

**HOUSING AND THE ELDERLY:
MAKING THE TECHNOLOGICAL TRANSITION**

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I. INTRODUCTION

This paper will examine selected characteristics pertaining to the housing of the 'frail' elderly population in New Brunswick. The data are taken from a survey on a provincial random sample of frail elderly living in the community during the months of May to October, 1987. The term 'frail' refers to those elders 65 years of age or older, who are dependent on others to assist them with one of their basic needs (eg., feeding, bathing, dressing, walking, and transportation). The responses cover topics pertaining to elders' functioning levels, perceived health status, life satisfaction and other descriptive characteristics. Specific attention is focused on issues related to housing and living arrangements of elders living in publicly subsidized housing, private apartments and private homes. The implications drawn from these findings stress the impact of the residential environment on the well-being of elders and their informal caregivers.

1.1 Demographic Background

In 1986, New Brunswick's total population was 710,422, of which 11.1% or 78,740 individuals were aged 65 and over (Statistics Canada, 1987). The number of individuals aged 65 and over has been increasing over the years and will continue to do so. From 1976 to 2006, individuals over the age of 65 will have increased as a proportion of the total population from 9% to 13.1%. More specifically, during 1991

to 2001, the total population of individuals 65+ will increase by almost 8,000. The number of individuals 65 to 74 will decrease by over 2,000 while the number of individuals over the age of 85 is expected to increase by almost 60%, from 8.7 thousand to 13.6 thousand (Statistics Canada, 1987).

In the past, health care practice has tended to focus on individuals age 65 and over; however, the bulk of services are actually required by individuals who are 15-20 years older (ie., individuals over the ages of 80-85). In fact, Canada is a leader in terms of the growth of seniors aged 80 and over (Canada Seniors, 1988). Demographic data indicate that the aged population is increasing and will be more and more composed of elderly, frail females. Women in the 80+ age bracket currently outnumber men by more than two to one (Canada Seniors, 1988). In terms of marital status, the majority of males are married (76%) and the majority of females are single (60%) and tend to live alone (Statistics Canada, 1984). In 1981, the number of women over the age of 65 living alone was over three times that of males living alone (1984). Predictive statistics suggest that older men will continue to be married and cared for by their spouse or family in their own home. In marked contrast, women who are widowed or never married will increasingly live alone and will require community services and long-term residential care (Health and Welfare Canada, 1988).

If the trends depicting these unique characteristics of the elderly population are accurate, this 85+ subgroup of elderly in New Brunswick may become particularly vulnerable to issues regarding the availability and effectiveness of services designed to maintain independence as long as possible.

1.2 Housing Characteristics

The National Seniors Housing Consultation has expressed the major concerns of seniors related to housing issues. In summary, seniors want to be actively involved in choosing and planning housing programs that are accessible, adaptable, affordable, and sensitive to quality of life issues. Also, elders are looking for programs or alternative ways that allow them to maintain their independence in the community as long as possible. From this report representing the voice of seniors across Canada, it is obvious that housing has come to mean more than the mere physical structure itself.

More specifically, housing is an issue of major concern to the elderly in New Brunswick for various reasons. The majority of elderly in New Brunswick live in private homes (93% male/90% female). This holds even for the majority in the 85+ age bracket (71% male/59% female). The equity built up in a private dwelling is the major source of wealth for the elderly accounting for almost half of the homeowners

/assets (Frazer, 1982). For some, the private home is what has shaped and continues to shape their identity.

The physical maintenance of a private home is a major concern for the elderly, especially those living in rural areas. It has been reported that seniors living in rural areas are more likely to live in substandard housing compared to nonseniors (Corbett, 1990).

For those living in urban areas in 1982, 27% of the renters in New Brunswick were elderly individuals who were experiencing problems with crowding, inadequacy and affordability of housing (Housing in New Brunswick, 1985).

For these reasons, the interaction between the elder and his/her housing environment has now become a major focus in the literature on housing for the elderly.

Gerontologists have attempted to offer theoretical explanations as to why and how the residential environment has affected elders well-being. The next section of this paper will elaborate on the current theories and research being done in this area.

1.3 Current Research on Housing

Aging is a complex and varied experience, influenced by the physical and social environment as well as the personal characteristics of the individual. Several aspects of the physical and social environment are linked to the quality of life of older people, as reflected in their subjective feelings of well-being. A number of studies indicate that

the type of housing and the nature of living arrangements make significant contributions to global satisfaction (Christenson & Carp, 1987; Schooler, 1970; Smith & Lipman, 1972, Teaff et al., 1978; Wolk & Telleen, 1976; Jirovec et al., 1984; Duffy & Willson, 1985).

Gerontologists have shown particular interest in whether elders morale and life satisfaction is influenced by the quality of the residential environment as measured by structural and subjective indicators (Golant, 1984). Studies have documented a relationship between specific structural housing characteristics and residential satisfaction. Within this branch of research, size and modernness of the housing unit, the presence of central heating, lighting, ventilation etc. have emerged as central determinants of housing satisfaction among urban elderly (Lawton et al., 1978; Lawton et al., 1975). Subjective dimensions of housing satisfaction include perceived safety, ambience, aesthetic appeal, and the attachment elders have to their homes, especially for elderly homeowners compared to renters (O'Bryant & Wolf, 1983).

Research reveals that the fit between the individual and the environment may be even more critical to the social and mental health of the elderly than the younger population. In old age, the occupied residential dwelling represent an especially salient and positively valued component of an individuals everyday environment (Golant,

1982). Older adults may be especially sensitive to environmental characteristics of their residential milieus due to reduced coping resources (Christenson & Carp, 1987), and restricted mobility resulting in shrinking life space (Birren, 1969). Because of this heightened vulnerability, the elderly represent a pertinent target population for studying vital linkages between objective and perceived residential quality.

The unique environment-behavior relationship for the elderly is complex however, and environmental satisfaction is not simply a function of the features of the external environment (Kahana, 1982; Golant, 1984). Rather, the psychological and physical state of the person experiencing these features is expected to be critical. Environmental satisfaction results from a complicated process involving ecological, biological, psychological and social components. With respect to the social component, Lawton has demonstrated the importance of the interpersonal milieu in which the elderly individual is embedded. This interpersonal environment is made up of social networks that make up the basic affective and instrumental ties between person and society (Ward et al., 1988). Corresponding research has revealed that residential satisfaction is largely a function of macro environmental conditions (i.e., importance of the neighbourhood) as opposed to the micro

environmental conditions such as housing arrangement (Jirovec, Jirovec & Bosse, 1984).

According to Lawton's ecological model of the environment and aging, aging occurs in the context of this human ecosystem comprised of the interpersonal, social and suprapersonal environment. The social environment consists of norms and values operating in the individual subgroup, society or culture. The suprapersonal environment refers to the population characteristics of a residential area, the geography of the larger local community. Each component of this ecosystem relates to the issues of quality of life or subjective well-being (Altman, Lawton, & Wohlwill, 1984; Lawton, 1986; Lawton & Nahemow, 1973; Ward et al., 1988). In an attempt to explain the link between the residential environment and psychological well-being, Lawton has suggested three functions of the residential environment that enhance well-being: stimulation, maintenance and support. While these functions characterize the use of the residential environment by all people, they are especially relevant to elders because biological and social aging may cause redefinitions of personal needs and corresponding realignments of the transactions between person and environment (Lawton, 1989). The usefulness of this model lies in the ability to conceptualize the dynamic relationship between individual competence, which is often declining in the elderly, and the kind of environment (ie.

housing conditions) needed to optimize functioning. With this in mind, the present paper will discuss findings describing selected characteristics pertaining to the housing conditions of a random sample of frail elderly in New Brunswick. These findings will be compiled to develop comprehensive profiles of older persons living within specific housing situations in the community (eg., private home, subsidized apartment etc.). Such analyses will provide a much needed basis for forecasting and providing future housing needs among the growing cohort of elderly individuals (Foot, 1982).

1.4 Research Objectives

Apart from the descriptive information previously outlined, little is known about the overall housing situation of the aged in New Brunswick. More information is needed to examine the relationships between characteristics such as specific housing arrangements, with income, housing repair, living arrangements, the use of informal and formal care services, the health status, functional level, and quality of life of elderly individuals.

This paper will examine housing data as well as additional subjective characteristics of a random sample of elderly and their caregivers in New Brunswick. The research objectives have been outlined as follows:

- (1) To present a profile of the actual housing and living

arrangements of this random sample of frail elderly in New Brunswick;

- (2) To examine the relationships between housing and living arrangements with selected characteristics of the elderly and their caregivers;
- (3) To assess whether different environmental conditions exist for specific elderly subpopulations.

II. METHOD

2.1 Sample

This research was carried out in the province of New Brunswick. The study sample was drawn from the New Brunswick Medicare Registry which contains the vital statistics of all the people in the province. According to Statistics Canada (1981) there were 70,460 people in New Brunswick 65 years of age and older.

A random sample of 3,000 persons was drawn systematically from the medicare files (65 years of age or older as of January 1, 1987).

A screening instrument, in letter form, outlining the nature of the project and containing eligibility criteria was forwarded to the study population. The elders were asked to determine their interest in participating in the project through a prestamped, self-addressed response instrument. Following interviews with 20 elders and 15

caregivers, minor adjustments were made to the elder and caregiver self screening instruments.

Of the three thousand elders to whom the self-screening instrument was mailed, 461 or 16.2% responded. This is an encouraging response from the elderly community considering their restricted functioning. Thirty-two of the respondents were disqualified as they were living in a non-community setting (eg., nursing home, special care home, hospital). Only 11 of the elders refused to participate in the study, while 123 of the study population could not be located because they had moved to an unknown address. Thirty-two members of the study population were deceased. Of the elders agreeing to participate in the study, 99 or 26% were not frail and did not qualify. This is not to suggest they were without problems. Rather, they were functioning independent of formal and informal care. None of the elders refused to specify his/her primary caregiver, and all of the caregivers agreed to be interviewed.

Demographic data indicated that the patterns in this random sample were congruent with comparisons made with national data on the elderly population. Descriptive information was consistent with other statistics, both provincial and national. Thus, there appeared to be no obvious bias in the sample. One difference was worth noting however. The sample contained more married couples than

those reported by Statistics Canada. A possible explanation could include the fact that the elderly have failed to report changes in marital status.

2.2 Instrumentation

Three types of variables were selected for analyses in this study: 1) socio-demographic respondent characteristics; 2) subjective indicators of well-being and social support; and 3) objective indicators of housing and living arrangements.

2.3 Demographic Characteristics

The demographic characteristics included in this analyses were age, sex, marital status, location of home (urban, rural), language, housing and living arrangement. Measures of socio-economic status included education, income, and employment status.

2.4 Subjective Indicators

Following is a description of the instruments that were included in the survey to measure the subjective information regarding the social networks and the overall well-being of the elderly sample.

2.5 Functional Level

The Katz Index of Activities of Daily Living (ADL) and the Instrumental Activities of Daily Living (IADL) are the best known and most carefully structured tests of functioning levels (Kane & Kane, 1981). For the ADL, an elder is considered dependent on the following six

functions: transfer/walking, dressing, bathing, toileting, eating/feeding, and incontinence. The IADL measured functioning as follows: transportation, housework, laundry, medications, shopping, meal preparation, money management, and telephoning.

2.6 Perceived Health Status

For the purpose of this study, the General Subjective Self-Health Ratings instrument was used to test the health status of the elderly respondents. Respondents were asked to rate their overall health at the time of the interview as well as to rate his/her health relative to other people of the same age. Finally, they were asked to indicate what health problems bother them most.

2.7 Life Satisfaction

General psychological well-being and morale were assessed by applying the eighteen-item Life Satisfaction Index (LSI). This particular version was developed by Wood, Wylie, and Sheafor (1969). This instrument has been tested for both reliability and validity in both rural and urban environments (Adams, 1969). Cronbach alphas between .74 and .84 were reported for the LSI by Himmelfarb and Murrell (1983). The scoring system consists of applying two points for each affirmative response and one point for each uncertain response. Negative responses are given a zero score.

2.8 Memory and Orientation

The Short Portable Mental Status Questionnaire (SPMSQ) (Duke University, 1978) was used to test the elder's memory and orientation. It is part of the larger Older Americans Research and Service Center Instrument (OARS), a multi-dimensional structured tool for community-based assessments. The SPMSQ consists of ten questions that examine the elder's remote memory, practical survival skills, and mathematical ability. The test is scored by applying one point for a correct response and zero for an incorrect reply. Some minor revisions to this instrument were necessary to make the instrument applicable to the New Brunswick environment (eg., the question relating to the President of the United States was changed to read the Prime Minister of Canada).

2.9 Social Support

Two methods were used to measure social support in this study. The network dimensions included nine network characteristics, four morphological and five interactional characteristics which were examined individually and collectively to determine their effects on informal care. These were developed by Mitchell and McKinley (1979) to describe the informal caregiving process.

