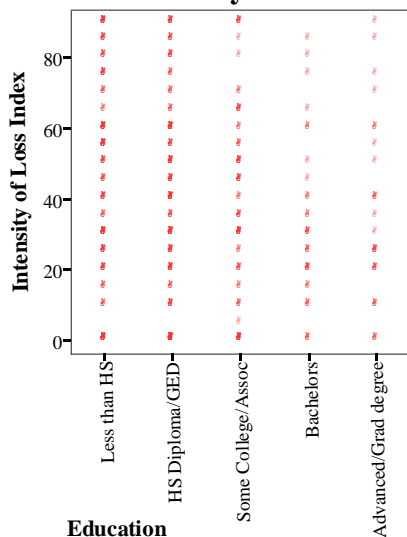
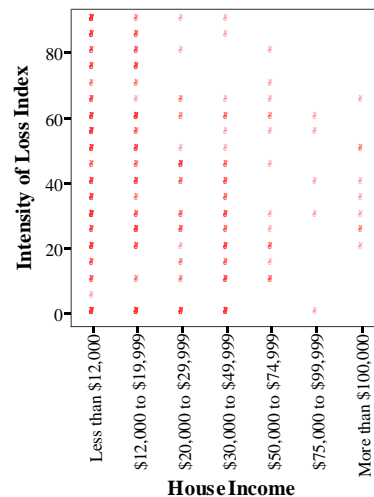


Figure 45: Income and Intensity of Loss



Physical Health

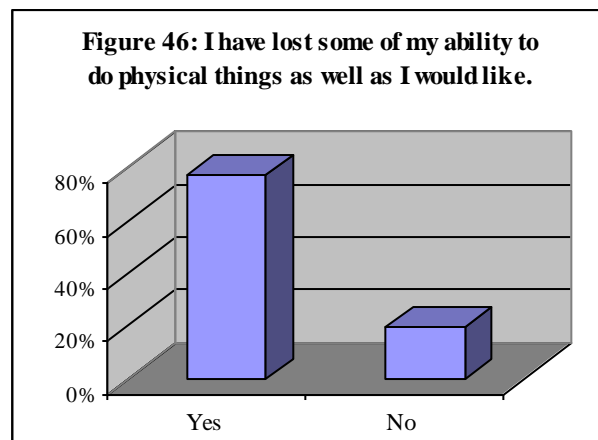
The fourth section refers to the respondent’s physical health. This section consists of two categorical questions asking the respondents whether they have age-related physical illness or a chronic health problem. Each affirmative answer is followed by a Likert scale measuring the degree of their ability to continue carrying out daily activities. The possible responses in the scale are: “Yes Definitely”, “Yes I Think So”, “Maybe Yes Maybe No”, “No I Don’t Think So” and “No Definitely Not”. The responses to the survey questions are described first to provide the context for which the inferential statistics are then analyzed.

Description of Survey Responses

Question 16: I have lost some of my ability to do physical things as well as I would like.

Of the 389 survey respondents, 77.1% stated that they have lost some of their ability to do physical things as well as they would like. Another 19.3% stated that they had not lost any of their physical abilities. The remaining 3.6% did not respond. (See Table 46 and Figure 46.)

Table 46: I have lost some of my ability to do physical things as well as I would like.		
	#	%
Yes	300	77.1%
No	75	19.3%
No Response	14	3.6%
Total	389	100.0%

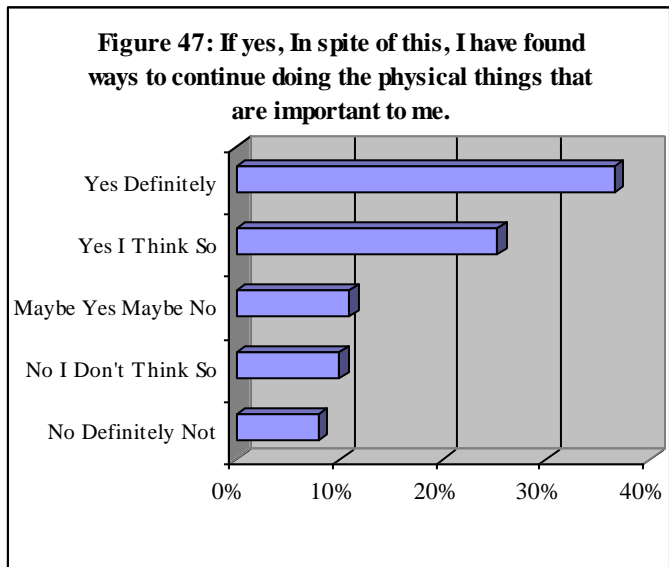


Question 16b: If yes, In spite of this, I have found ways to continue doing the physical things that are important to me.

Of the 300 respondents who answered yes to the previous question, 62% stated they definitely have or think they have found ways to continue doing the physical things that are important. Only 18% stated that they definitely have not or don’t think they have found ways to continue doing physical activities. Another 11% were unsure and the remaining 9% did not respond. (See Table 47 and Figure 47.)

Table 47: If yes, In spite of this, I have found ways to continue doing the physical things that are important to me.

	#	%
Yes Definitely	110	36.7%
Yes I Think So	76	25.3%
Maybe Yes Maybe No	33	11.0%
No I Don't Think So	30	10.0%
No Definitely Not	24	8.0%
No Response	27	9.0%
Total	300	100.0%

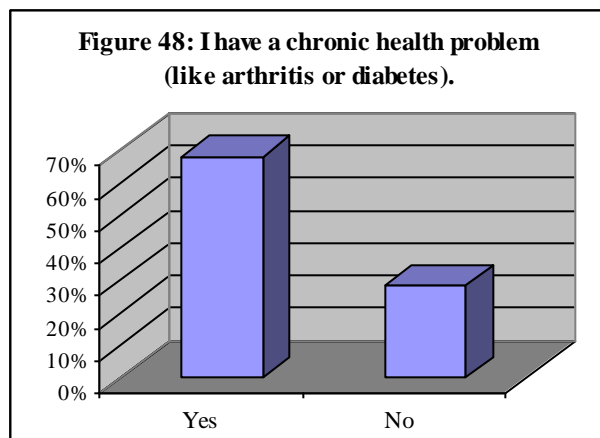


Question 17: I have a chronic health problem (like arthritis or diabetes).

Of the 389 survey respondents, 67.9% stated that they have a chronic health problem like arthritis or diabetes. Another 28.3% stated that they do not have a chronic health problem. The remaining 3.9% did not respond. (See Table 48 and Figure 48.)

Table 48: I have a chronic health problem (like arthritis or diabetes).

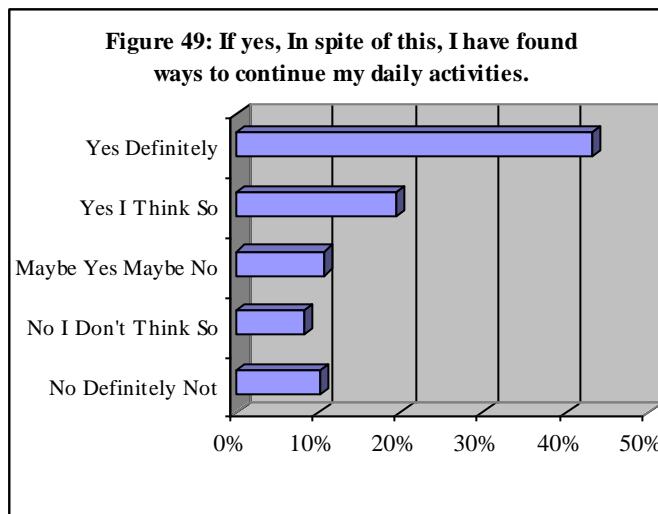
	#	%
Yes	264	67.9%
No	110	28.3%
No Response	15	3.9%
Total	389	100.0%



Question 17b: If yes, In spite of this, I have found ways to continue my daily activities.

Of the 264 respondents who answered yes to the previous question, 62.5% stated they definitely have or think they have found ways to continue their daily activities. Only 18.5% stated that they definitely have not or don't think they have found ways to continue their daily activities. Another 10.2% were unsure and the remaining 8.3% did not respond. (See Table 49 and Figure 49.)

Table 49: If yes, In spite of this, I have found ways to continue my daily activities.		
	#	%
Yes Definitely	114	43.2%
Yes I Think So	51	19.3%
Maybe Yes Maybe No	28	10.6%
No I Don't Think So	22	8.3%
No Definitely Not	27	10.2%
No Response	22	8.3%
Total	264	100.0%



Variables Impacting Health Questions

Indices were created using the physical health questions in order to provide a composite measure of how people responded to questions regarding their health and their ability to overcome these health problems. These indices, however, did not prove to have any significant differences with any of the other variables. Therefore, the individual health questions are used to determine if the ability to overcome health problems is affected by any of the demographic variables.

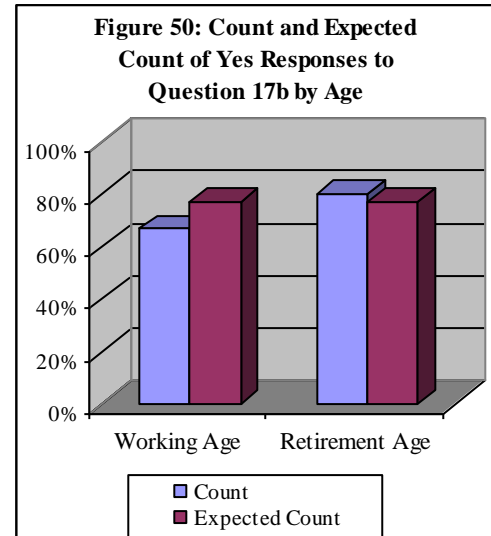
The “If Yes” responses to questions sixteen and seventeen were grouped to reflect whether the respondent said “Yes” (“Yes Definitely” and “Yes I Think So”) they have overcome the health problem or “No” (“No Definitely Not” and “No I Don’t Think So”) they have not overcome the health problems. Responses of “Maybe Yes Maybe No” and no response were not included in this analysis.

The only significant differences found were with question 17, “In spite of this [chronic health problem], I have found ways to continue my daily living.” The responses to this question are affected by the respondents’ age grouping, education grouping, and income level grouping.

A chi-square analysis was conducted on the response groupings to question 17b in regard to whether the respondent was of retirement age or not. Respondents 62 years old and younger are labeled “Working Age”, and respondents 63 years old and older are labeled “Retirement Age”. The analysis shows that age is associated to whether or not people feel they have found ways to continue their daily activities, in spite of their chronic health problem (chi-square=3.87, df=1, p=0.049). Respondents who are still of working age were more likely than expected to respond that they did not feel they have overcome their chronic health problem (16 “No” responses compared to an expected frequency of 11 responses). Respondents who are of retirement age were more likely than expected to respond that they have overcome their chronic health problem (130 “Yes” responses compared to an expected frequency of 125 responses). Therefore, people who develop a chronic health problem before they reach retirement age are more likely not to

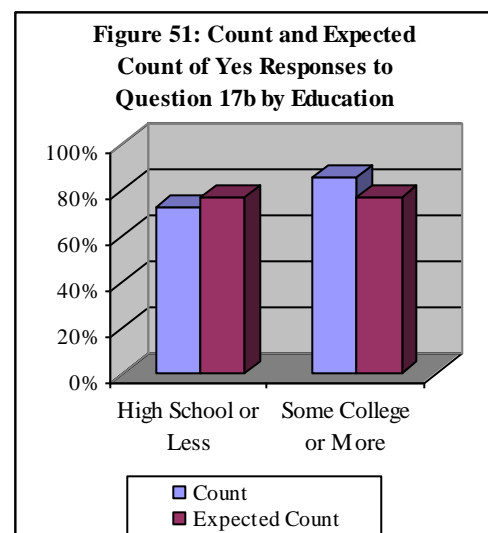
find ways to continue their daily activities than people who develop their chronic health problem after retirement. (See Table 50 and Figure 50.)

Table 50: Ability to Overcome Chronic Health Problems by Age Group						
	No		Yes		Total	
	#	%	#	%	#	%
Working Age						
Count	16	33%	32	67%	48	100%
<i>Expected Count</i>	11	23%	37	77%	48	
Retirement Age						
Count	32	20%	130	80%	162	100%
<i>Expected Count</i>	37	23%	125	77%	162	
Total	48	23%	162	77%	210	100%



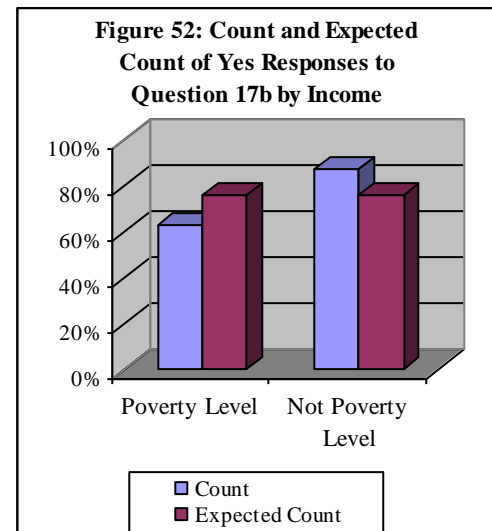
A chi-square analysis was conducted on the response groupings to question 17b in regard to whether or not the respondent had received any level of secondary education. The education groupings are labeled “High School or Less” and “Some College or More”. The analysis shows that education level is associated with whether or not people feel they have found ways to continue their daily activities, in spite of their chronic health problem (chi-square=4.02, df=1, p=0.045). Respondents with an education of high school or less were more likely than expected to respond that they did not feel they have overcome their chronic health problem (40 “No” responses compared to an expected frequency of 34 responses). Respondents with an education of some college or more were more likely than expected to respond that they have overcome their chronic health problem (54 “Yes” responses compared to an expected frequency of 48 responses). Therefore, people who are more educated are more likely than people with less education to be able to overcome a chronic health problem and continue their activities of daily living. (See Table 51 and Figure 51.)

Table 51: Ability to Overcome Chronic Health Problems by Education Group						
	No		Yes		Total	
	#	%	#	%	#	%
High School or Less						
Count	40	27%	108	73%	148	100%
<i>Expected Count</i>	34	23%	114	77%	148	
Some College or More						
Count	9	14%	54	86%	63	100%
<i>Expected Count</i>	15	23%	48	77%	63	
Total	49	23%	162	77%	211	100%



A chi-square analysis was conducted on the response groupings to question 17b in regards to whether the respondent was at poverty level or not. Respondents with an income of less than \$12,000 are labeled “Poverty Level”, and respondents with an income of \$12,000 or more are labeled “Not Poverty Level”. The analysis shows that poverty level is highly associated to whether or not people feel they have found ways to continue their daily activities, in spite of their chronic health problem (chi-square=14.82, df=1, p=0.000). Respondents with an income of less than \$12,000 were more likely than expected to respond that they did not feel they have overcome their chronic health problem (30 “No” responses compared to an expected frequency of 19 responses). Respondents with an income of \$12,000 or more were more likely than expected to respond that they have overcome their chronic health problem (89 “Yes” responses compared to an expected frequency of 78 responses). Therefore, people who are not at poverty level are more likely than people who are at poverty level to be able to overcome a chronic health problem and continue their activities of daily living. (See Table 52 and Figure 52.)

Table 52: Ability to Overcome Chronic Health Problems by Income Level						
	No		Yes		Total	
	#	%	#	%	#	%
Poverty Level						
Count	30	37%	51	63%	81	100%
<i>Expected Count</i>	19	23%	62	77%	81	
Not Poverty Level						
Count	13	13%	89	87%	102	100%
<i>Expected Count</i>	24	24%	78	76%	102	
Total	43	23%	140	77%	183	100%



Transportation

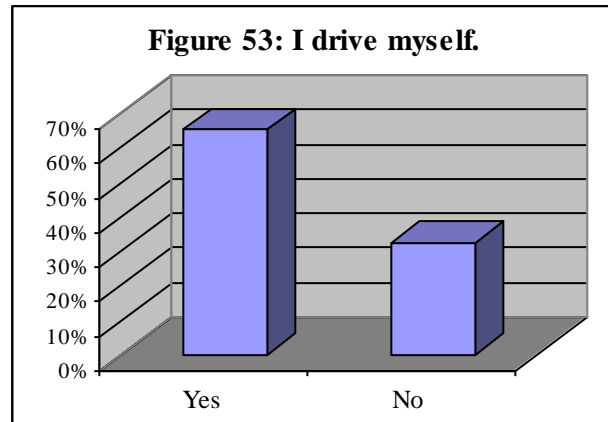
The fifth section refers to the respondents’ ability to drive themselves or not. This question also refers to a hypothetical measure where respondents were asked if they lose their abilities to drive in near future, then what kind of alternatives would they prefer. There are two options to respond to, one is whether to ask someone to give them a ride, or second, whether to use public transportation. The potential responses to these options are: “Yes Definitely”, “Yes I Think So”, “Maybe Yes Maybe No”, “No I Don’t Think So” and “No Definitely Not”. The responses to the survey questions are described first to provide the context for which the inferential statistics are then analyzed.

Description of Survey Responses

Question 18: I drive myself.

Of the 389 survey respondents, 65% stated that drive themselves. Another 32.4% stated that they do not drive themselves. The remaining 2.6% did not respond. (See Table 53 and Figure 53.)

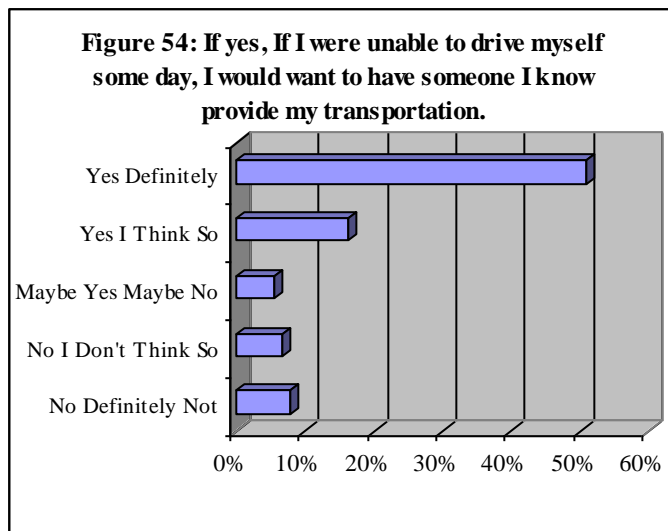
Table 53: I drive myself.		
	#	%
Yes	253	65.0%
No	126	32.4%
No Response	10	2.6%
Total	389	100.0%



Question 18b: If yes, If I were unable to drive myself some day, I would want to have someone I know provide my transportation.

Of the 253 respondents who stated that they do drive themselves, 67.2% stated they definitely would or think they would want to have someone they know provide their transportation. Only 14.6% stated that they definitely would not or don't think they would want someone they know to provide their transportation. Another 5.5% were unsure and the remaining 12.6% did not respond. (See Table 54 and Figure 54.)