The second method of measurement used was a scale developed by Lubben (1984). The Lubben measure arose out of a study of assessment tools in a large multi-purpose seniors' service project in California. It was tailored for

a frail population. The social network in this scale was composed of an equally weighted sum of eight aspects of social networks. These were 1) marital status, 2) living arrangements, 3) number of peers seen at least monthly, 4) number of children and distant relatives seen at least monthly, 5) frequency of social contact, 6) nature of any confidant relationships, 7) number of people to whom the elder feels close, and 8) whether the respondent is relied on by others for help of any kind. The Lubben measure is continuous and ranges from 0 to 8. Higher scores imply greater social connection. The Cronbach alpha is satisfactory at .72.

Housing arrangements consisted of both housing conditions and arrangements as well as information concerning the co-residents of the respondents. The objective variables examined were housing arrangement: (1) publicly subsidized housing, (2) private apartment, and (3) private home owners; living arrangement: (1) alone, (2) with someone else; and housing conditions: (1) need for repairs over past six months, and (2) the ability to make repairs if needed.

III. PROCEDURE

Elders and their caregivers were interviewed in their own homes using face-to-face data collection instruments. Interviews with the elders' caregivers were conducted face-to-face and by

telephone. The elders' and the caregivers' survey instruments were tested formally and informally. Informal evaluation consisted of applying the instrument to several accessible frail and non-frail elders. In addition, the questionnaires were reviewed by a panel of professionals engaged in the gerontology field. Finally, the instruments and information collected were subjected to a formal examination through a sampling of the total study population.

IV. DATA COLLECTION

Data were collected from May through October 1987. Two separate and distinct instruments were developed in gathering the demographic and social network data from the elders and their primary caregivers. The interview schedules appear in Appendix A and B. The interviews varied from one to two and one half hours in length, the average time being one hour and forty minutes. The caregiver interviews required less time and were completed in about one hour. Three interviewers were employed to assist the principal researcher in the project. All had professional degrees and were experienced in working with the elderly. The surveying activities were divided geographically and according to the language preference of the elder.

V. ANALYTIC TECHNIQUES

Several forms of statistical analyses were used in presenting the results. Simple bivariate relationships were analyzed through the use of contingency tables, correlation coefficients, and analysis of variance. The Statistical Package for the Social Sciences (SPSSX) was utilized to perform the appropriate statistical procedures.

Analyses reported generally utilized all available data for all respondents. Subgroups analysis represent some reduction in sample size for specific analysis. Therefore, sample sizes are noted in the relevant Figures. It should be noted that extensive subgroup analysis in a large sample runs the risk of uncovering random variation in patterns of associations. Such analyses should be viewed as exploratory.

VI. RESULTS

6.1 Socio-Demographic Profile

The socio-demographic profile of the study population (N=3000) is equated with that of the general population of New Brunswick (see Figures 1, 2, and 3). While the sample yielded a higher percentage of married couples than that recorded by Statistics Canada for New Brunswick, the age and gender distribution are statistically similar.

The mean age of the elder participants was 79.6 years of which 63.6% were females (see Figure 4). Sixty-five of the respondents were over the age of 75 years while 20.3%

were 85 years of age or older. Three of those interviewed were 100 years or older. Of those interviewed, 44.9% (n=285) were married and 39.6% were widowed. Of those widowed 40.6% were female (see Figure 5).

Most elders in the study were dependent on Old Age Security and the Guaranteed Income Supplement as their primary source of income. Fifty-five percent of the study population were receiving nearly \$7,000 a year, considerably below the standard poverty level for Canadians. Less than 10% of the elders had incomes in excess of \$15,000 per year (see Figure 6).

6.2 Profile of Housing and Living Arrangements

A profile of housing and living arrangements was created based on survey data drawn from the random sample of 285 elderly and their caregivers in New Brunswick. The housing profile is summarized in Figures 7 to 10.

The majority of elderly (61.9%) lived in private homes and had lived in their homes for an average of thirty years. Thus, this study reflected a high home ownership by elders in New Brunswick. The second largest housing group included the elderly living in subsidized housing at 13.4%. The third largest housing group included those living in private apartments (11.6%). Perhaps more elderly in New Brunswick than any other province in Canada own their own home. A more equitable distribution of the elder population living

in rural areas is the probable cause of this characteristic (Hickey, 1987).

The study also revealed the high number of properties that required maintenance and the inability of the elders to complete the necessary repairs to their home. Fifty-three percent stated their home required repairs in the past six months.

Ninety-four percent felt they were unable to make any minor repairs to their homes. Ninety-four percent in need of repairs were reported by private homeowners whereas elderly in the subsidized and private apartments reported three percent and two percent respectively (see Figure 8). Contrary to expectations, those with lower incomes reported less problems with household maintenance (see Figure 9). This could be explained by the fact that higher income elderly are more likely to own their own homes.

The surprising number of elders with self-owned homes in rural areas provoked considerable concern for deficiencies in housing services (see Figure 10).

Elders were not knowledgeable about housing services or how to access existing services. Although most elders were sensitive to and anxious about maintaining the quality of their home, few were conscious of the barriers imposed by the physical design features of their homes. Other than the assistive devices present in subsidized apartments, most homes were not equipped with supportive features such as

handrails or ramps in critical areas such as the toilet, bathtub and bedroom. In fact, many homes were hostile to the elders attempts to remain self sufficient.

The percentage distributions of living arrangement and conditions are displayed in Figures 11 and 12 respectively. The majority of elderly in this sample are living with someone else (66.2%) compared to the 33.8% living alone. Of those who live with someone else, the majority 40.4% live with their spouse while approximately 13.7% reside with their children. Regarding co-residents, 25.8% were found living in households with persons other than a spouse.

With respect to length of occupancy, the average number of years in a permanent residence is 30.5 years. In terms of those having to change residences within the last year, 10 subjects made voluntary moves and 5 were forced to move. Inadequate follow-up information exists to determine the housing location of the recent moves. Further research is needed to track the housing choice and mobility patterns of healthy elderly as they get older.

6.3 Profile of the Relationship Between Housing Arrangement and Respondent Characteristics

Housing variables were examined in further detail in the following analyses to determine group differences. An attempt was made to describe the distinguishing characteristics of the elderly residing in the following housing arrangements: publicly subsidized housing, private apartments and private homes.

6.3.1 Publicly Subsidized Housing

The results of this study suggest that the elders living in publicly subsidized housing are more likely to be female, widowed, poorer, in need of less household repairs, receive more homemaker services and live alone in urban areas. Figure 13 demonstrates the significant relationship between housing and living arrangements controlling for income. Findings indicate that housing and living arrangements differ significantly by income such that low income elderly (less than \$10,000) are more likely to live alone than with someone else in publicly subsidized housing. No significant difference was obtained between housing arrangement and living arrangement in the higher income bracket.

Further analyses were conducted to determine whether this significant relationship was maintained between housing arrangement and living arrangement after controlling for age (see Figure 14).

The results indicated that elders in publicly subsidized housing were significantly more likely to live alone than live with someone else in all three age groups, especially in the 85+ age bracket. Thus, more elderly in publicly subsidized housing are living alone even when age and income are statistically controlled.

In terms of location, the percentage distribution in Figure 8 demonstrates a significant relationship between housing arrangement and location such that there was more publicly subsidized housing in urban centres (20.2%) as opposed to 2.7% in rural areas. No significant relationship was found between housing arrangement and language. In terms of gender differences, the percentage distribution in Figure 15 shows more females than males living in the publicly subsidized housing.

Figure 16 displays the distribution of marital status by housing arrangement. Elderly in private homes were significantly more likely to be married. In contrast, the elderly in private and subsidized apartments were more likely to be either divorced, never married, or widowed.

As Figure 8 illustrates, the relationship between housing arrangement and housing conditions was significant. Fewer elders (23.6%) reported the need for repairs in the publicly subsidized housing as opposed to the 93.3% needing repairs in private homes.

6.3.2 Private Apartment

Within the data base of the current study, the profile for elderly in private apartments was similar to the profile for the publicly subsidized housing in that the private apartment residents were more likely

to be female, to be widowed in the 65-84 age group, to need less household repairs, and to live alone in an urban environment.

The differences between private apartment and subsidized housing were illustrated in Figure 16. Elders in private apartments were more likely to live alone in the 65-84 age groups similar to the subsidized seniors. However, the major difference occurs for seniors 85 and over who were more likely to live with someone than live alone in private apartments. This is in contrast with the finding that seniors in subsidized housing were more likely to live alone. In addition, data from the caregiver survey suggests that a greater percentage of caregivers for seniors in private apartments were considering nursing home placement at the time of the survey (see Figure 17). To more fully understand this difference, a one-way ANOVA was performed to determine the relationship between elders housing arrangement and indicators of well-being. In this analysis, the private apartment category was broadened to include elders living in a room in the house of a relative, separate quarters attached to the house of a relative, and in a boarding or rooming house. Table 1 demonstrates a statistically significant group difference ($F=4.62$, $p<.01$) when the IADL was used as the indicator of functional level.

According to this analysis, elders living in private apartments were more frail than those living in subsidized housing or private homes. Thus, it may be that this subpopulation of elders 85 and over are at risk due to their advanced age and limited functioning level.

6.3.3 Private Homes

Elderly living in private homes, according to this sample, were likely to be male, married, living with a spouse or children, have a higher income (+\$10,000), and reside in a rural environment. In addition, the elderly in private homes reported a greater need for household repairs in the past six months (see Figure 10).

Further analyses were conducted using a one-way ANOVA to determine the relationship between housing arrangement, income and years lived at a permanent address. As expected, Table 2 shows a statistically significant difference between groups in that elders in private homes lived on average 30 years at the same address compared to the average of 9 years in the publicly subsidized and private apartments ($F=41.16$; $p<.001$). Table 3 shows that the groups were statistically significant $F=11.27$, $p<.001$. Elders in private homes have higher incomes (+\$10,000) as

compared to the publicly subsidized and private apartment tenants.

VII. SUMMARY, ISSUES AND CONCLUSIONS

7.1 Profile Overview

The respondent characteristics of age, marital status, gender, income, housing conditions and living arrangements all emerge as key variables associated with housing arrangements. Overall, elders in private homes are more likely to be married, to have lived in their current residence for a longer duration and to have a higher income than those in private apartments or subsidized housing. Elders in subsidized housing tend to live alone. As age increases, the likelihood of living alone in a subsidized housing arrangement increases whereas those in private apartments or homes are more apt to live with someone else as they get older. Surprisingly, it is not the elders over 85 who live alone in the subsidized housing that are the most frail. Rather, it is the over 85 elders living with others in the private apartment that report poor functional levels in terms of the instrumental activities of daily living. This research identifies 85+ elders living in private apartments as a potentially vulnerable subgroup that has received little attention in the current literature on housing and the elderly. Further research is needed to investigate the needs of this specific subgroup of elders

residing in private apartments in New Brunswick communities.

7.2 Future Directions

The results of this study suggest a need to focus on two major areas involved in the subsequent planning, design or implementation of housing programs for seniors in New Brunswick. The first area centers around the 85+ age group of elderly living with others in private apartments. This group has been described as lower functioning in terms of the instrumental activities of daily living than elders living in private homes or subsidized housing. The data appear to dispel the common misconception that elderly living alone are the most frail. Because of this decreased functioning level, this particular subgroup of elderly individuals may be exhausting the informal care networks available to them (eg., spouse or other family members living in the same home). This, in turn, could place increasing demands on the formal care system. For example, the results of this study demonstrated a greater number of caregivers considering nursing home placement for elders in the private apartments. Further research is needed to discover more specific characteristics of the elders residing in private apartments, boarding homes and in rooms with relatives. Even though the number of elders in this type of housing arrangement may be smaller than the number of private homeowners in the province, the overall burden

placed on the caregiving systems by this subgroup may be very significant.

The second major issue addressed in this study involves the conflict experienced by the majority of elders in New Brunswick who are private homeowners living in rural areas. As this study indicates, most private homeowners have been residing in their homes for an average of thirty years. During this time, the meaning of "home" has been enhanced to include the surrounding neighbors and become the center for security, activities and relationships (Danermark & Ekstrom, 1990). In addition, the home is likely to be the major financial resource for elders. Despite these attachments, the private homeowner is often faced with the responsibility of household maintenance. Once the senior reaches the 85+ age bracket, these demands for repair become increasingly difficult.

A critical- and often overlooked- issue concerning the residential environment and the well-being of elders is the technological advances available to compensate for the increased frailty existing within target subgroups of elderly. Such advances have the potential to produce positive consequences in the lives of seniors and their caregivers. These technological advances could provide a reduction of physical demands associated with tasks, facilitation of communication, compensation for infirmities, additional linkage to the outside world, and

increased safety (Czaja & Barr, 1989). Some specific inexpensive devices that provide assistance include can openers that can be managed by arthritic hands, grab bars in bathrooms, lighted treads on stairs, slip-proof bathtubs among many others. More elaborate devices such as computer technology and telecommunication devices designed to activate security systems are now being used by elders in their own homes. These devices provide elders with options for recreation, to continue education, and to enhance their ability to live safely in their own homes.