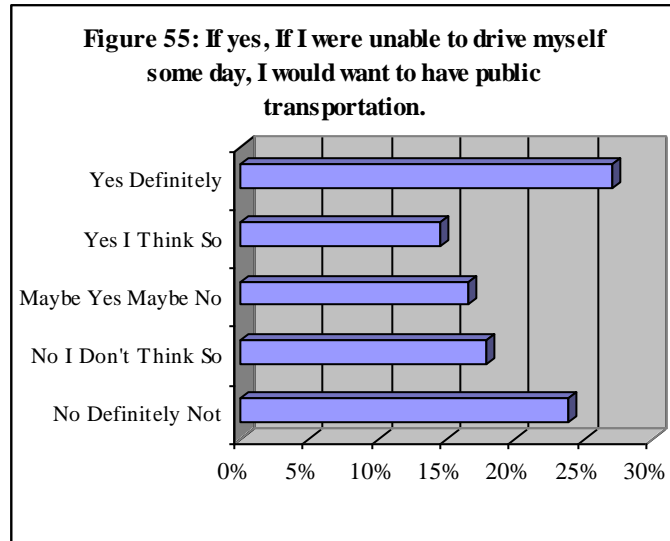
Table 54: If I were unable to drive myself, I would want to have someone I know provide my transportation.		
	#	%
Yes Definitely	129	51.0%
Yes I Think So	41	16.2%
Maybe Yes Maybe No	14	5.5%
No I Don't Think So	17	6.7%
No Definitely Not	20	7.9%
No Response	32	12.6%
Total	250	100.0%



Question 18c: If I were unable to drive myself, I would want to have public transportation.

Of the 253 respondents who stated that they do drive themselves, 25% stated they definitely would or think they would want to have public transportation. On the other hand, 25% stated that they definitely would not or don't think they would want to have public transportation. Another 9.9% were unsure and the remaining 40.1% did not respond. (See Table 55 and Figure 55.)

Table 55: If I were unable to drive myself some day, I would want to have public transportation.		
	#	%
Yes Definitely	41	16.3%
Yes I Think So	22	8.7%
Maybe Yes Maybe No	25	9.9%
No I Don't Think So	27	10.7%
No Definitely Not	36	14.3%
No Response	101	40.1%
Total	300	100.0%



Variables Impacting Transportation Questions

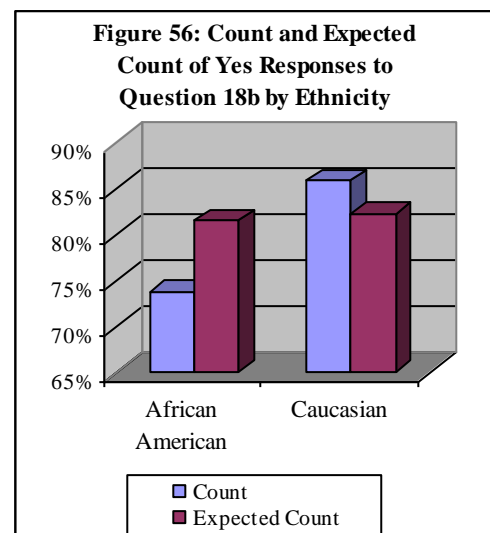
An index was created using the transportation questions in order to provide a composite measure of how people responded to questions regarding ways they would want to get around if they could not drive. These indices, however, did not prove to have any significant differences with any of the other variables. Therefore, the individual transportation questions are used to determine if the desire to use different transportation options is affected by any of the demographic variables.

The “If Yes” responses to question eighteen were grouped to reflect whether the respondent said “Yes” they would want their transportation provided in that manner (“Yes Definitely” and “Yes I Think So”) or “No” they would not want their transportation provided in that manner (“No Definitely Not” and “No I Don’t Think So”). Responses of “Maybe Yes Maybe No” and no response were not included in this analysis.

Significant differences were found with question 18b, “If I were unable to drive myself some day, I would want to have someone I know provide my transportation.” The responses to this question are affected by the respondents’ ethnicity and age grouping. Another significant difference found was that responses to question 18c, “If I were unable to drive myself some day, I would want to have public transportation” are affected by the respondent’s education grouping.

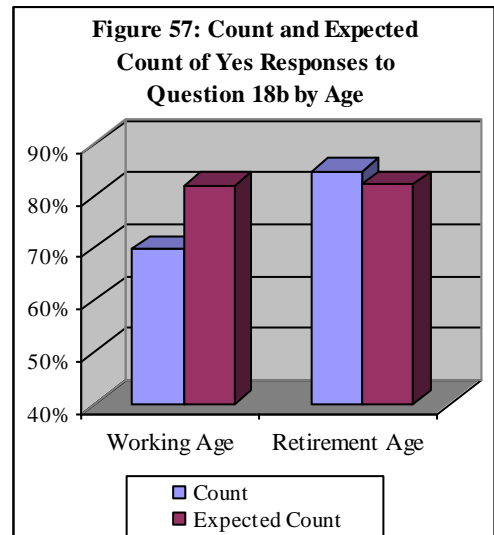
A chi-square analysis was conducted on the response groupings to question 18b in regards to whether the respondent was Caucasian or African-American. The analysis shows that ethnicity is associated to whether or not people want to have someone they know provide their transportation (chi-square=4.34, df=1, p=0.037). African-Americans were more likely than expected to respond that they would not want someone they know to provide their transportation (17 “No” responses compared to an expected frequency of 12 responses). Caucasians were more likely than expected to respond that they would want someone they know to provide their transportation (116 “Yes” responses compared to an expected frequency of 111 responses). Therefore, Caucasians who are currently driving are more likely to want someone they know provide their transportation if they couldn’t drive than African-Americans who are currently driving. (See Table 56 and Figure 56.)

Table 56: Desire to Want Someone They Know Provide Transportation by Ethnicity						
	No		Yes		Total	
	#	%	#	%	#	%
African-American						
Count	17	26%	48	74%	65	100%
<i>Expected Count</i>	12	18%	53	82%	65	
Caucasian						
Count	19	14%	116	86%	135	100%
<i>Expected Count</i>	24	18%	111	82%	135	
Total	36	18%	164	82%	200	100%



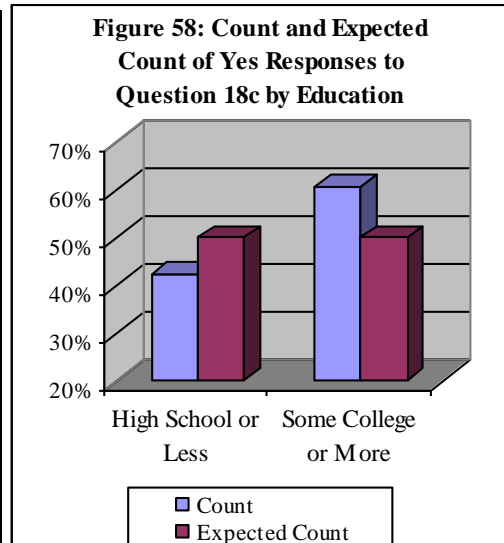
A chi-square analysis was conducted on the response groupings to question 18b in regards to whether or not the respondent was of retirement age. Respondents 62 years old and younger are labeled “Working Age”, and respondents 63 years old and older are labeled “Retirement Age”. The analysis shows that age is associated to whether or not people want to have someone they know provide their transportation (chi-square=4.12, df=1, p=0.042). Respondents still of working age were more likely than expected to respond that they would not want someone they know to provide their transportation (10 “No” responses compared to an expected frequency of 6 responses). Respondents of retirement age were more likely than expected to respond that they would want someone they know to provide their transportation (116 “Yes” responses compared to an expected frequency of 111 responses). Therefore, people of retirement age who are currently driving are more likely to want someone they know providing their transportation if they could not drive than people who are still of working age who are currently driving. (See Table 57 and Figure 57.)

Table 57: Desire to Want to Have Someone They Know Provide their Transportation by Age						
	No		Yes		Total	
	#	%	#	%	#	%
Working Age						
Count	10	30%	23	70%	33	100%
<i>Expected Count</i>	6	18%	27	82%	33	
Retirement Age						
Count	26	15%	142	85%	168	100%
<i>Expected Count</i>	30	18%	138	82%	168	
Total	36	18%	165	82%	201	100%



A chi-square analysis was conducted on the response groupings to question 18c in regards to whether or not the respondent had received any level of secondary education. The education groupings are labeled “High School or Less” and “Some College or More”. The analysis shows that education is associated to whether or not people want to have public transportation (chi-square=4.03, df=1, p=0.045). Respondents with an education of high school or less were more likely than expected to respond that they would not want public transportation (42 “No” responses compared to an expected frequency of 36.5 responses). Respondents with an education of some college or more were more likely than expected to respond that they would want to have public transportation (31 “Yes” responses compared to an expected frequency of 25.5 responses). Therefore, seniors with a lower level of education who are currently driving are less likely to want to use public transportation if they could no longer drive than seniors with a higher level of education who are currently driving. (See Table 58 and Figure 58.)

Table 58: Desire to Want to Have Public Transportation by Education						
	No		Yes		Total	
	#	%	#	%	#	%
High School or Less						
Count	42	58%	31	42%	73	100%
<i>Expected Count</i>	36.5	50%	36.5	50%	73	
Some College or More						
Count	20	39%	31	61%	51	100%
<i>Expected Count</i>	25.5	50%	25.5	50%	51	
Total	62	50%	62	50%	124	100%

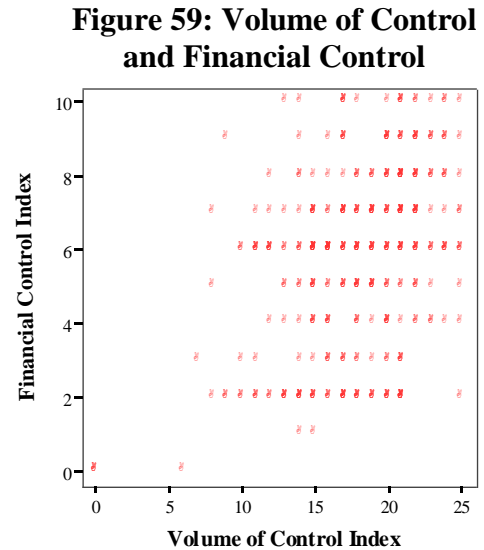


Relationships Between Domains

After analyzing each domain separately, indices and key questions from each domain were compared to each other to determine if any significant relationships exist. Several significant relationships were found. These relationships are explained below.

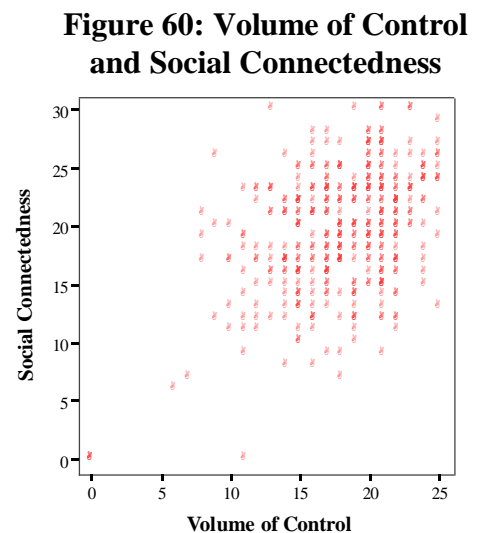
Volume of Control and Financial Control

Each respondent's score on the volume of control index increases the more the respondent believes that they have control over the decisions that affect their lives. Each respondent's score on the financial control index increases the more the respondent believes they have control over their financial stability. A Pearson correlation was conducted on these variables to determine if, and how, they are related. The analysis shows that volume of control and financial control have a significant positive linear relationship ($r=0.389$, $n=389$, $p=0.000$). Therefore, seniors who feel they have control over the decisions that affect their lives are more likely to feel they also have control over their financial stability. In addition, seniors who have control over their financial stability are more likely to also feel they have control over the decisions that affect their lives. (See Figure 59.)



Volume of Control and Social Connectedness

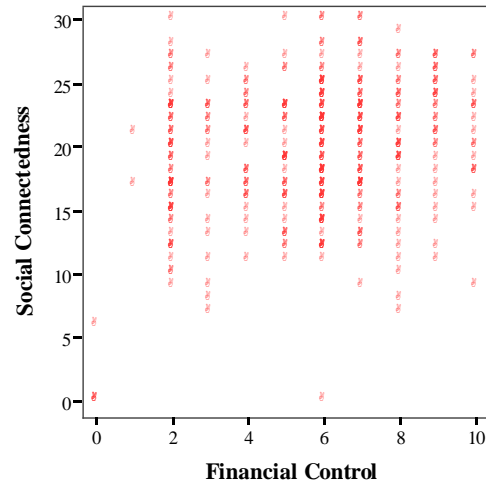
Each respondent's score on the volume of control index increases the more the respondent believes that they have control over the decisions that affect their lives. Each respondent's score on the social connectedness index increases the more the respondent is in contact with friends and family and spends more time on activities. A Pearson correlation was conducted on these variables to determine if, and how, they are related. The analysis shows that volume of control and social connectedness have a significant and strong positive linear relationship ($r=0.426$, $n=389$, $p=0.000$). Therefore, seniors who feel they have control over the decisions that affect their lives are more likely to keep in contact with friends and family and participate in more activities. In addition, seniors who are more socially active are more likely to feel they can control the decisions that affect their well-being. (See Figure 60.)



Financial Control and Social Connectedness

Each respondent's score on the financial control index increases the more the respondent feels they have control over their financial stability. Each respondent's score on the social connectedness index increases the more the respondent is in contact with friends and family and spends more time on activities. A Pearson correlation was conducted on these variables to determine if, and how, they are related. The analysis shows that financial control and social connectedness have a significant positive relationship ($n=389$, $p=0.000$). However, this relationship is only somewhat linear ($r=0.211$). Therefore, the majority of seniors who feel they have control over their financial stability are more likely to keep in contact with friends and family and participate in more activities. (See Figure 61.) However, by selecting only those cases that have low financial control and high social connectedness, it can be seen that those respondents are more likely to be African-American females with an income of \$20,000 or less. In addition, by selecting those cases that have high financial control and low social connectedness, it can be seen that those respondents are more likely to be Caucasians with an income of \$20,000 or more.

Figure 61: Financial Control and Social Connectedness



Ability to Do Physical Activities

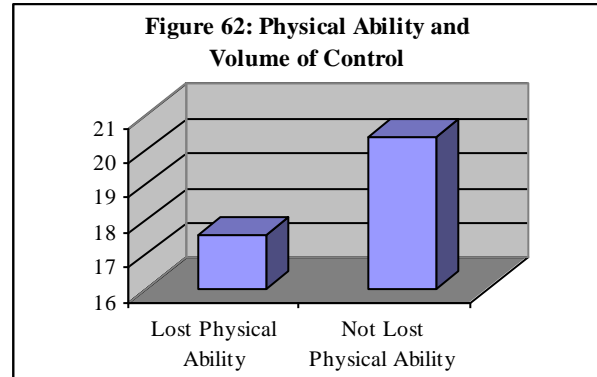
Analyses were conducted on the indices and responses to question 16 in order to determine what relationships exist with the respondents' ability to do physical activities. The analysis shows that physical ability is directly related to volume of control, financial control, social connectedness, and intensity of loss. Analyses were also conducted on the indices and groupings of responses to question 16b in order to determine what relationships exist with the respondent's ability to overcome their loss of physical abilities. This analysis shows that the ability to overcome problems with physical abilities is directly related to volume of control.

Physical Ability and Volume of Control

An independent samples t-test was conducted on the volume of control index and responses to question 16, "I have lost some of my ability to do physical things as well as I would like." The analysis shows that the ability to control the decisions that affect life is significantly related to physical ability ($t=5.73$, $df=373$, $p=0.000$). Respondents who stated that they had not lost any of their ability to do physical things had a mean volume of control index score of 20.39 ($n=75$, $SD=3.25$). On the other hand, respondents who stated that they had lost some of their ability to do physical things had a mean volume of control index score of 17.55 ($n=300$, $SD=3.96$).

Therefore, seniors who do not feel that they have lost some of their ability to do physical things are more likely to feel that they have control over the decisions that affect their well-being. In addition, seniors who feel that they have lost some of their physical ability are more likely to feel that they do not have control over their well-being. (See Table 62 and Figure 62.)

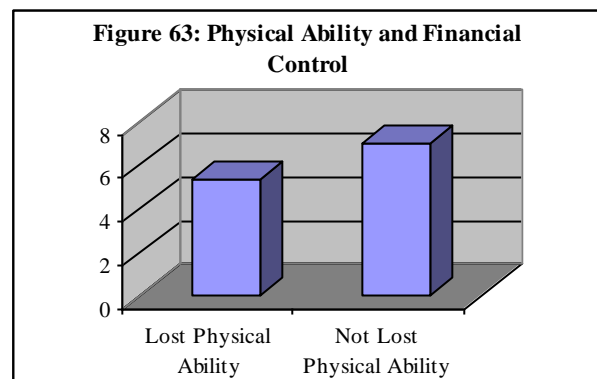
Table 62: Physical Ability and Volume of Control		
	Lost Physical Ability	Not Lost Physical Ability
Average Index Score	17.55	20.39
N	300	75
SD	3.96	3.25



Physical Ability and Financial Control

An independent samples t-test was conducted on the financial control index and responses to question 16, “I have lost some of my ability to do physical things as well as I would like.” The analysis shows that the ability to control financial stability is significantly related to physical ability ($t=5.88$, $df=123$, $p=0.000$). Respondents who stated that they had not lost any of their ability to do physical things had a mean financial control index score of 7.0 ($n=75$, $SD=2.11$). On the other hand, respondents who stated that they had lost some of their ability to do physical things had a mean financial index score of 5.36 ($n=300$, $SD=2.32$). Therefore, seniors who do not feel that they have lost some of their ability to do physical things are more likely to feel that they have control over their financial stability. In addition, seniors who feel that they have lost some of their physical ability are more likely to feel less financially stable. (See Table 63 and Figure 63.)

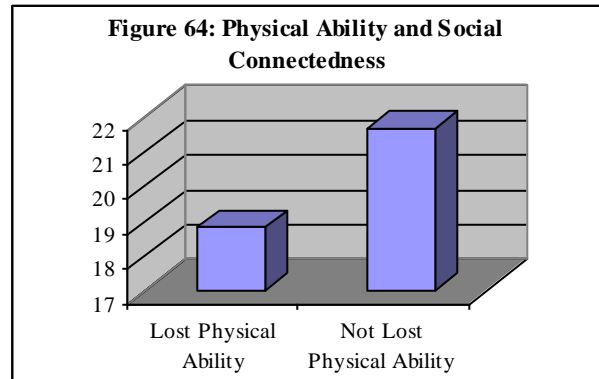
Table 63: Physical Ability and Financial Control		
	Lost Physical Ability	Not Lost Physical Ability
Average Index Score	5.36	7.00
N	300	75
SD	2.32	2.11



Physical Ability and Social Connectedness

An independent samples t-test was conducted on the social connectedness index and responses to question 16, “I have lost some of my ability to do physical things as well as I would like.” The analysis shows that the level of involvement in kin and social networks is significantly related to physical ability ($t=4.79$, $df=126$, $p=0.000$). Respondents who stated that they had not lost any of their ability to do physical things had a mean social connectedness index score of 21.67 ($n=75$, $SD=4.49$). On the other hand, respondents who stated that they had lost some of their ability to do physical things had a mean social connectedness index score of 18.81 ($n=300$, $SD=5.08$). Therefore, seniors who do not feel that they have lost some of their ability to do physical things are more likely to have strong kin and social networks. In addition, seniors who feel that they have lost some of their physical ability are more likely to have weaker kin and social networks. (See Table 64 and Figure 64.)