Elders limited use of supportive devices is reason for concern. Elders are either not aware of such technologies or are not convinced of their usefulness to them. Assistive technologies are available to aid walking, hearing and vision. In the near future, these technologies will include programmable wheelchairs, voice-activated computer control centers, and robots that aid in the performance of tasks such as meal preparation (Czaja & Barr, 1989).

In summary, the increased demands on both the informal and formal care system could be reduced by 1) an increased awareness of what technological advances exist for the elderly; and 2) an increase in accessibility of these devices, especially within the target 85+ age bracket. Before this can be accomplished, further research is needed to identify and test the effectiveness of specific technological innovations designed to improve the quality of

life of the elderly and decrease caregiver burden in the vulnerable subpopulations of elderly individuals.

7.3 Conclusions

The survey results provide an overview of the respondent characteristics associated with the current housing and living arrangements of seniors in New Brunswick. From this research, it is possible to identify specific subgroups of elderly individuals who are more vulnerable to the negative effects of aging due to their current housing and living conditions. As our population ages, the housing needs of the elderly will continue to expand both absolutely and relative to the rest of the population. It is of basic importance that we recognize that the identification of elders characteristics is the first step in developing housing alternatives.

The older population differs in many ways from the younger population. Furthermore, elders differ widely in themselves. They do not constitute a simple subpopulation that can serve as a basis for housing services. Nevertheless, some general trends of changes in functioning ability with increasing frailty are apparent. Changes in physical agility and flexibility, visual, audio functioning and cognition call to the development of technological interventions that can enhance rather than inhibit elders functioning. Further research is required to identify ways of making information on housing rehabilitation programs as

well as design technologies available to elders and their caregivers. Exterior and interior enhancements are likely to compensate for the losses experienced by elders and help improve their quality of life. The environment plays a major role in determining the number of activities an elder will be able to complete independently. Maximizing the environments ability to support elders remaining abilities to carry out their daily activities while augmenting their well-being is the challenge for us.

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TABLES

Table 1

**ANALYSIS OF VARIANCE OF ELDERS' HOUSING ARRANGEMENT AND
INSTRUMENTAL ACTIVITIES OF DAILY LIVING (N=279)**

Group	Count	Mean	Standard Deviation	Standard Error
Publicly Subsidized Housing	38	24.86	8.10	1.31
Private Apartment	65	28.23	9.69	1.20
Private Home	176	24.03	9.71	.73
Total	279	25.12	9.63	.57

F Ratio 4.62
F Prob .01

Table 2

**ANALYSIS OF VARIANCE OF ELDERS' HOUSING ARRANGEMENT AND YEARS IN
PERMANENT RESIDENCE (N=279)**

Group	Count	Mean	Standard Deviation	Standard Error
Publicly Subsidized Housing	38	9.05	10.42	1.69
Private Apartment	65	9.04	13.09	1.62
Private Home	176	30.35	21.89	1.65
Total	279	22.48	21.48	1.28

F Ratio 41.16
F Prob .001

Table 3

ANALYSIS OF VARIANCE OF ELDERS' HOUSING ARRANGEMENT AND INCOME
(N=279)

Group	Count	Mean	Standard Deviation	Standard Error
Publicly Subsidized Housing	38	.39	.49	.08
Private Apartment	65	.38	.49	.06
Private Home	176	.67	.47	.03
Total	279	.57	.49	.03

F Ratio 11.27
F Prob .001

FIGURES

Figure 1

AGE DISTRIBUTION OF STUDY POPULATION
(N=3,000) EQUATED WITH THE TOTAL 65+
POPULATION IN NB (70,460)

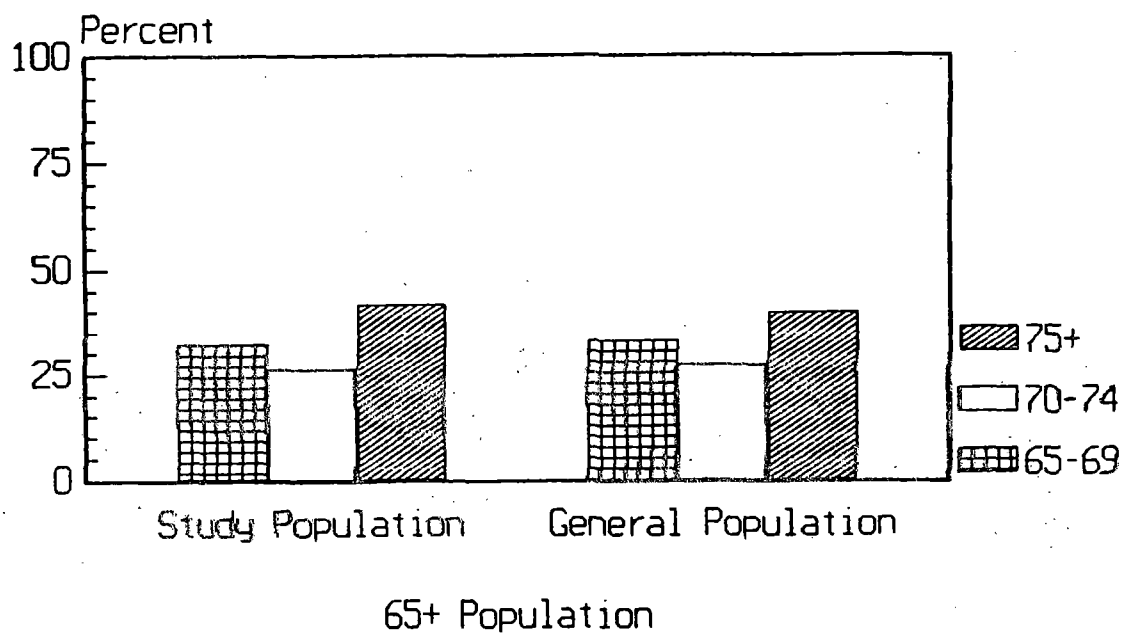


Figure 2

GENDER DISTRIBUTION OF STUDY
POPULATION (N=3,000) EQUATED WITH TOTAL
POPULATION IN NB (70,460)

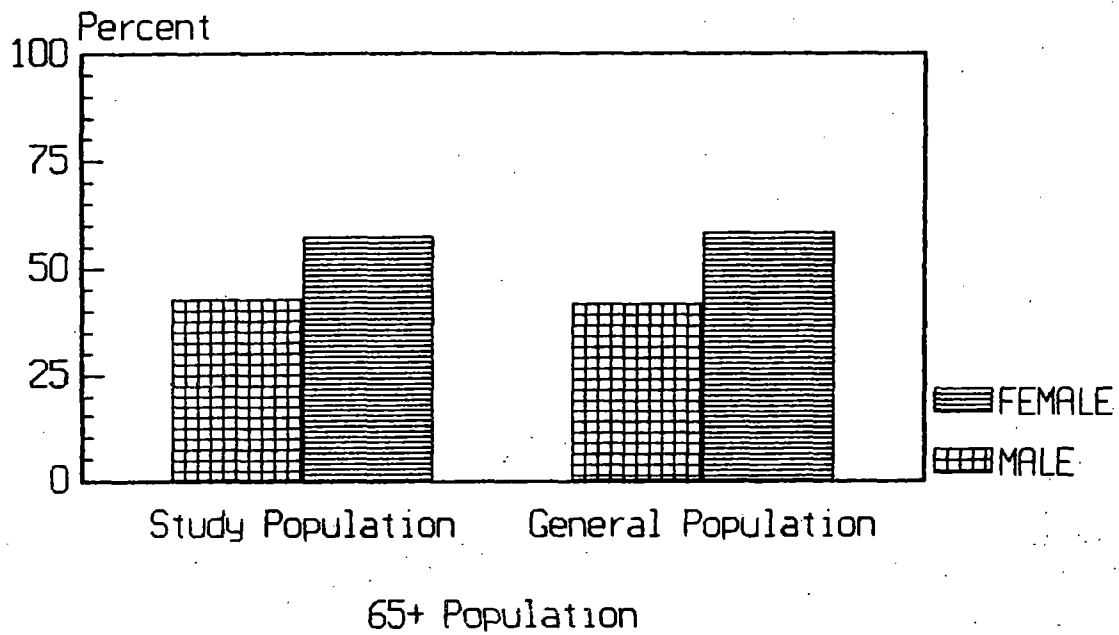


Figure 3

MARITAL STATUS OF STUDY
POPULATION (N=3,000) EQUATED WITH TOTAL
POPULATION IN NB (70,460)

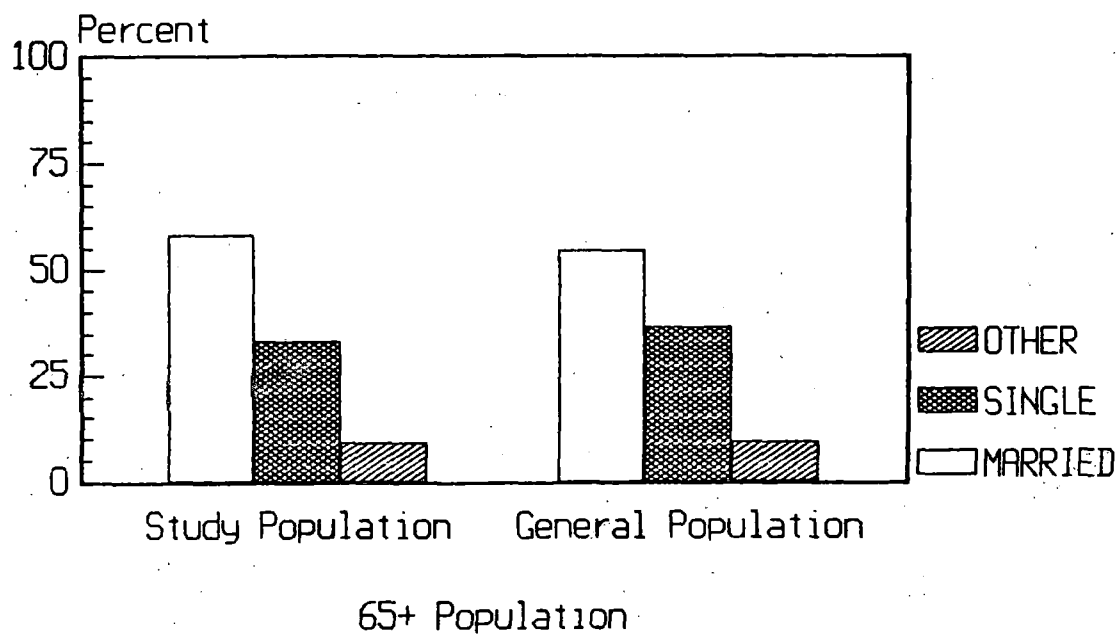


Figure 4

GENDER DISTRIBUTION OF STUDY SAMPLE
(N=285)

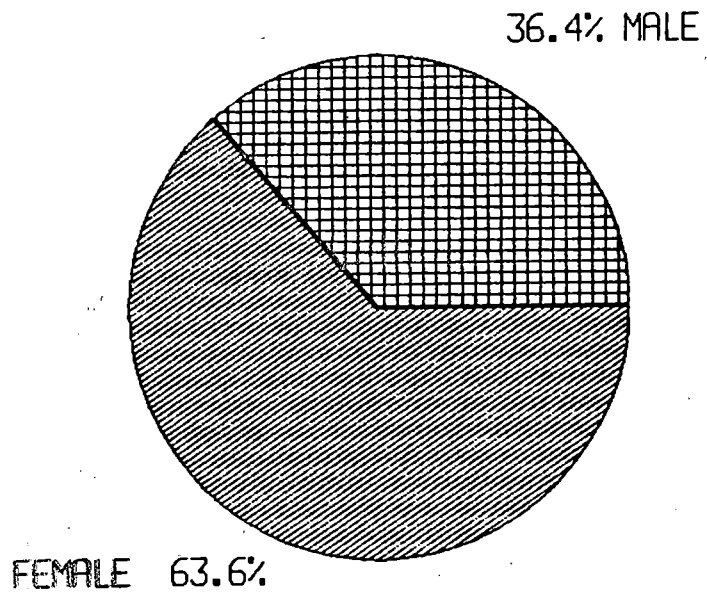


Figure 5

PROPORTION OF STUDY SAMPLE BY MARITAL STATUS (N=285)