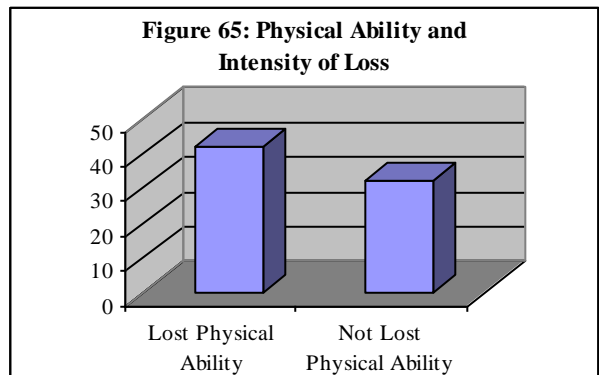
Table 64: Physical Ability and Social Connectedness		
	Lost Physical Ability	Not Lost Physical Ability
Average Index Score	18.81	21.67
N	300	75
SD	5.08	4.49



Physical Ability and Intensity of Loss

An independent samples t-test was conducted on the intensity of loss index and responses to question 16, “I have lost some of my ability to do physical things as well as I would like.” The analysis shows that the frequency of thoughts about a lost loved one is significantly negatively related to physical ability ($t=-3.04$, $df=121$, $p=0.003$). Respondents who stated that they had not lost any of their ability to do physical things had a mean intensity of loss index score of 32.13 ($n=75$, $SD=24.59$). On the other hand, respondents who stated that they had lost some of their ability to do physical things had a mean intensity of loss index score of 41.95 ($n=300$, $SD=26.71$). Therefore, seniors who feel that they have lost some of their ability to do physical things are more likely to think about the people they have lost much more often than those who have not lost any physical ability. (See Table 65 and Figure 65.)

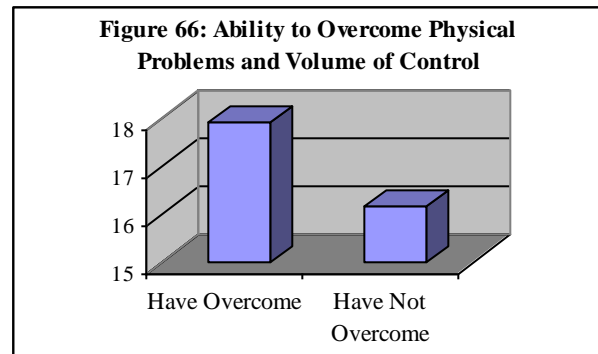
Table 65: Physical Ability and Intensity of Loss		
	Lost Physical Ability	Not Lost Physical Ability
Average Index Score	41.95	32.13
N	300	75
SD	26.71	24.59



Ability to Overcome Physical Problems and Volume of Control

An independent samples t-test was conducted on the volume of control index and responses to question 16b, “In spite of this [loss of physical ability], I have found ways to continue doing the physical things that are important to me.” The analysis shows that the respondent’s ability to overcome their physical problems is significantly related to their level of control ($t=3.08$, $df=89$, $p=0.003$). Respondents who stated that they were able to find ways to continue doing the things that are important to them had a mean volume of control index score of 17.93 ($n=186$, $SD=3.86$). On the other hand, respondents who stated that they were not able to find ways to continue doing the things that are important to them had a mean volume of control index score of 16.15 ($n=54$, $SD=3.71$). Therefore, seniors who have more control are more likely to be able to overcome physical problems. (See Table 66 and Figure 66.)

Table 66: Ability to Overcome Physical Problems and Volume of Control		
	Have Overcome	Have Not Overcome
Average Index Score	17.93	16.15
N	186	54
SD	3.86	3.71



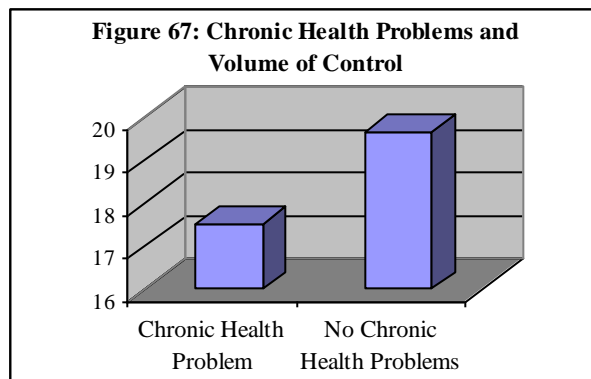
Chronic Health Problems

Analyses were conducted on the indices and responses to question 17 in order to determine what relationships exist with whether or not the respondent reported a chronic health problem. The analysis shows that chronic health problems are directly related to volume of control, financial control, social connectedness, and intensity of loss. Analyses were also conducted on the indices and groupings of responses to question 17b in order to determine what relationships exist with the respondent’s ability to continue their daily activities. This analysis shows that the ability to continue daily activities is directly related to volume of control and intensity of loss.

Chronic Health Problems and Volume of Control

An independent samples t-test was conducted on the volume of control index and responses to question 17, “I have a chronic health problem (like arthritis or diabetes).” The analysis shows that the ability to control the decisions that affect life is significantly related to whether or not the respondent has a chronic health problem ($t=5.16$, $df=224$, $p=0.000$). Respondents who stated that they have a chronic health problem had a mean volume of control index score of 17.51 ($n=264$, $SD=3.95$). On the other hand, respondents who stated that they did not have a chronic health problem had a mean volume of control index score of 19.66 ($n=110$, $SD=3.57$). Therefore, seniors who have a chronic health problem are more likely to feel that they have less control over the decisions that affect their lives. (See Table 67 and Figure 67.)

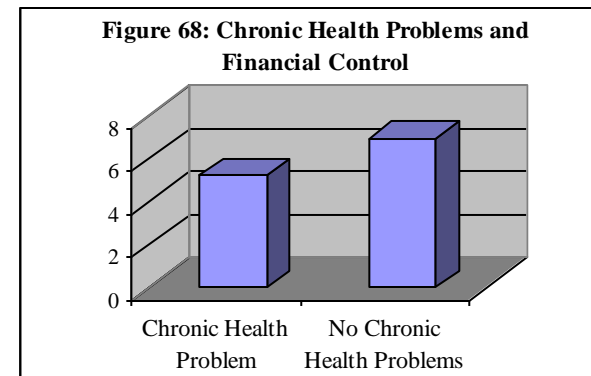
Table 67: Chronic Health Problems and Volume of Control		
	Chronic Health Problem	No Chronic Health Problems
Average Index Score	17.51	19.66
N	264	110
SD	3.95	3.57



Chronic Health Problems and Financial Control

An independent samples t-test was conducted on the financial control index and responses to question 17, “I have a chronic health problem (like arthritis or diabetes).” The analysis shows that the ability to control financial stability is significantly related to whether or not the respondent has a chronic health problem ($t=6.87$, $df=372$, $p=0.000$). Respondents who stated that they have a chronic health problem had a mean financial control index score of 5.21 ($n=264$, $SD=2.31$). On the other hand, respondents who stated that they did not have a chronic health problem had a mean financial index score of 6.95 ($n=110$, $SD=2.02$). Therefore, seniors who have a chronic health problem are more likely to feel that they have less control over their financial stability. (See Table 68 and Figure 68.)

Table 68: Chronic Health Problems and Financial Control		
	Chronic Health Problem	No Chronic Health Problems
Average Index Score	5.21	6.95
N	264	110
SD	2.31	2.02

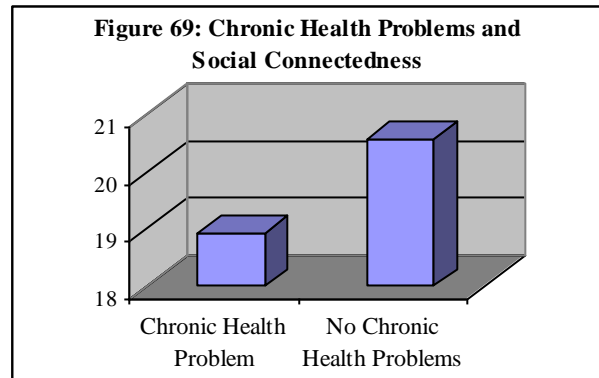


Chronic Health Problems and Social Connectedness

An independent samples t-test was conducted on the social connectedness index and responses to question 17, “I have a chronic health problem (like arthritis or diabetes).” The analysis shows that whether or not the respondent has a chronic health problem is significantly related to the level of involvement in kin and social networks ($t=3.01$, $df=225$, $p=0.003$). Respondents who stated that they have a chronic health problem had a mean social connectedness index score of 18.92 ($n=264$, $SD=5.15$). On the other hand, respondents who stated that they did not have a chronic health problem had a mean social connectedness index score of 20.55 ($n=110$, $SD=4.64$).

Therefore, seniors who do not have a chronic health problem are more likely to be actively involved in their kin and social networks. In addition, seniors who do have a chronic health problem are more likely to be less socially involved. (See Table 69 and Figure 69.)

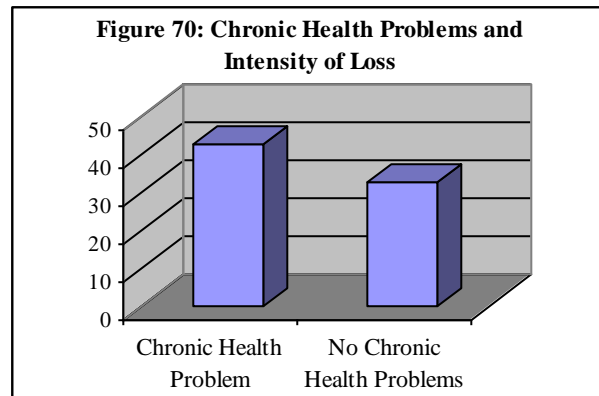
Table 69: Chronic Health Problems and Social Connectedness		
	Chronic Health Problem	No Chronic Health Problems
Average Index Score	18.92	20.55
N	264	110
SD	5.15	4.64



Chronic Health Problems and Intensity of Loss

An independent samples t-test was conducted on the intensity of loss index and responses to question 17, “I have a chronic health problem (like arthritis or diabetes).” The analysis shows that the frequency of thoughts about a lost loved one is significantly negatively related to whether or not the respondent has a chronic health problem ($t=-3.48$, $df=217$, $p=0.001$). Respondents who stated that they have a chronic health problem had a mean intensity of loss index score of 42.92 ($n=264$, $SD=26.54$). On the other hand, respondents who stated that they did not have a chronic health problem had a mean intensity of loss index score of 32.91 ($n=110$, $SD=24.81$). Therefore, seniors who have a chronic health problem are more likely to think about the people they have lost much more often than those who do not have a chronic health problem. (See Table 70 and Figure 70.)

Table 70: Chronic Health Problems and Intensity of Loss		
	Chronic Health Problem	No Chronic Health Problems
Average Index Score	42.92	32.91
N	264	110
SD	26.54	24.81

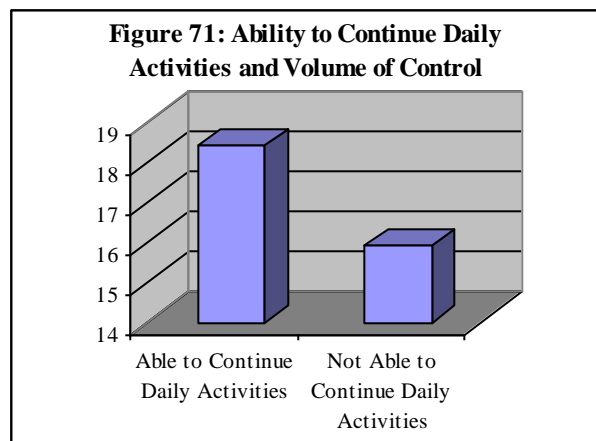


Ability to Continue Daily Activities and Volume of Control

An independent samples t-test was conducted on the volume of control index and responses to question 17b, “In spite of this [chronic health problem], I have found ways to continue my daily activities.” The analysis shows that the respondent’s ability to overcome obstacles caused by

their chronic health problem is significantly related to the perception of their own ability to control their lives ($t=4.20$, $df=81$, $p=0.000$). Respondents who stated that they were able to find ways to continue their daily activities had a mean volume of control index score of 18.39 ($n=165$, $SD=3.73$). On the other hand, respondents who stated that they have not found ways to continue their daily activities had a mean volume of control index score of 15.90 ($n=49$, $SD=3.61$). Therefore, seniors who have more volume of control are more likely to be able to continue their daily activities, in spite of their chronic health problem. (See Table 71 and Figure 71.)

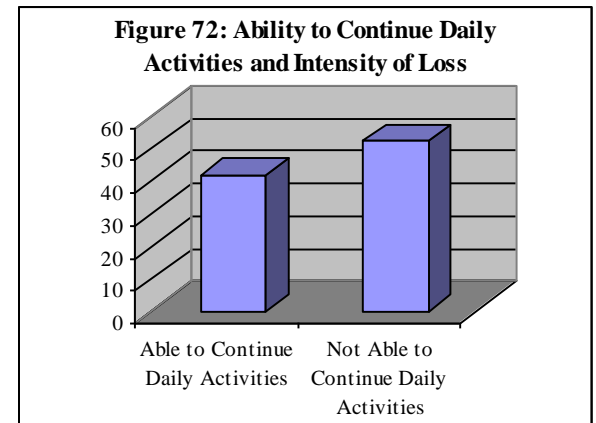
Table 71: Ability to Continue Daily Activities and Volume of Control		
	Able to Continue Daily Activities	Not Able to Continue Daily Activities
Average Index Score	18.39	15.90
N	165	49
SD	3.73	3.61



Ability to Continue Daily Activities and Intensity of Loss

An independent samples t-test was conducted on the intensity of loss index and responses to question 17b, “In spite of this [chronic health problem], I have found ways to continue my daily activities.” The analysis shows that the respondent’s ability to overcome obstacles caused by their chronic health problem is significantly negatively related to the frequency of thoughts about a lost loved one ($t=-2.50$, $df=78$, $p=0.015$). Respondents who stated that they have found ways to continue their daily activities had a mean intensity of loss index score of 41.76 ($n=165$, $SD=25.4$). On the other hand, respondents who stated that they have not found ways to continue their daily activities had a mean intensity of loss index score of 52.14 ($n=49$, $SD=25.58$). Therefore, seniors who have a greater intensity of loss are less likely to be able to find ways to overcome their chronic health problem and continue their daily activities. (See Table 72 and Figure 72.)

Table 72: Ability to Continue Daily Activities and Intensity of Loss		
	Able to Continue Daily Activities	Not Able to Continue Daily Activities
Average Index Score	41.76	52.14
N	165	49
SD	25.40	25.58



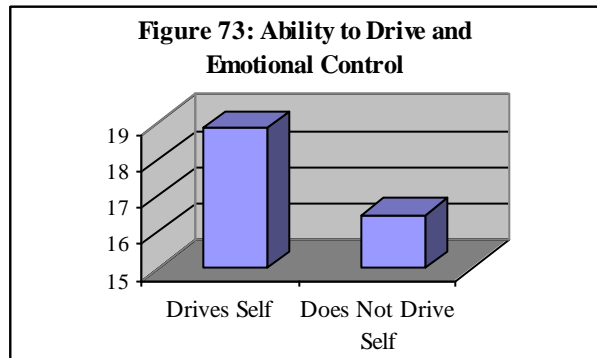
Transportation

Analyses were conducted on the indices and responses to question 18 in order to determine what relationships exist with whether or not the respondent reported that they are currently driving. The analysis shows that the ability to drive is directly related to volume of control, financial control, and social connectedness. Analyses were also conducted on the indices and groupings of responses to questions 18b and 18c in order to determine what relationships exist with the respondent’s desire to use other transportation options. No significant relationships were found in this analysis.

Ability to Drive and Volume of Control

An independent samples t-test was conducted on the volume of control index and responses to question 18, “I drive myself.” The analysis shows that the degree of perception of control is significantly related to whether or not the respondent is able to drive themselves ($t=5.45$, $df=222$, $p=0.000$). Respondents who stated that they do drive had a mean volume of control index score of 18.87 ($n=253$, $SD=3.64$). On the other hand, respondents who stated that they do not drive had a mean volume of control index score of 16.48 ($n=126$, $SD=4.18$). Therefore, seniors who are still able to drive themselves feel that they have more control over the decisions that affect their lives. (See Table 73 and Figure 73.)

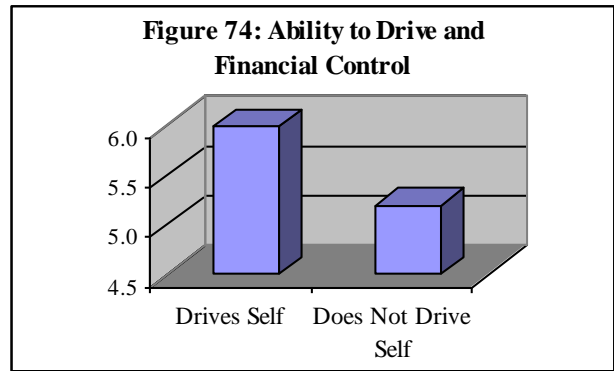
Table 73: Ability to Drive and Volume of Control		
	Drives Self	Does Not Drive Self
Average Index Score	18.87	16.48
N	253	126
SD	3.64	4.18



Ability to Drive and Financial control

An independent samples t-test was conducted on the financial control index and responses to question 18, “I drive myself.” The analysis shows that the ability to control their financial well-being is significantly related to whether or not the respondent is able to drive themselves ($t=3.19$, $df=377$, $p=0.002$). Respondents who stated that they do drive had a mean financial control index score of 6.0 ($n=253$, $SD=2.26$). On the other hand, respondents who stated that they do not drive had a mean financial control index score of 5.20 ($n=126$, $SD=2.43$). Therefore, seniors who are still able to drive themselves feel that they have more control over their financial stability. (See Table 74 and Figure 74.)

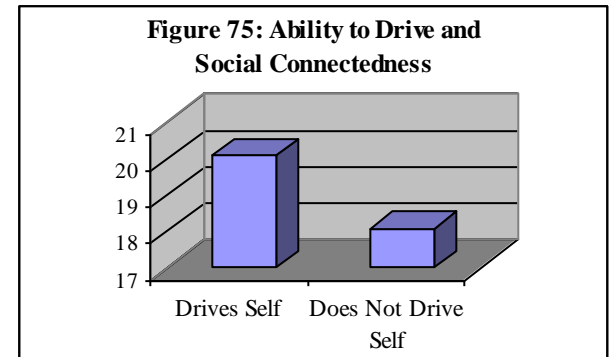
Table 74: Ability to Drive and Financial Control		
	Drives Self	Does Not Drive Self
Average Index Score	6.00	5.20
N	253	126
SD	2.26	2.43



Ability to Drive and Social Connectedness

An independent samples t-test was conducted on the social connectedness index and responses to question 18, “I drive myself.” The analysis shows that the level of involvement with kin and social networks is significantly related to whether or not the respondent is able to drive themselves ($t=3.60$, $df=238$, $p=0.000$). Respondents who stated that they do drive had a mean social connectedness index score of 20.08 ($n=253$, $SD=4.89$). On the other hand, respondents who stated that they do not drive had a mean social connectedness index score of 18.09 ($n=126$, $SD=5.17$). Therefore, seniors who are still able to drive themselves are more likely to be actively involved in family and social activities. In addition, seniors who are not able to drive are less likely to be actively involved in kin and social networks. (See Table 75 and Figure 75.)