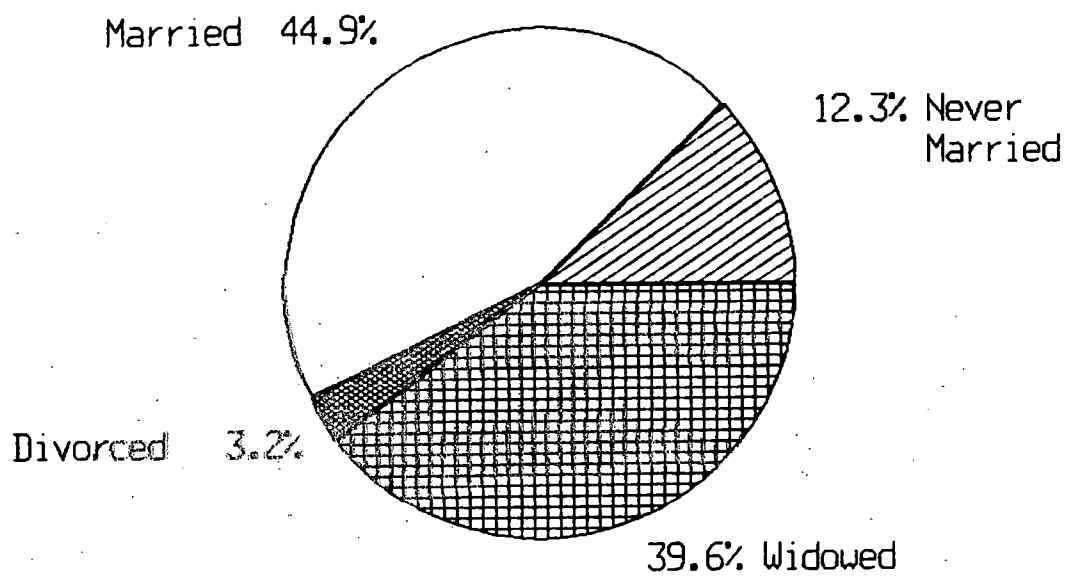


Figure 6

INCOME DISTRIBUTION OF STUDY SAMPLE
(N=285)

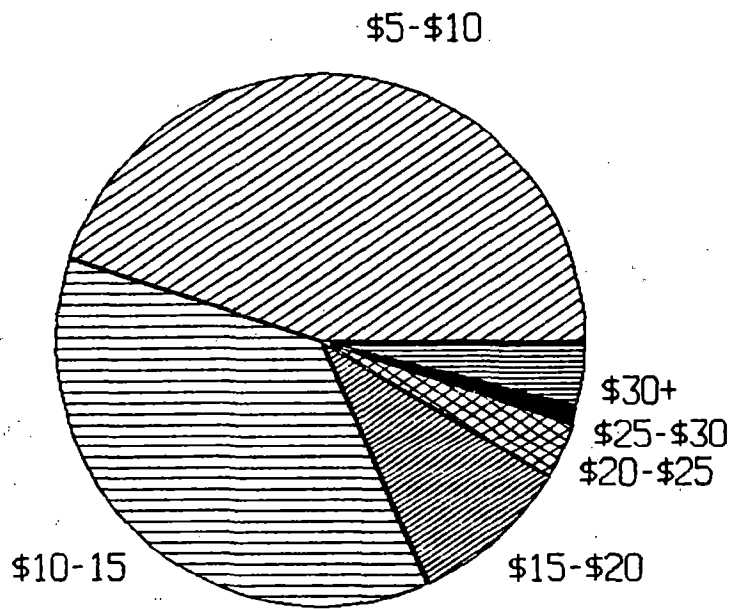


Figure 7

HOUSING ARRANGEMENT OF STUDY SAMPLE
(N=285)

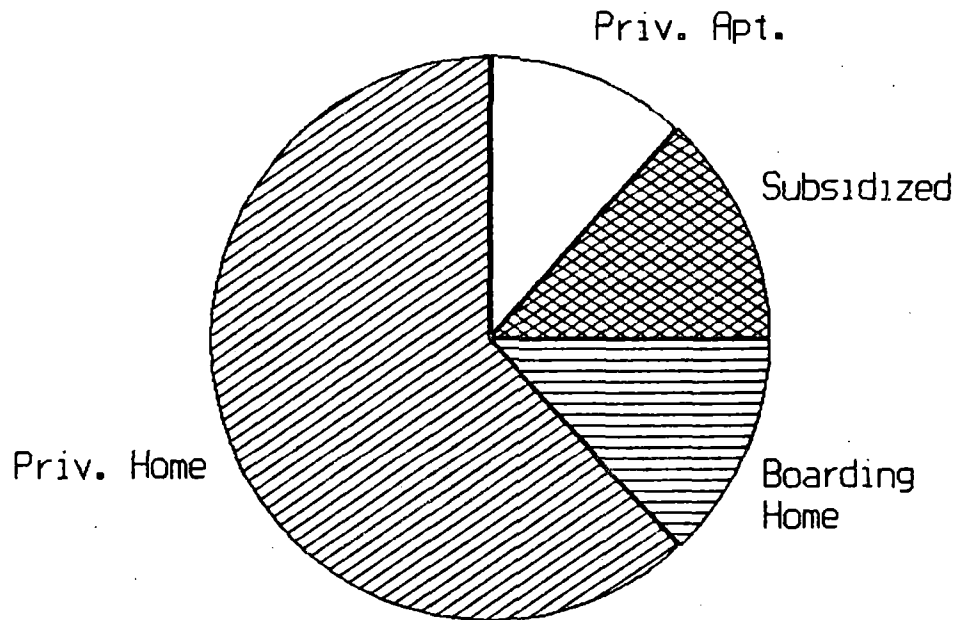


Figure 8

PERCENTAGE DISTRIBUTION OF ELDERS'
HOUSING ARRANGEMENTS IN NEED OF REPAIR
(N=230)

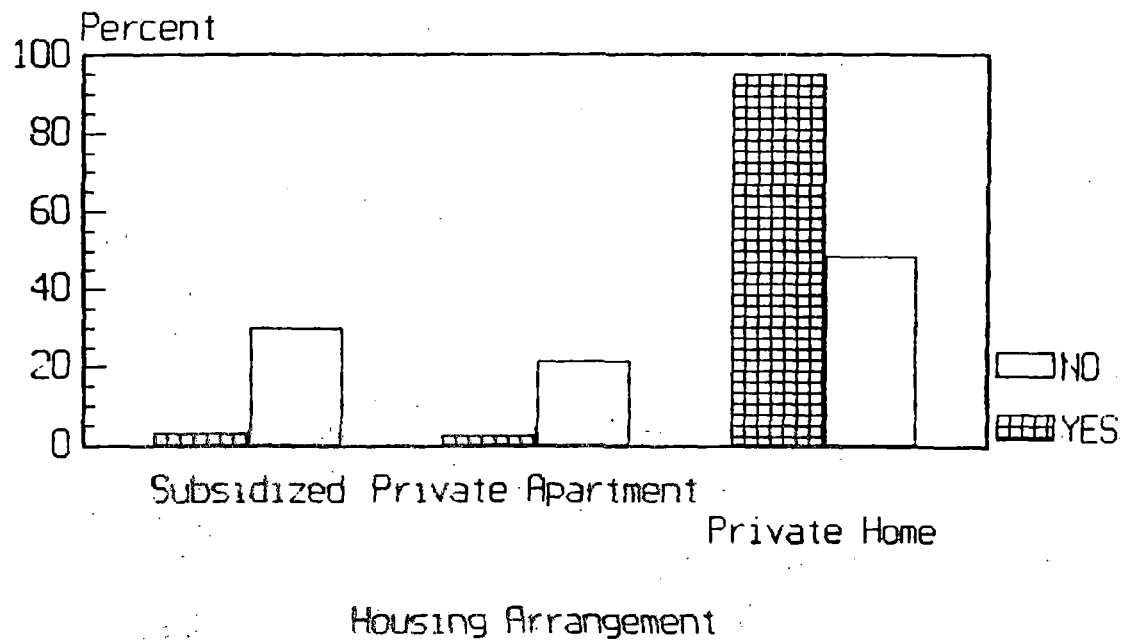


Figure 9

PERCENTAGE DISTRIBUTION OF ELDERS' HOUSING CONDITION BY INCOME (N=259)

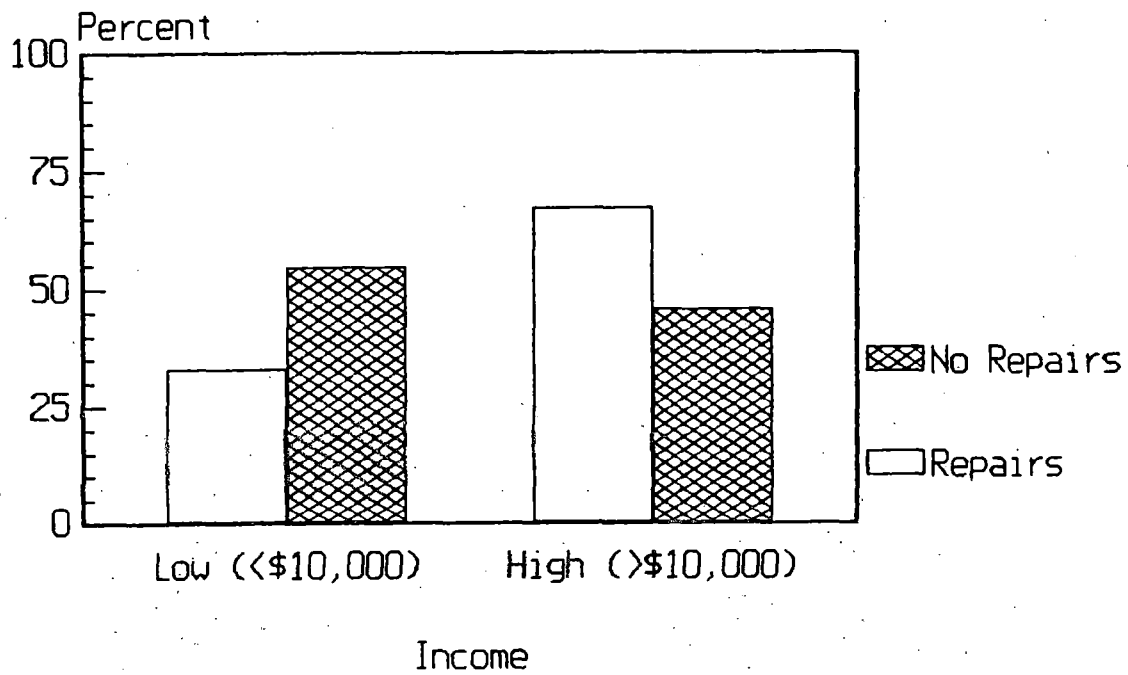


Figure 10

PERCENTAGE DISTRIBUTION OF ELDERS'
HOUSING ARRANGEMENT BY KIND OF HELP
NEEDED (N=210)

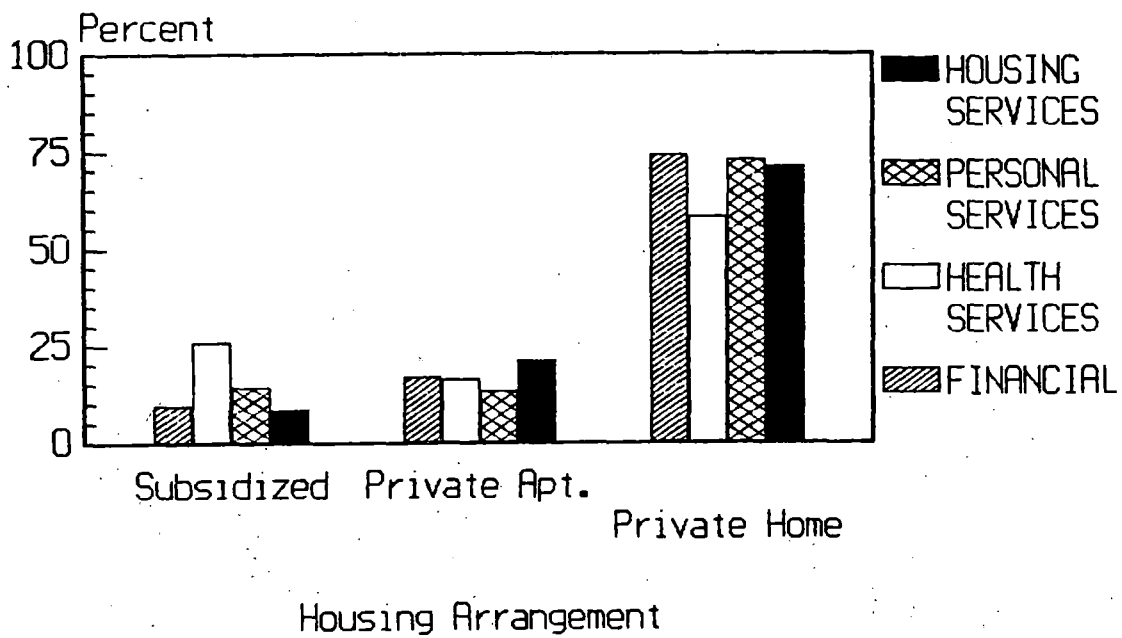


Figure 11

LIVING ARRANGEMENT OF STUDY SAMPLE
(N=285)

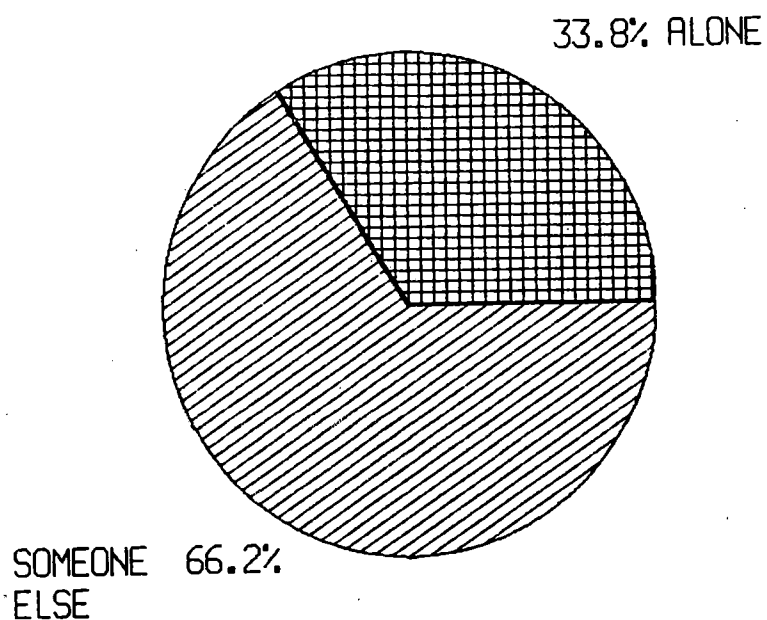


Figure 12

DISTRIBUTION OF ELDERS' HOUSING
ARRANGEMENT BY HOUSEHOLD COMPOSITION
(N=285)

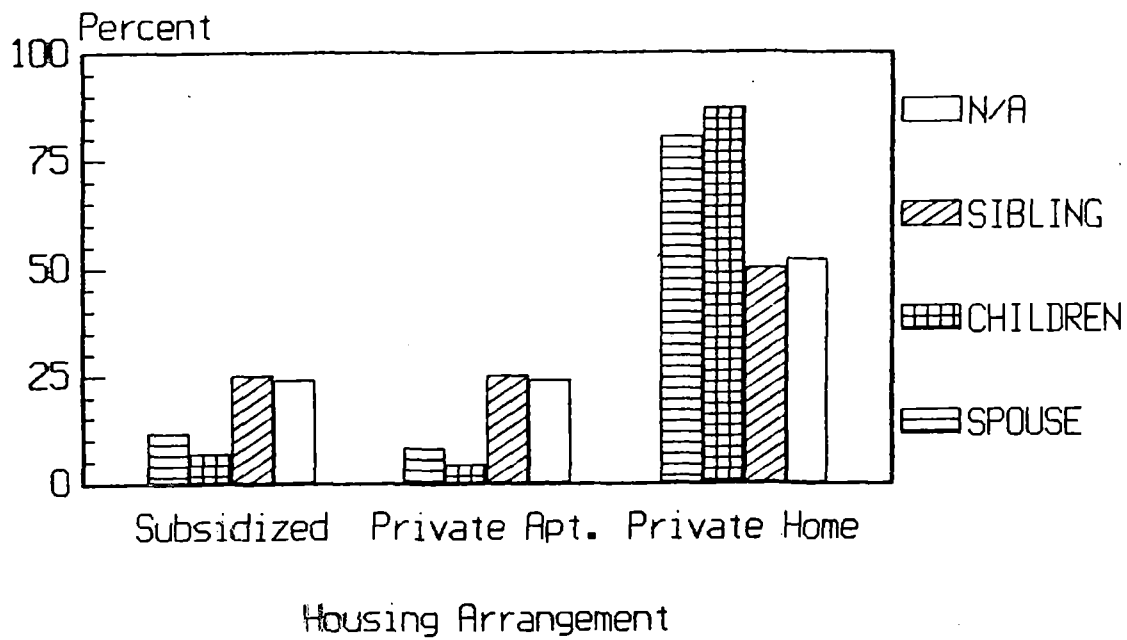


Figure 13

DISTRIBUTION OF ELDERS' HOUSING
ARRANGEMENT BY LIVING ARRANGEMENT
CONTROLLING FOR INCOME (N=279)

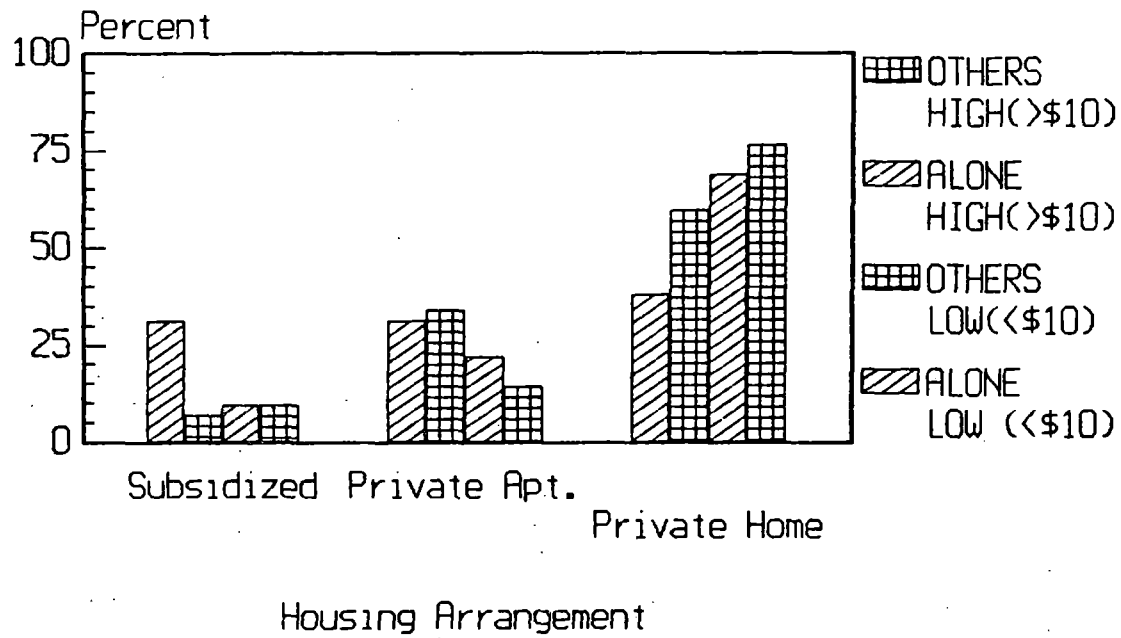


Figure 14

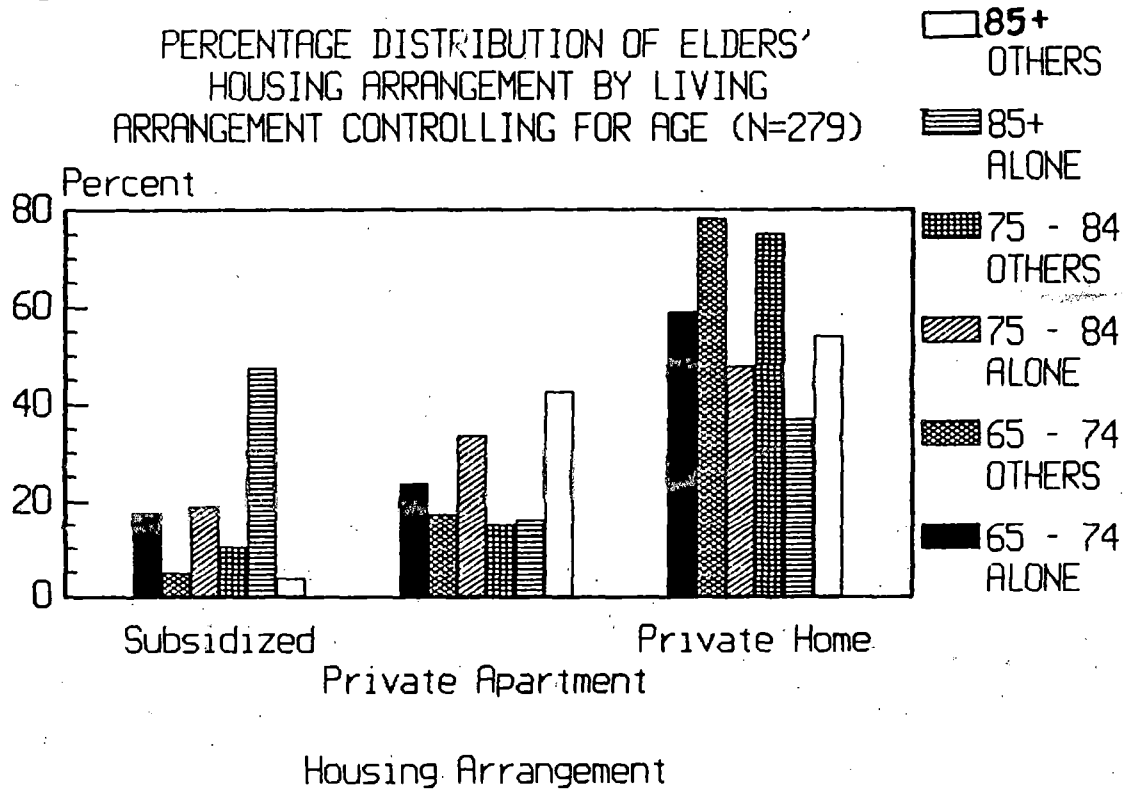


Figure 15

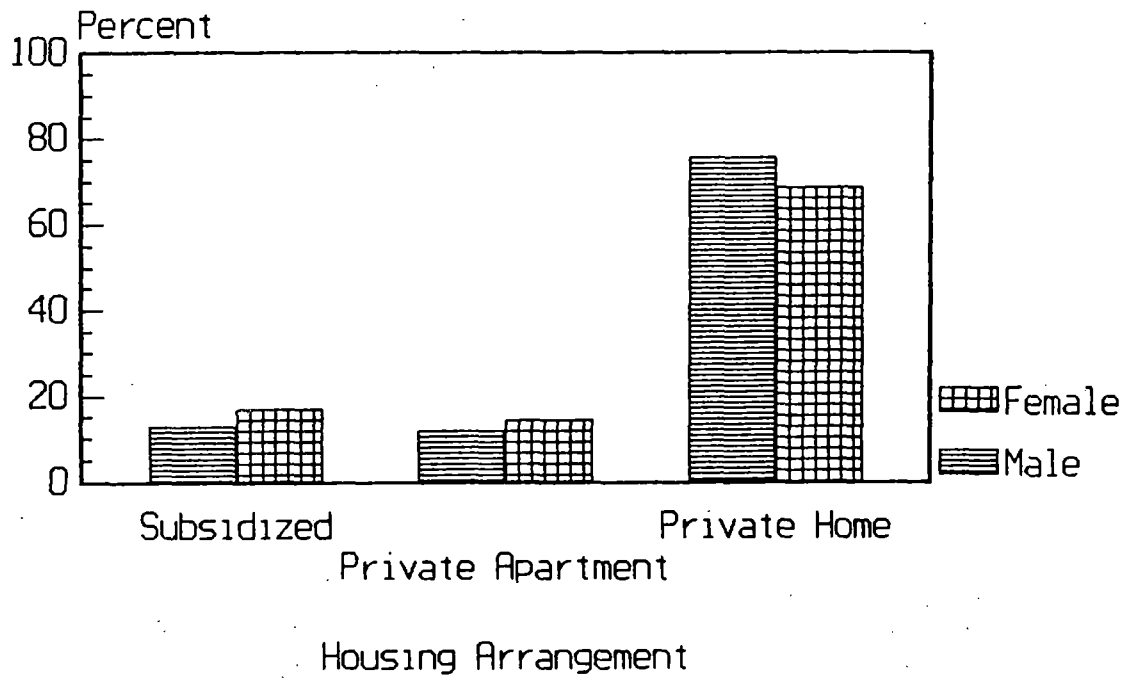
PERCENTAGE DISTRIBUTION OF ELDERS'
HOUSING ARRANGEMENT BY GENDER (N=247)

Figure 16

PERCENTAGE DISTRIBUTION OF ELDERS'
HOUSING ARRANGEMENT BY MARITAL STATUS
(N=247)