Table 75: Ability to Drive and Social Connectedness		
	Drives Self	Does Not Drive Self
Average Index Score	20.08	18.09
N	253	126
SD	4.89	5.17

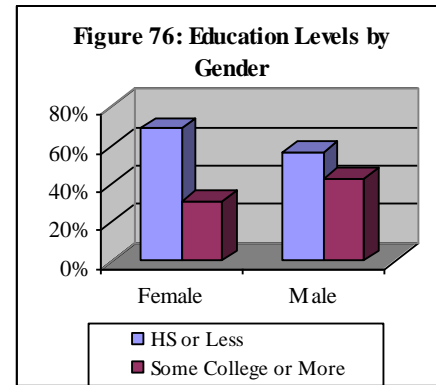


Inter-Demographic Analysis

In order to understand differences in certain demographics characteristics, the education and income level of each gender are described, in addition to the income of each ethnicity.

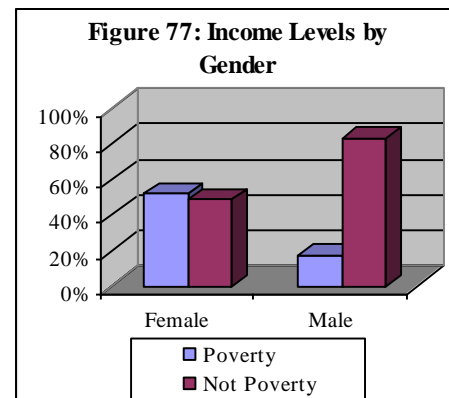
Of the 243 females who provided their education level, 69% only achieved an education of high school or less. Only 31% of females reported that they have attended some college or received some higher level of education. Of the 114 males who provided their education level, 57% reported that they have received an education of high school or less, and 43% reported that they have attended some college or more. (See Table 76 and Figure 76.)

Table 76: Education Levels by Gender						
	Female		Male		Total	
	#	%	#	%	#	%
High School or Less	168	69%	65	57%	233	65%
Some College or More	75	31%	49	43%	124	35%
Total	243	100%	114	100%	357	100%



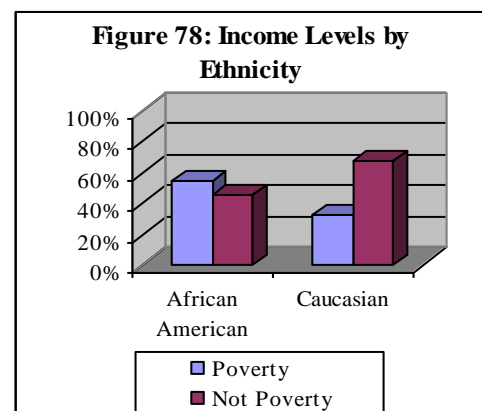
Of the 209 females who provided their income level, 52% are at or below poverty level, and 48% are above poverty level. On the other hand, of the 105 males who provided their income level, 83% reported that they have more than \$12,000 in annual household income, and only 17% reported that are at or below poverty level. (See Table 77 and Figure 77.)

Table 77: Income Levels by Gender						
	Female		Male		Total	
	#	%	#	%	#	%
Poverty Level	108	52%	18	17%	126	40%
Above Poverty	101	48%	87	83%	188	60%
Total	209	100%	105	100%	314	100%



Of the 120 African-Americans who provided their income level, 55% are at or below poverty level, and 45% are above poverty level. On the other hand, of the 207 Caucasians who provided their income level, 68% reported that they have more than \$12,000 in annual household income, and only 32% reported that they are at or below poverty level. (See Table 78 and Figure 78.)

Table 78: Income Levels by Ethnicity						
	African-American		Caucasian		Total	
	#	%	#	%	#	%
Poverty Level	66	55%	67	32%	133	41%
Above Poverty	54	45%	140	68%	194	59%
Total	120	100%	207	100%	327	100%



DISCUSSION

The Respondents

The respondents to the surveys were somewhat representative of the senior (63 and older) population of the state, with several exceptions. The most important of these exceptions are that twice as many people ages 76 and older are in the sample as compared to the senior population as a whole (49.1% versus 22.4%) and that there is an over-representation of African-Americans (38.3% versus 21.8% in the senior population as a whole). The survey respondents are also more female than the general senior population (63.5% versus 56.4%); there are more widows than one would expect; and there are more individuals with a household income of less than \$20,000 a year.

An examination of the demographics of all respondents ages 76 and older reveals that the over-representation of this group may be causing over-representation in the other demographic variables noted above. Respondents in this age category are more likely to be female (69.6%), widowed (64.9%), with an education level of high school or less (73.2%), and an income level of less than \$12,000 (41.4%) or of \$12,000 to \$19,999 (25.1%). The only difference that is not explained by the over-representation of this age group is the larger number of African-Americans responding to the survey than are in the general senior population.

By reviewing the demographics of all African-American respondents, it can be seen that these respondents are more likely to be female (77.2%), widowed (58.4%) or married (23.5%), between the ages of 66 and 85 (66.4%), with an education level of high school or less (72.5%), and an income of less than \$12,000 (44.3%) or of \$12,000 to \$19,999 (20.1%).

Therefore, the two population segments that are truly over-represented in this sample are older widowed females and African-American females. Previous research studies have shown that the majority of African-American elderly people are involved in strong and viable social support networks of immediate and extended family and non-kin associates like the church members and friends.³ African-Americans are also more likely to report having more emotional support than Caucasians. This information should be kept in mind when reviewing this report.

Presentation of Discussion

The findings of this study are presented by domain and relationships among domains. Each domain is analyzed through a description of the responses to the questions based on the themes; calculation of an index for the domain; and determination of associations with demographic variables. Relationships among domains are then established. The discussion of the findings will follow that same format.

³ Barker, Morrow and Mitteness, 1998

Sense of Control

The analysis of the sense of control domain was divided into two sub-domains, volume of control and financial control. Indices were developed for each of these. The volume of control sub-domain is significantly related to ethnicity, age, education and household income.

The older an individual is, the more likely that individual is to feel that he or she has less control over their lives. But there is a large subgroup of older seniors who do not display the same pattern. Further analysis determined that members of this subgroup attend activities at church several times a week. The difference in volume of control between the group that attends church activities several times a week and those who hardly ever attend church activities is highly significant.

Seniors who have higher levels of education are more likely to have higher scores on the volume of control index. There is an exception to this, however, in that seniors who have less than a high school education have higher scores than would be expected.

A similar pattern exists for income. In general, the higher one's income, the more likely the senior is to have a higher score on the volume of control index. However, there is a large subgroup of seniors with lower levels of income who feel they have control over the decisions that affect their lives.

The financial control sub-domain is significantly related to ethnicity, education and household income. Caucasians are more likely to score higher on the financial control index than African Americans. The higher the educational level, the more likely one is to score high on the financial control index. The higher the income, the more likely someone is to score high on the financial control index. However, as with volume of control, there is a large subgroup of seniors with lower levels of education and income who do not exhibit this same pattern.

Social Connectedness

The social connectedness index is significantly related to gender and ethnicity. Females are more likely to feel socially connected than males and African-Americans are more likely to feel socially connected than Caucasians.

An additional analysis was conducted to examine where males and females go to be with other people so that the gender differences could be more closely examined. Women were somewhat more likely than men to go out of their homes to socialize. Of greater interest is where they go. Women go to church and senior/community centers more often than men. Men go to club activities, shopping and visiting with family or friends more often than women.

Feelings of Loss

Intensity of loss and level of loss scales were created to analyze this domain. Not surprisingly, the more people one has lost from one's life, the greater the intensity of feelings of loss. There is a close to perfect linear relationship between the two.

In addition to level of loss, the intensity of loss scale was significantly related to gender, the ethnicity of widows, education and household income. Females are more likely to experience the intensity of personal loss than men. A similar finding was made regarding widows, but this may be measuring the same phenomenon. However, Caucasian widows experience far more intense loss than African-American widows.

People with lower levels of education experience their personal losses more intensely than people with higher levels of education, and people with a lower income experience their losses more intensely than those with more income.

Physical Health

Ultimately, how the other domains interact with physical health determines the relationship between the domains and long term care. Examining the responses to the health domain questions and relating them to demographic variables and other domains is therefore of great importance.

Over three-fourths of the respondents report they have lost some of their physical abilities. Of those who have, 62% have found ways to continue doing the physical things that are important to them. Almost three-fourths of the respondents report a chronic health problem. Of these, almost 63% have found ways to continue their daily activities.

Analysis of the health questions indicates one question that has significant relationships with demographic variables. That one question is the ability to overcome chronic health problems. The responses to this question are affected by the respondents' age grouping, education grouping and income level grouping.

Seniors who have reached retirement age are more likely than expected to report that they have overcome chronic health problems. On the other hand, seniors still of working age are less likely than expected to overcome chronic health problems. Respondents with a high school or less education are more likely than expected to report that they have not overcome chronic health problems, while respondents with more than a high school education are more likely than expected to report they have overcome chronic health problems. The same pattern holds true with persons who have a household income of less than \$12,000 versus those with a higher household income.

In summary, respondents who are of retirement age, have more than a high school education, and have household incomes of over \$12,000 a year are more likely to be able to overcome chronic health problems and continue their daily activities.