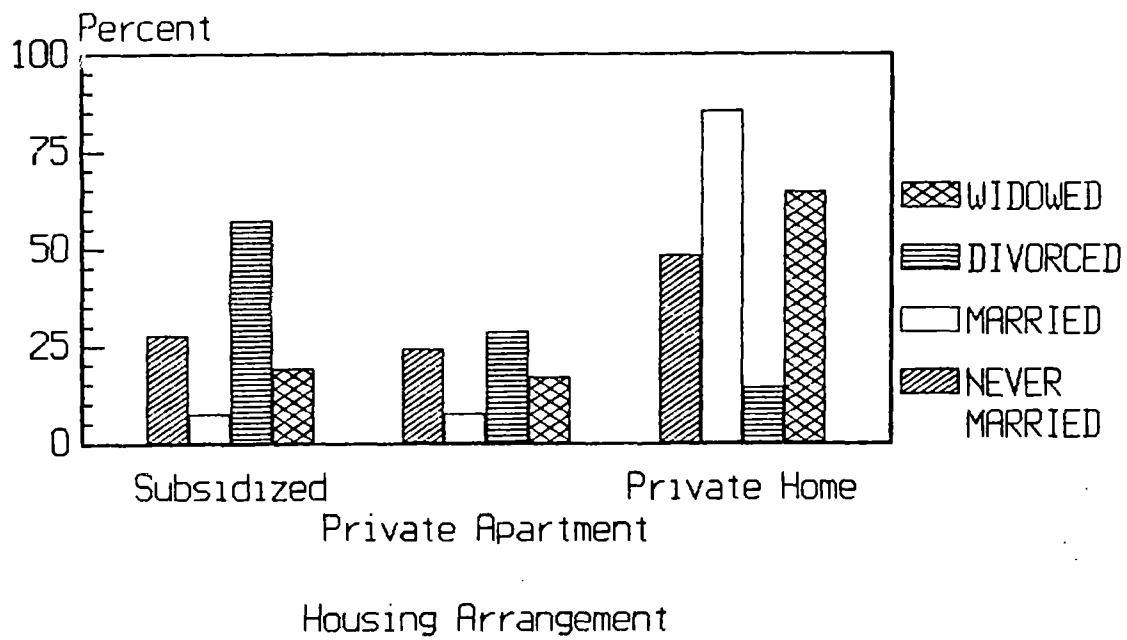
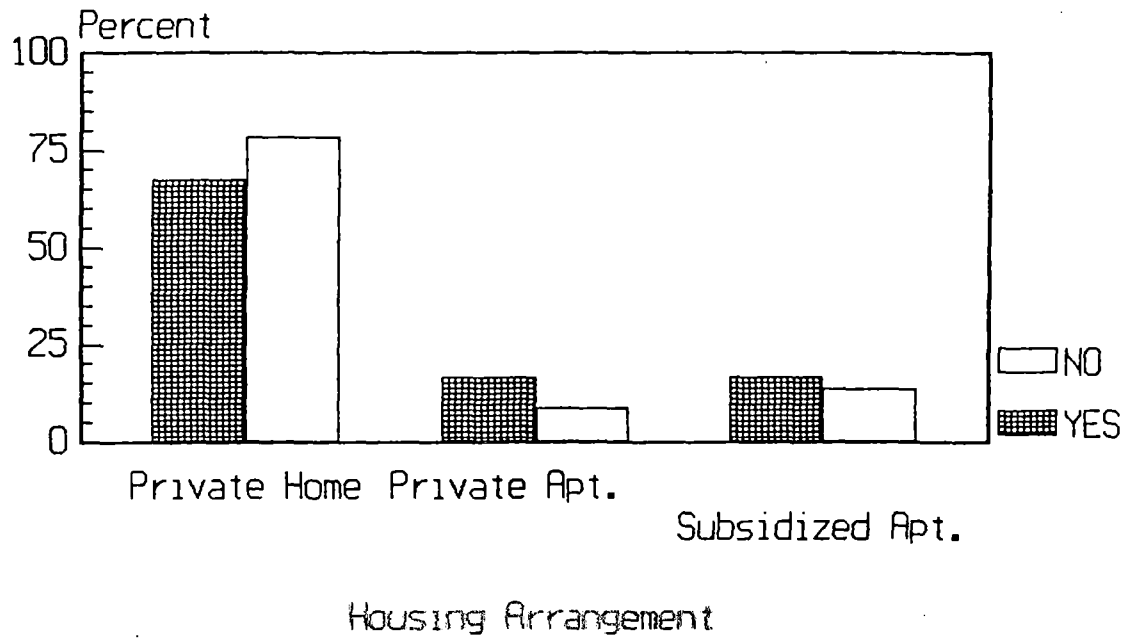


Figure 17

PERCENTAGE DISTRIBUTION OF CAREGIVERS
CONSIDERING NURSING HOME PLACEMENT FOR
ELDER BY HOUSING ARRANGEMENT (N=213)



APPENDICES

APPENDIX A

CAREGIVER SURVEY INSTRUMENT
(Designed for Telephone Application)

- 1. ELDER'S IDENTIFICATION NO.
- 2. CAREGIVER IDENTIFICATION NO.
- 3. INTERVIEWER IDENTIFICATION NO.
- 4. DATE OF INTERVIEW
D D M M Y Y
- 5. LENGTH OF INTERVIEW
 - 1. less than one hour
 - 2. one hour
 - 3. more than one hour
- 6. WHO PROVIDED THE INFORMATION
 - (1) caregiver (2) proxy

Introduce yourself to the respondent. Select the proper form of address from the respondent list.

Hello, my name is _____ . I was referred to you by _____
 (elder's name and address)
 I am interested in taking a few minutes to talk to you about the care you provide _____. Explore if this is a
 (name of elder)
 convenient time to be calling and if necessary arrange for a more convenient time for call back.

To begin the interview explain that you first wish to obtain some information about the caregivers relationship to the elder and the living arrangements of the elder.

- 7. What is your relationship to _____.
- (1) sister
- (2) spouse
- (3) daughter
- (4) son
- (5) grandchild
- (6) friend
- (7) neighbour
- (8) brother
- (9) no answer
- (10) other

8. With whom does _____ live?

- (1) alone
- (2) with spouse
- (3) with son
- (4) with daughter
- (5) with peers
- (6) with grandchild
- (7) not applicable
- (8) with brother
- (9) no answer
- (10) with sister
- (11) other

9. What is _____ living arrangement?

- (1) private home
- (2) apartment
- (3) publicly subsidized housing
- (4) room in your house
- (5) separate quarters attached to your house
- (6) boarding or rooming house
- (7) group living arrangement
- (8) other
- (9) no answer

10. How long does it take you to travel to _____ home?

- (1) within walking distance
- (2) less than 1 hour
- (3) more than 1 hour
- (4) a days journey
- (5) more than a days journey
- (7) not applicable
- (9) no answer

11. How frequently do you see _____ in person?

- (1) daily
- (2) more than once a week
- (3) weekly
- (4) few times a month
- (5) once a month or less
- (7) not applicable
- (9) no answer

12. How many times per week do you telephone _____?

- (1) daily
- (2) more than once a week
- (3) weekly
- (4) few times a month
- (5) once a month or less
- (7) not applicable
- (9) no answer

13. Now I would like to learn more about the kind of help you provide _____. Following is a list of areas in which you might provide help. Please indicate if you provide help for each of the following.

1 = yes 2 = no

- (1) walking
- (2) transferring
- (3) dressing
- (4) feeding/eating
- (5) washing
- (6) toileting
- (7) continence
- (8) telephoning
- (9) shopping
- (10) transportation
- (11) medicating
- (12) money management
- (13) meal preparation
- (14) laundry
- (15) housework
- (16) friendly visiting

14. Please indicate the total number of hours per week of care you provide. Record actual number of hours.

--	--

I am interested in knowing how this help is shared.

15. Of all people among _____ family, friends and neighbours, how many would be able to assist _____. Record the actual number.

--	--

16. Of all the people who could assist _____ how many actually do provide care? Record actual number.

--	--

17. Of the people who do assist how are they related to

_____?

- (1) daughter
- (2) daughter-in-law
- (3) son
- (4) son-in-law
- (5) spouse
- (6) neighbour
- (7) friend
- (8) other relative

18. To what extent is the care of _____ shared among family members, friends and neighbours?

- (1) minimal extent
- (2) some extent
- (3) great extent
- (7) not applicable
- (9) no answer

19. Of the people who assist _____ how many know each other?

- (1) less than one half
- (2) more than one half
- (3) don't know
- (7) not applicable
- (9) no answer

20. How confident do you feel in being able to get assistance from other relatives or friends in caring for this person? Would you say that you feel:

- (1) not at all confident
- (2) somewhat confident
- (3) very confident
- (7) not applicable
- (8) don't know
- (9) no answer

21. In terms of the help which you provide this older person, do you think you are:

- (1) not doing enough
- (2) doing enough
- (3) doing too much
- (8) don't know
- (9) no answer

22. Have you found that your helping activities have interfered with other obligations or areas of your life such as:

1 = yes 2 = no

- (1) employment
- (2) relationship with spouse
- (3) raising children
- (4) leisure activities
- (5) health
- (6) other

23. If the needs of this person increased in the future, how confident do you feel in your ability to meet those needs? Would you say that you feel not at all confident, somewhat confident, or very confident?

- (1) not at all confident
- (2) somewhat confident
- (3) very confident
- (8) don't know
- (9) no answer

--

24. How much would you be willing to sacrifice in order to continue providing care for _____? Would you be willing to:

- (1) any size sacrifice
- (2) moderate sacrifice
- (3) limited sacrifice
- (4) minimal sacrifice
- (5) no sacrifice
- (8) don't know
- (9) no answer

--

25. I will list several reasons for not continuing to provide help. If you were to decide not to continue providing help, which of these reasons would be the most important? Which would be the second important? Third most important? (Code should be 1-5)

- (1) interference with relationship with spouse or children
- (2) interference with employment
- (3) interference with personal health/fatigue
- (4) financial burden
- (5) interference with leisure/social activities

I would now like to ask you some questions about your relationship with this older person.

26. How would you describe your relationship with him/her?
Would you say that this relationship is:

- (1) very close
- (2) close
- (3) slightly distant but not strained
- (4) strained
- (5) very strained
- (8) don't know
- (9) no answer

27. I am interested in whether this relationship has changed over time. Compared to several years ago, would you say the relationship is:

- (1) much better
- (2) better
- (3) no change
- (4) worse
- (5) much worse
- (8) don't know
- (9) no answer

28. Does _____ do anything for you in return for the help you provide?

- (1) yes
- (2) no

29. How would you describe the proportion of help given and received from _____? Would you say that:

- (1) receives more than provides
- (2) equal amount
- (3) provides more than receives
- (4) don't know
- (5) provides no help
- (7) not applicable
- (9) no answer

We would like to get some information about the use of any community services by the elder.

30. To what extent does _____ use community services for assistance? Record actual number of hours.

31. Following is a list of community services. Please tell me if _____ receives them.

1 = yes 2 = no 3 = not aware of

- (1) Meals on Wheels
- (2) Homemaker
- (3) Adult Day Care
- (4) Friendly Visiting
- (5) Home Nursing Services
- (6) Social Work Services
- (7) Income Assistance
- (8) Transportation Services
- (9) Mental Health Services
- (10) Extra Mural Hospital Services
- (11) Visits from church members

32. What involvement have you had with these agencies in planning services for _____?

- (1) none
- (2) some involvement
- (3) great deal of involvement
- (4) considerable involvement
- (7) not applicable
- (9) no answer

33. If these services were not available, would you be able to provide all the care _____ requires?

- (1) yes
- (2) no
- (7) not applicable
- (8) don't know
- (9) no answer

34. Has _____ involvement with community agencies affected the level or kind of care you provide?

- (1) yes
- (2) no
- (7) not applicable
- (9) no answer

35. If the answer is YES, please indicate which one of the following best describes the change that has occurred.

- (1) no change
- (2) provide more care
- (3) provide less care
- (4) provide care of a different nature
- (7) not applicable
- (9) no answer

36. I will read a list of various forms of assistance which might be helpful to you caring for _____. Please tell me which one would be the most helpful.

- (1) more help from family/friends
- (2) more community services for elder
- (3) more community services for respondent
- (4) payment for help given
- (5) deductions on income tax for care given
- (6) low interest loans for expenses related to care
- (7) other (specify _____)
- (8) don't know
- (9) no answer

37. Have you considered nursing home placement for your relative?

- (1) yes
- (2) no
- (7) not applicable
- (8) don't know
- (9) no answer

Why or why not? _____

38. What is the date of your birth?

D	D	M	M	Y	Y

39. What is your marital status?

- (1) never married
- (2) married
- (3) widowed
- (4) separated
- (5) divorced
- (9) no answer

40. What is your employment situation?

- (1) full time
- (2) part time
- (3) not employed
- (9) no answer

41. What is your family's annual income?

- (1) under \$5,000
- (2) \$5,000 - and under \$10,000
- (3) \$10,000 - and under \$15,000
- (4) \$15,000 - and under \$20,000
- (5) \$20,000 - and under \$25,000
- (6) \$25,000 - and under \$30,000
- (7) \$30,000 - and under \$35,000
- (8) \$35,000 +
- (9) no answer

42. What is your spouse's employment situation?

- (1) full time
- (2) part time
- (3) unemployed
- (7) not applicable
- (9) no answer

43. How far did you go in school?

- (1) none
- (2) less than high school
- (3) high school
- (4) technical training
- (5) university degree
- (6) graduate degree
- (9) no answer

44. How far did your spouse go in school?

- (1) none
- (2) less than high school
- (3) high school
- (4) technical training
- (5) university degree
- (6) graduate degree
- (9) no answer

45. Are there other children or adults who are dependent on you for help?

- (1) yes
- (2) no

46. How many children or adults are dependent on you for help?

- (1) # of children
- (2) # of adults

47. How would you rate your health at the present time?

- (1) excellent
- (2) good
- (3) fair
- (4) poor
- (9) no answer

48. Compared to others your age, would you say your health is:

- (1) better
- (2) the same
- (3) worse
- (9) no answer

In conclusion I would like you to identify ways in which you think that _____ and other elders can continue to best maintain their independence.

49. In order to remain living independent do you think _____ needs more help than he/she presently receives?

- (1) yes
- (2) no
- (3) don't know
- (9) no answer

50. Explain the kind of help _____ needs to continue to remain independent.

- (1) financial
- (2) health services
- (3) personal social services
- (4) housing services
- (5) informal care

NOTE: See coding guide for instructions.

51. There are different opinions as to who has the responsibility to provide home care for older people as they become frail and unable to care for themselves, that is the elder him/herself, his/her family, community, or the government. I am interested in knowing who you think has the responsibility to provide home care to the frail elders.

- (1) family
- (2) state
- (3) their own
- (4) community
- (5) church

NOTE: See coding guide for instructions.

INTERVIEWER: Thank the respondent for his/her assistance.
(Record time)

That concludes the interview. I have enjoyed talking with you and would like to thank you for taking time to participate in the study. Without your cooperation and assistance, it would not be possible.

APPENDIX B

ELDERS SURVEY INSTRUMENT

- 1. ELDER IDENTIFICATION NO.
- 2. CAREGIVER IDENTIFICATION NO.
- 3. INTERVIEWER IDENTIFICATION NO.
- 4. DATE OF INTERVIEW
D D M M Y Y
- 5. LENGTH OF INTERVIEW
 - 1. less than one hour
 - 2. one hour
 - 3. more than one hour
- 6. NO. OF CALLS TO OBTAIN INTERVIEW (talk to someone)
 - 1 2 3 4
- 7. NO. OF CALLS TO COMPLETE INTERVIEW
 - 1 2 3 4
- 8. WHO PROVIDED THE INFORMATION
 - (1) elder (2) proxy
- 9. HOUSING ARRANGEMENTS
 - 1. publicly subsidized housing
 - 2. private apartment
 - 3. private home
 - 4. room in house of relative
 - 5. separate quarters attached to house of relative
 - 6. boarding or rooming house
 - 7. group living arrangement
 - 8. other
 - 9. missing
- 10. LOCATION OF HOUSING
 - 1. Urban
 - 2. Rural
- 11. IN WHICH HEALTH DISTRICT DOES THE ELDER LIVE

12. GENDER

- 1. Male
- 2. Female

13. LANGUAGE USED FOR INTERVIEW

- 1. English
- 2. French

INTERVIEWER: Introduce yourself to the respondent. Select the proper form of address from the respondent list.

Hello (Mr./Mrs.) _____ My name is _____. I am interested in talking to people about their family and friends and their health. You are one of many people whom we are interviewing in the province. Your name was selected by chance from a list of people aged 65 and over living in the city. I want to assure you that everything you say is confidential and your name will not be used anywhere. We are interested in general patterns among the senior population and not in the way an individual behaves.

I am going to want to talk to you about you, your family and friends, the things you do together, your health and how you manage. Some of the questions may not seem to apply to you. However, we want information from people living in all kinds of circumstances. If there are any questions you would rather not answer, please do not feel obligated to do so. We really appreciate your help.

First I have some questions about your family and the friends and neighbors you feel close to and the part you feel they play in your life.

14. Do you live alone or are you living with someone else?

- (1) alone
- (2) someone else
- (9) no answer

20. Of the sources listed below, who was mainly responsible for helping you obtain community services?

- (1) myself
- (2) family
- (3) friends
- (4) doctor
- (5) church
- (6) other
- (7) not applicable
- (8) don't know
- (9) no answer

21. Which of the following best describes the way community services has affected the help received from family, friends and neighbors.

- (1) no change
- (2) they help me less
- (3) they help me more
- (4) they provide care of a different kind
- (7) not applicable
- (9) no answer

22. Have you considered applying for any type community services?

- (1) yes
- (2) no
- (3) don't know
- (7) not applicable
- (9) no answer

23. Please indicate which of the following reasons best describe why you have not applied for community services.

- (1) too costly
- (2) not available
- (3) my family looks after me
- (4) do not qualify
- (5) too complicated, too much red tape
- (6) other
- (7) not applicable
- (9) no answer

24. Do family, friends and neighbors who assist you, know one another?

- (1) they all know one another
- (2) more than one half know one another
- (3) less than one half know one another
- (7) not applicable
- (9) no answer

--

25. Roughly speaking, about how many people in total do you have contact with or feel close to you could call upon to help in an emergency.

- (1) Number

--	--

26. Thinking now of the main such person who you could call upon in an emergency, what is this person's relation to you?

- (1) spouse
- (2) son
- (3) daughter
- (4) daughter-in-law
- (5) brother
- (6) sister
- (7) not applicable
- (8) friend
- (9) no answer
- (10) neighbor
- (11) other

--	--

27. What is this person's

(1) Name:

(2) Address:

(3) Phone Number:

28. How close or far away does _____ live from you? (name of person)

(1) within walking distance

(2) not within walking distance but the same area

(3) less than a day's journey

(4) a day's journey

(5) more than a day's journey

(7) not applicable

(9) no answer

29. How frequently do you see _____ in person? (name of care person)

(1) daily

(2) more than once a week

(3) weekly

(4) few times a month

(5) once a month

(7) not applicable

(9) no answer

30. How many times do you talk to _____ on the telephone? (name of care person)

(1) daily

(2) more than once a week

(3) weekly

(4) few times a month

(5) once a month or less

(7) not applicable

(9) no answer

31. In terms of the help you receive from _____, do you usually have to ask for help or is the help offered?

- (1) ask for help
- (2) help offered
- (3) equal amounts of each
- (4) don't know
- (7) not applicable
- (9) no answer

32. Are you able to do things for this person in return for the help you receive?

- (1) yes
- (2) no
- (7) not applicable
- (9) no answer

33. How would you describe the proportion of help given and received from this person: would you say that you receive more than you provide, that it is an equal amount, or that you provide more than you receive?

- (1) receive more than provide
- (2) equal amounts of care
- (3) provide more than receive
- (4) don't know
- (7) not applicable
- (9) no answer

34. In terms of the help which _____ provides, do you think they are not doing enough, doing enough or doing too much?

- (1) not doing enough
- (2) doing enough
- (3) doing too much
- (4) don't know
- (7) not applicable
- (9) no answer

35. How positive/sure do you feel in being able to get help from this person? Would you say that you feel:
- (1) not at all sure
 - (2) somewhat sure
 - (3) very sure
 - (4) don't know
 - (7) not applicable
36. How would you describe your relationship with _____?
- (1) very close
 - (2) close
 - (3) slightly distant but not strained
 - (4) strained
 - (5) don't know
 - (9) no answer
37. I would like to know if this relationship has changed over time. Compared to several years ago, would you say the relationship to _____ is:
(caretakers name)
- (1) much better
 - (2) better
 - (3) no change
 - (4) worse
 - (5) much worse
 - (6) don't know
 - (7) not applicable
 - (9) no answer
38. How many of your children or relatives do you see monthly?
- (1) more than five
 - (2) four or five
 - (3) two or three
 - (4) one
 - (5) none

39. When you have an important decision to make, do you have someone you can talk to about it?

(1) all the time

(2) most of the time

(3) sometimes

(4) never

40. When people you know have an important decision to make, do they talk to you about it?

(1) all the time

(2) most of the time

(3) sometimes

(4) never

41. Do you help anybody with things like shopping, filling out forms or doing repairs?

(1) all the time

(2) most of the time

(3) sometimes

(4) never

42. Does anybody rely on you to do something for them regularly; for example, cooking dinner, cleaning the house, bringing in the mail?

(1) yes

(2) no

43. How many of your friends do you see monthly?

(1) more than five

(2) four or five

(3) two to three

(4) one

(5) none

(9) no answer

I would like to know a little about your general health.

44. How would you rate your overall health at the present time?

- (1) excellent
- (2) good
- (3) fair
- (4) poor
- (9) no answer

45. Do you feel your health is better or worse than the health of other people your age?

- (1) better
- (2) about the same
- (3) worse

46. What health problem (if any) bothers you the most?

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

MEMORY AND ORIENTATION

Now I have some questions which relate to memory. There are not many of them. We are interested in asking you these questions because doctors and other clinicians frequently use them for assessing their patients. Yet we do not know how normal older persons respond to these questions. Without such information from people such as yourself, clinicians have difficulty identifying those with problems.

47. What day of the week is it?

- (1) correct answer (3) question not answered
- (2) incorrect answer (4) question not asked

48. What is the date today?

- (1) correct answer (3) question not answered
- (2) incorrect answer (4) question not asked

49. Who is the Prime Minister of Canada?

- (1) correct answer (3) question not answered
- (2) incorrect answer (4) question not asked

50. Who was the former Prime Minister of Canada?

(1) correct answer (3) question not answered

(2) incorrect answer (4) question not asked

51. Subtract three from twenty and keep subtracting three from each number, all the way down.

(1) correct answer (3) question not answered

(2) incorrect answer (4) question not asked

52. Briefly explain why any of the above questions were not asked.

ACTIVITIES OF DAILY LIVING

Now I have a few questions about the kind of help you need in your daily routine

61. Transfer: Getting out of bed, chairs, etc.

1. Do you get out of bed?

(1) yes (2) no

2. Do you move in or out of bed and chairs without any kind of assistance?

(1) yes (2) no

3. Do you use a walker, cane, furniture or any other object as a support to get into or out of chairs or bed? (But not support from others.)

(1) yes (2) no

4. Does someone give you support in getting into or out of chairs and bed? (not lifting or carrying.)

(1) yes (2) no

5. Are you lifted from one place to another?

(1) yes (2) no

INSTRUCTION: Assistance includes either help of another person or some type of mechanical support. Probing may be necessary. For example, "Do you use a chair or some other piece of furniture to help you get out of bed?" Does someone generally give you a hand when you get up out of a chair?"

62. Bathing:

1. Do you bathe without any assistance? (It could be a tub bath, sponge bath or a shower.)
- (1) yes (2) no (3) does not bathe
2. Except for help in washing one part of your body (e.g. back of legs, back, etc.) do you bathe yourself?
- (1) yes
- (2) no - implies more than minimal bathing assistance

INSTRUCTION: If someone must assist the elder with getting to/from the place of bathing or with securing the equipment of bathing (e.g. drawing a bath, bringing the basin, etc.), then that elder receives assistance in bathing and question is answered "no".

63. Dressing:

1. Do you get dressed or do you stay in bed clothes or a housecoat most of the time?
- (1) fully dressed
- (2) partially dressed
- (3) stays in bedclothes
2. Do you dress yourself without anyone's help?
- (1) yes (2) no
3. Do you dress yourself but need some limited help, for example, help with zippers, fasteners, or tying shoes?
- (1) yes (2) no
4. Do you need help putting on most clothing items?
- (1) yes (2) no

INSTRUCTION: Bedclothes is defined to be sleeping attire such as pajamas or nightgown. As elder is partially dressed if the most they wear is bedclothes plus some other clothes (e.g. pajamas top with slacks, a robe or housecoat over a nightgown, etc.) Fully dressed is a situation where bedclothes are totally replaced with other clothes such as a dress, shirt (blouse) and slacks, etc.

64. Eating and Feeding:

1. Are you partially or completely fed using tubes or intravenous fluids?
- (1) yes (2) no
2. Do you feed yourself without any help (either by person or special equipment)
- (1) yes (2) no

3. Do you feed yourself except for getting help in cutting meat or buttering bread?

(1) yes (2) no -
help more than minimal

4. Does someone else feed you?

(1) yes (2) no

INSTRUCTION: This question works better if interviewers think of the last phrase as being placed in parentheses. A "yes" answer means that the elder feeds him/herself. Cutting meat or buttering bread is disregarded. A "no" answer means that the elder receives more extensive help than mere cutting meat or buttering bread.