Transportation

Sixty-five percent of the respondents still drive themselves. Of these, 67.2% said they would want someone they know to provide their transportation if they are no longer able to drive themselves. The responses to this question were affected by age, education and ethnicity.

Caucasians were more likely to say they wanted someone they know to drive them. Respondents still of working age are less likely than expected to want someone they know drive them should they no longer be able to drive, while respondents of retirement age were more likely than expected to do so. Education is associated with whether respondents would want to use public transportation if they could no longer drive. Respondents with some college or more education were more likely than expected to use public transportation and respondents with less education were less likely than expected to want to use public transportation.

Relationships Among Domains

There is a positive, linear relationship between volume of control and financial control. That is, those who believe they have a higher volume of control also believe they have a higher level of financial control, and vice versa. Financial stability and control are highly correlated.

There is a strong correlation between volume of control and social connectedness. Respondents with strong volume of control keep in touch with family and friends. In addition, seniors who are more socially active are more likely to feel they can control the decisions that affect their well being.

Financial control and social connectedness have a significant positive relationship. However, the relationship is only somewhat linear. Further analysis reveals that respondents who have low financial control and high social connectedness are African-American females with an income of \$20,000 or less. Respondents who have high financial control and low social connectedness are more likely to be Caucasian with an income of \$20,000 per year or more.

The ability to do physical activities is directly related to volume of control, financial control, social connectedness, and intensity of loss. The ability to overcome loss of physical abilities is directly related to volume of control.

Respondents who have lost some of their physical abilities are more likely to feel they don't have a high volume of control, are more likely to feel financially insecure, and are more likely to have weaker kin and social networks. It is difficult to ascertain whether the loss of ability to do physical activities contributed to the lower sense of control and weaker kin and social networks, or vice-versa. However, changes in one may very well lead to changes in the other.

There is also a strong relationship between loss of physical ability and intensity of loss. Seniors who feel that they have lost some of their ability to do physical things are more likely to think about the people they have lost much more often than those who have not lost any physical ability.

The ability to overcome physical problems is of great importance to the purposes of this study. Respondents who have a higher volume of control are much more likely to be able to overcome physical problems.

Chronic health problems have a great deal to do with persons requiring long term care. As with loss of physical ability, having chronic health problems is associated with a lower volume of control, lower sense of financial control, less social connectivity, and a higher intensity of loss.

The ability to continue daily activities in spite of chronic health problems makes the difference between requiring long term care and not requiring long term care. Respondents who have a strong sense of control are much more likely to be able to continue daily activities in spite of chronic health problems.

Being able to drive oneself has tremendous practical and symbolic value. What to do when one can no longer drive oneself is an important question that bears on both physical health and all of the control issues examined in this study. Indeed, being able to drive may be a surrogate for many of the themes the respondents were asked.

Respondents who can still drive themselves have a significantly higher volume of control index than those who cannot do so. The same holds true for ability to drive and both financial control and social connectedness.

Summary of Implications

The older an individual is, the more likely that individual is to feel that he or she has less control over their lives. But there is a large subgroup of older seniors who do not display the same pattern. Further analysis determined that members of this subgroup attend activities at church several times a day. The difference in volume of control between the group that attends church activities several times a week and those who hardly ever attend church activities is highly significant.

Seniors who have higher levels of education and income are more likely to have higher scores on the volume of control index. There are two exceptions to this, however. Seniors who have less than a high school education have higher scores than would be expected. There is also a large subgroup of seniors with lower levels of income who feel they have control over the decisions that affect their lives.

Females are more likely to feel socially connected than males and African-Americans are more likely to feel socially connected than Caucasians. Females are more likely to experience the intensity of personal loss than men. However, Caucasian widows experience far more intense loss than African-American widows. People with lower levels of education experience their personal losses more intensely than people with higher levels of education, and people with a lower income levels experience their losses more intensely than those with higher income levels.

Respondents who are of retirement age, have more than a high school education, and have household incomes of over \$12,000 a year are more likely to be able to overcome chronic health problems and continue their daily activities.

Sixty-five percent of the respondents still drive themselves. Of these, 67.2% said they would want someone they know to provide their transportation if they are no longer able to drive themselves.

The ability to do physical activities is directly related to volume of control, financial control, social connectedness, and intensity of loss. The ability to overcome loss of physical abilities is directly related to volume of control.

Respondents who have lost some of their physical abilities are more likely to feel they don't have a high volume of control, are more likely to feel financially insecure, and are more likely to have weaker kin and social networks. There is also a strong relationship between loss of physical ability and intensity of loss. Respondents who have a higher volume of control are much more likely to be able to overcome physical problems.

Having chronic health problems is associated with a lower volume of control, lower sense of financial control, less social connectivity, and a higher intensity of loss. The ability to continue daily activities in spite of chronic health problems makes the difference between requiring long term care and not requiring long term care. Respondents who have a strong sense of control are much more likely to be able to continue daily activities in spite of chronic health problems.

Being able to drive oneself has tremendous practical and symbolic value. Indeed, being able to drive may be a surrogate for many of the themes the respondents were asked.

It is abundantly clear from the findings of the study that the concepts of volume of control, financial control, social connectedness, feelings of loss, and driving oneself have a strong influence on the ability to overcome health problems and continue daily activities when one has a chronic health problem. The next steps in utilizing this information to prevent or delay entry into long term care or moving to a higher level of care is to understand the relationships more clearly and turn that understanding into action.

CONCLUSIONS

It is abundantly clear from the findings of the study that the concepts of volume of control, financial control, social connectedness, feelings of loss, and driving oneself have a strong influence on the ability to overcome health problems and continue daily activities when one has a chronic health problem. The next steps in utilizing this influence to prevent or delay entry into long term care or moving to a higher level of care is to understand the relationships more clearly and turn that understanding into action.

Pursuing the questions that have arisen from this project could have a significant impact on the delivery of long term care services. Among the most salient questions to be answered are:

1. Are there program changes that could be put into effect immediately that would begin the process of delaying or eliminating the movement of some seniors into long term care?
2. Would the same results found in this study occur for those who will soon move into this age group (the Baby Boomers)?
3. Can the implied finding of this study (that a low sense of control, less than desired social connectedness, and more than ordinary intensity of loss precede a reduced ability to overcome chronic health problems and maintain daily activities) be more directly connected to entry into long term care?
4. What differences are there between the sub-group of low-income, less well educated seniors who maintain a sense of control and the seniors in the same circumstances who do not do so?
5. In what ways can the social connectedness and a higher sense of control provided by frequent church attendance be translated for those who do not attend church?
6. Does the relative social isolation of men have an impact on their ability to overcome chronic health problems?
7. What specific interventions can be developed to make use of the knowledge gained to reduce the need for long term care?
8. In what ways can the symbolic nature of driving oneself be transferred to avoid reductions in a low sense of control and reductions in the other domains when one can no longer drive?

RECOMMENDATIONS

1. The findings of this study can be immediately applicable in modifying and reinforcing efforts in the State to ameliorate among seniors a sense of loss of control, social connectedness, and personal loss. *It is recommended that the organizations in state government that provide services in these areas coordinate their efforts with the efforts of private organizations to develop low-cost interventions that make use of the information from this study.*
2. Within the next few years, the Baby Boomer generation will be entering the senior population. This generation may or may not experience the domains in this study in the same ways that present day seniors do. They therefore may or may not be amenable to the same interventions to modify their long term care experiences. *It is therefore recommended that a project be designed and carried out that will explore and describe the Baby Boomers' likely responses to the experiences represented in the present study's domains.*
3. The finding in the study that suggests a sub-population has somehow been "inoculated" against some of the effects of loss is tantalizing. This group may hold clues of ways in which others can be "inoculated." *It is therefore recommended that this group be more closely studied to determine what the factors are that "inoculate" them and whether these factors can be incorporated as interventions into the experience of other people.*
4. Men do not have the same degree of social connectedness that women have, according to the findings of the study. This may explain in part the younger age at which men appear to develop serious health problems which may lead to the need for long term care. *It is therefore recommended that additional study be conducted on the social connectedness of older men, how that relates to health issues and methods for modifying their social connectedness.*
5. There is a great deal of information that may be gleaned from the data generated in the study. The time and resources necessary to do so were not available. *It is recommended that a list of additional potential questions be developed and secondary analysis of the data from the study be carried out.*
6. It would be helpful if the implied finding of this study that a low sense of control, less than desired social connectedness, and more than ordinary intensity of loss precede a reduced ability to overcome chronic health problems and maintain daily activities be more directly connected to entry into long term care. *It is therefore recommended that a study be designed and carried out that would use a panel study or retrospective study methodology to make a more definitive finding of causality.*
7. For many people, church activities may make a major difference in their potential use of long term care services. *It is therefore recommended that the work presently being done at the College of Social Work on the relationship between the faith community and seniors remaining in their homes continue to be supported. It is further recommended that a study*

of how to provide similar support for those who are not members of a faith community be developed and carried out.

8. The symbolic as well as practical meaning of driving oneself appears to be significant in the life of seniors and their potential entry into long term care. *It is therefore recommended that programs that provide a replacement system of transportation with the same symbolic value be identified and tested in the State. It is further recommend that additional work be done on the symbolic meaning of driving oneself to help guide the development of such a system.*

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**APPENDIX ONE:
LETTER OF INTRODUCTION AND
INTERVIEW SCHEDULE**

**APPENDIX TWO:
CODING CRITERIA**

**APPENDIX THREE:
SURVEY INSTRUMENT**

**APPENDIX FOUR:
SURVEY COVER LETTER**

**APPENDIX FIVE:
LIST OF PLACES RESPONDENTS GO
TO BE WITH OTHER PEOPLE**