65. Toileting:

1. Does anyone help you when you go to the toilet (room) (e.g. getting to/from toilet room, on/off toilet, arranging clothes, cleaning up)?

(1) yes (2) no

2. Do you use a bedpan or commode?

(1) no (2) only at night

(3) more than night use

3. Does anyone help you with your bedpan or commode?

(1) yes (2) no

INSTRUCTION: Help with bedpan, etc. include urinal.

66. Incontinence:

1. Do you have any difficulty in controlling your urination?

(1) complete self control

(2) occasional accidents

(3) frequent accidents

(4) catheter

2. Do you have difficulty controlling your bowels?

(1) complete self control

(2) occasional accidents

(3) frequent accidents

(4) colostomy (ileostomy)

INSTRUCTION: Questions 1 and 2: Incontinence. Both of these questions generally require probing for proper classification of the elder.

68. Walking:

1. Do you ever go outdoors for a walk of more than one city block?

(1) yes (2) no

2. Do you walk by yourself? (Probe: Does anyone help you while you walk? Do you use anything for support?)

(1) yes (2) no

Record 1 = yes 2 = no for the following.

	2(a) OUTDOOR	2(b) INDOOR
(1) Walks without help from another person or any mechanical device.	<input type="checkbox"/>	<input type="checkbox"/>
(2) Walks with help of mechanical supports (No personal help).	<input type="checkbox"/>	<input type="checkbox"/>
(3) Walks with the assistance of another person (No mechanical help).	<input type="checkbox"/>	<input type="checkbox"/>
(4) Walks with the help of both mechanical and personal assistance.	<input type="checkbox"/>	<input type="checkbox"/>
(5) Does not walk (Possibly carried).	<input type="checkbox"/>	<input type="checkbox"/>
(6) Does not walk (Is bed bound).	<input type="checkbox"/>	<input type="checkbox"/>

INSTRUCTION: The response codes that speak of mechanical support include wheelchairs. For example, a person who is wheelchair bound but gets around without the help of another person is given a response code "2".

NOTE: (Someone who is wheelchair bound is included in the mechanical support categories)

INSTRUMENTAL ACTIVITIES OF DAILY LIVING

Elders also require from time to time assistance with other activities. Such help allows them to continue to remain independent. Following are some areas where you may be receiving some help.

69. Shopping:

1. Do you go shopping for groceries?

(1) yes (2) no

2. Do you do all of your shopping without anyone's help?

(1) yes (2) no

3. Do you do most of your shopping without anyone's help?

(1) yes (2) no

4. Do you shop for small purchases without anyone's help?

(1) yes (2) no

5. Does someone have to accompany you on all your shopping trips?

(1) yes (2) no

INSTRUCTION: Question 2: All Shopping. All of your shopping without anyone's help means that the elder generally does all types of grocery shopping (big/small orders of groceries, etc.) without anyone's help. Include any transportation help the elder gets to/from the store. Disregard such "help" as another person picking up an occasional incidental item (a carton of milk, newspaper, etc.) since that person was going to (by) the store anyway.

70. Meals:

1. Where do you generally eat most of your meals?

(1) home (2) meal site

(3) institution (4) restaurant

(5) other

2. How often do you eat meals away from your home?

(1) always (2) usually

(3) sometimes (4) rarely or never

3. Do you occasionally prepare full meals without anyone's help?

(1) yes (2) no

4. Do you occasionally prepare such a meal if someone else supplies the ingredients?

(1) yes (2) no

5. Do you prepare any partial meals or heat and serve prepared meals, (e.g. "TV" dinners)?

(1) yes (2) no

INSTRUCTION: Question 3: Full Meal. Heating up a TV dinner is not preparing a full meal.

71. Laundry:

Do you have a washer/dryer in your home or nearby that you can use for laundry?

- | | | | |
|----|--------------------------------|--------|--------------------------|
| 1. | (1) in client's home | washer | <input type="checkbox"/> |
| | (2) within client's apt. bldg. | | <input type="checkbox"/> |
| | (3) laundromat nearby | dryer | <input type="checkbox"/> |
| | (4) none | | <input type="checkbox"/> |
2. Do you do any of your own laundry?
- (1) yes (2) no
3. Do you take care of all your laundry without anyone's help?
- (1) yes (2) no
4. Do you take care of most of your laundry without anyone's help?
- (1) yes (2) no
5. Do you launder small items like socks, underwear, etc.?
- (1) yes (2) no

INSTRUCTION: Question 2: Probing has been found to be useful for this question. Some elders have initially answered "no" to this question but later indicate that they do wash some small items like socks and underwear.

72. Housework:

1. Do you do any housework
- (1) yes (2) no
2. Do you generally maintain your own house without any help including heavy cleaning like scrubbing floors and washing windows?
- (1) yes (2) no
3. Do you do all of your light housework, like bedmaking, dishwashing, dusting, etc., but need help with heavy work?
- (1) yes (2) no
4. Do you do some of your light housework tasks, but need occasional help?
- (1) yes (2) no
5. Do you need help with most or all housework?
- (1) yes (2) no

73. Telephoning:

1. Do you use the telephone?
 (1) yes (2) no
2. Do you have access to a telephone?
 (1) yes (2) no
3. When you use the telephone, do you...
- (a) Look up and dial numbers without someone helping you?
 (1) yes (2) no
- (b) Dial some numbers from memory?
 (1) yes (2) no
- (c) Dial the operator?
 (1) yes (2) no
- (d) Answer the telephone?
 (1) yes (2) no
- (e) Use the telephone only with extensive assistance?
 (1) yes (2) no

INSTRUCTION: Question 3(a): The elder need not refer to a formal telephone book to answer this question affirmatively. Looking up a number from any list of numbers and dialing that number without help meets the criteria of this question.

74. Money Management:

1. Do you handle and control any of your own money?
 (1) yes (2) no
2. Have you had any problem in the last six months, like a bounced check or a failure to pay a bill on time?
 (1) yes (2) no
3. Do you handle all of your own banking and bill payments?
 (1) yes (2) no
4. Do you take care of day-to-day buying but get help with balancing your checkbook or making bill payments?
 (1) yes (2) no

INSTRUCTION: Question 3: If the elder says yes to this question, generally interviewers should probe to make sure that the client does not get help balancing the checkbook, which some clients may not include in a definition of banking. If they get help with the checkbook, then the

answer is no and question 4 must be answered yes. Similarly help with transportation getting to/from the bank, etc. is considered help with money management.

75. Transportation:

1. Do you sometimes travel to places beyond mere walking distance?
(1) yes (2) no
2. Do you drive a car?
(1) yes (2) no
- 2a. Do you own a car?
(1) yes (2) no
3. Do you use public transportation, (including curbside senior vans)?
(1) yes (2) no
- 3a. When you use public transportation do you need assistance?
(1) always (2) sometimes (3) never
4. Do you travel in a car or taxi (including door-to-door senior vans)?
(1) yes (2) no
- 4a. Do you need someone to assist you when travelling in a car or taxi?
(1) always (2) sometimes (3) never

76. Medication:

1. Does someone else take total care of preparing and giving you your medicine?
(1) yes (2) no
2. Do you take your medicine without any help or without being reminded to take them?
(1) yes (2) no
3. Does someone else remind you to take your medication?
(1) yes (2) no
4. Does someone else prepare your medicine in advance in separate dosages?
(1) yes (2) no

(Memory and Orientation continued)

53. "What is your telephone number?"

- (1) correct answer (3) question not answered
 (2) incorrect answer (4) question not asked

NOTE: If elder does not have a telephone ask the following question.

54. "What is your street address?"

- (1) correct answer (3) question not answered
 (2) incorrect answer (4) question not asked

55. "What is your full name?"

- (1) correct answer (3) question not answered
 (2) incorrect answer (4) question not asked

56. "What is the name of this place?"

- (1) correct answer (3) question not answered
 (2) incorrect answer (4) question not asked

57. "How old are you?"

- (1) correct answer (3) question not answered
 (2) incorrect answer (4) question not asked

58. "When were you born?"

- (1) correct answer (3) question not answered
 (2) incorrect answer (4) question not asked

59. "What is your mother's maiden name?"

- (1) correct answer (3) question not answered
 (2) incorrect answer (4) question not asked

60. Briefly explain why any of the above questions were not asked.

77. Here is a list that describes some of the ways people feel at different times.

1 = agree 2 = disagree 3 = not sure

- | | | |
|-----|--|--------------------------|
| 1. | "I am just as happy as when I was younger." | <input type="checkbox"/> |
| 2. | "These are the best years of my life." | <input type="checkbox"/> |
| 3. | "My life could be happier than it is now." | <input type="checkbox"/> |
| 4. | "This is the dreariest time of my life." | <input type="checkbox"/> |
| 5. | "Most of the things I do are boring or monotonous." | <input type="checkbox"/> |
| 6. | "Compared to other people I get down in the dumps too often." | <input type="checkbox"/> |
| 7. | "The things I do are as interesting to me as they ever were." | <input type="checkbox"/> |
| 8. | "I have made plans for things I will be doing a month or a year from now." | <input type="checkbox"/> |
| 9. | "Compared to other people my age, I make a good appearance." | <input type="checkbox"/> |
| 10. | "As I grow older, things seem better than I thought they would be." | <input type="checkbox"/> |
| 11. | "I expect some interesting and pleasant things to happen to me in the future." | <input type="checkbox"/> |
| 12. | "I feel old and somewhat tired." | <input type="checkbox"/> |
| 13. | "As I look back on my life, I am fairly well satisfied." | <input type="checkbox"/> |
| 14. | "I would not change my past life even if I could." | <input type="checkbox"/> |
| 15. | "I have gotten pretty much what I expected out of life." | <input type="checkbox"/> |
| 16. | "When I think back over my life, I did not get most of the important things I wanted." | <input type="checkbox"/> |

17. "In spite of what people say, the lot of the average person is getting worse, not better."
18. "I have gotten more of the breaks in life than most of the people I know."
19. Comments on regarding Life Satisfaction.
-
-

Finally, I'd like to know a little more about you.

78. Date of birth.

D	D	M	M	Y	Y

79. What is the language you first learned in childhood and still understand?

- (1) English (3) other
- (2) French (9) no answer

80. What is your marital status?

- (1) never married (4) widowed
- (2) married (5) other
- (3) divorced/separated (9) no answer

81. How long have you been widowed?
Number of years.

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82. Education: How far did you go in school?

- (1) no formal education
- (2) grade school
- (3) some high school
- (4) completed high school
- (5) high school and some university
- (6) high school and technical or vocational training
- (7) university degree
- (8) post university training

83. Have you had a change in your permanent residence within the last year?

(1) no: how long has client lived at current address? Years?

(2) yes: voluntary move: _____ months ago?

(3) yes: forced move: _____ months ago?

(9) no answer

84. What is your primary (largest) source of income?

(1) Old Age Security (O.A.S.)

(2) Old Age Security and Government Supplement (O.A.S., G.I.S.)

(3) Old Age Security and Canada Pension

(4) Old Age Security, Canada Pension, G.I.S.

(5) Interest earnings/dividends, RRSP's

(6) Private pension

(7) other

(9) no answer

85. What is your family's annual income?

(1) under \$5,000

(2) \$5,000 - and under \$10,000

(3) \$10,000 - and under \$15,000

(4) \$15,000 - and under \$20,000

(5) \$20,000 - and under \$25,000

(6) \$25,000 - and under \$30,000

(7) \$30,000 - and under \$35,000

(8) \$35,000 +

(9) no answer

In conclusion, I would like you to identify ways in which you think you and other seniors can best maintain their independence.

86. In order to remain living independent, do you think you need more help than you currently receive?

(1) yes

(3) don't know

(2) no

(9) no answer

87. Explain the kind of help you need to continue to be independent.

- (1) financial
- (2) health services
- (3) personal social services
- (4) housing services
- (5) informal care

NOTE: (See coding guide for instructions)

88. There are different opinions as to who has the responsibility to provide care for older people as they become less able to care for themselves, i.e. the elder him/herself, his/her family, community or the government. I am interested in knowing who you feel has the responsibility to provide home care to the frail elders.

- (1) family responsibility
- (2) state responsibility
- (3) their own responsibility
- (4) community responsibility
- (5) church responsibility

NOTE: (See coding guide for instructions)

89. Housing

1 = yes 2 = no

- (1) Did your home need any repairs in the last six months?
- (2) Did you (help) make any of those repairs?
- (3) Are you able to make some minor home repairs if they are needed?

INTERVIEWER: Thank respondent for his/her assistance.
(Record time)

That concludes the interview. I have enjoyed talking with you and would like to thank you for taking time to participate in the study. Without your cooperation and assistance, it would not be possible.