BUILDING A SELF-SUSTAINING COMMUNITY SYSTEM OF HEALTH SUPPORT FOR THE ELDERLY: DETERMINANTS OF INDIVIDUAL PARTICIPATION IN VOLUNTARY COMMUNITY ACTION

by

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ABSTRACT

Ongoing funding constraints and decreasing resources in the Canadian health care system have led to major changes in the delivery of health care services. These changes include community collaboration around health issues, and in particular an emphasis on self-help models of community development. The purpose of this thesis was to examine the factors in elderly people's lives which influence their involvement in the planning and provision of their own health services. Study participants consisted of residents living in a compact high-density apartment complex within the city of London, Ontario. The apartment complex has a high concentration of elderly and is an area of high health service utilization. It consists of 13 apartment buildings with 2325 units and 64 businesses under a single management group, the ESAM Corporation. The study consisted of two phases and utilized cross-sectional survey methodology. Phase I (n=1231) involved a secondary analysis of a 1997 Community Survey which was used to identify predictors of health and health service utilization in the Cherryhill population. Bi-variate correlational analyses were used to identify the predictors of health. Predictors of health included well-being, functional ability and age. Univariate analyses, cross-tabs analyses with chi-square tests and t-tests were used to examine the predictors of health service utilization. Predictors of health service utilization included health, functional ability, age and getting satisfactory answers to health questions. Phase II of this study (n=181) examined predictors of health voluntarism and volunteer leadership and specifically examined the factors in people's lives that are *receptive to change* which have an impact on health-related volunteer behaviour; those factors over which individuals, health professionals and community planners can have some influence. The moderating effects of non-modifiable variables such as age, socio-demographic and personality variables on the relationship between modifiable variables and health voluntarism and volunteer leadership were also examined. Bi-variate and multi-variate analyses were used to determine predictors of health voluntarism and volunteer leadership. It was found that individuals who were younger, more active, received fewer health services, experienced fewer limitations in their day-to-day functioning, and those with higher levels of affective (short-term) well-being were more predisposed to volunteering. Likewise, it was found that individuals whose personality characteristics included being extroverted, open to change and agreeable were more likely to volunteer. The majority of elderly volunteers reported they would not take on positions requiring leadership. A series of hierarchical multiple regression analyses were used to determine if non-modifiable characteristics of study participants (e.g., age; personality; socio-economic status; etc.) masked the influence of modifiable factors on health voluntarism and volunteer leadership. Several interactions were found. For example, the extent to which a person volunteered in the past moderated the influence of health/function on health voluntarism. Likewise a person's age moderated the influence of health service utilization on volunteer leadership. These findings have implications for practice in community development and health settings. Further research is required to fully examine factors receptive to change such as functional ability, psychosocial and environmental factors, and subsequent strategies that may be employed to maximize the involvement of elderly individuals in the planning and provision of their own health services.

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TABLE OF CONTENTS

Page

CHAPTER I: HEALTH CARE TRENDS, COMMUNITY DEVELOPMENT AND THE ELDERLY 1
- Demographic and Population Trends 2
- Current Health Care Trends and the Role of Community Development in Health Care 4
- Health Care, Health Service Utilization and the Elderly 9
- Planned or Guided Change and Societal Guidance Theory 13
- The Elderly Person as a Volunteer in Health Programs 15
- Statement of the Problem 19
- Purpose of the Study 20
- Criteria for Inclusion of Variables in Analyses 21
- Research Questions 21

CHAPTER II: THE INFLUENCE OF INDIVIDUAL DIFFERENCES ON VOLUNTARY COMMUNITY ACTION 24
- Individual versus Community Empowerment 32
- Theories of Individual Empowerment 33
- Theories of Voluntarism 45
- Psychological Commitment and Loyalty 52
- Personality, Aging and Health 55
- Health and the Elderly 58
- Life Satisfaction and the Elderly 61
- Health Service Utilization Patterns and the Elderly 63

CHAPTER III: METHODOLOGY 68
- Study Participants 69
- Sampling Design 70
- Instrumentation 72
- Procedures 79
- Data Analyses Procedures 87

CHAPTER IV: PHASE I RESULTS: DETERMINANTS OF HEALTH AND HEALTH SERVICE UTILIZATION 88
- The Cherryhill Population 89
- Predictors of Health 93
- Data Analyses 98

Page

Predictors of Health Service Utilization 103
Data Analyses 103
Conclusions 114

CHAPTER V: PHASE II RESULTS: DETERMINANTS OF INDIVIDUAL PARTICIPATION IN VOLUNTARY HEALTH-RELATED COMMUNITY ACTION 119
Socio-Demographic Differences Between Volunteers and Non-Volunteers 124
Health and Health Service Utilization Differences Between Volunteers and Non-Volunteers 129
Functional Ability Differences Between Volunteers and Non-Volunteers 134
Well-Being Differences Between Volunteers and Non-Volunteers 134
Physical and Social Environmental Satisfaction Differences Between Volunteers and Non-Volunteers 139
General Volunteer Behaviour Differences Between Volunteers and Non-Volunteers 139
Social Resource Differences Between Volunteers and Non-Volunteers 142
Personality Differences Between Volunteers and Non-Volunteers . . . 152
Activity Level Differences Between Volunteers and Non-Volunteers . 156
Reasons for Volunteering 161
Psychological Commitment to Volunteering by Cherryhill Residents . 161
Reasons for Not Volunteering Provided by Non-Volunteers 164
Predictors of Leadership in Health Voluntarism 164
Conclusions 169
The Moderating Effects of "Non-Modifiable" Variables on the Relationship Between "Modifiable" and Dependent Variables 171

CHAPTER VI: DISCUSSION AND CONCLUSIONS 189
A Summary of the Findings of Phase I 189
A Summary of the Predictors of Health 190
A Summary of the Predictors of Health Service Utilization 193
A Summary of the Findings of Phase II 193
R_1: The Influence of "Modifiable" Variables on Health Voluntarism and Volunteer Leadership 195
R_2: The Moderating Effects of "Non-Modifiable" Variables on Health Voluntarism and Volunteer Leadership 199
R_3: Factors Involved in Predicting Health and Health Service Utilization and Health Voluntarism and Leadership For Elderly Individuals 200
Limitations of the Study 203
Implications for Practice 204
Recommendations for Future Research 208

Page

REFERENCES 212

Appendix A: **Building a Self-Sustaining Community System of Health Support for the Elderly: The Cherryhill Community Project** 236
Appendix B: **Definition of Terms** 240
Appendix C: **Cherryhill Community Survey** 246
Appendix D: **Cherryhill Community Health Voluntarism Survey** 272
Appendix E: **Ethics Approval** 292
Appendix F: **Letter of Explanation** 293
Appendix G: **Consent to Participate** 294

LIST OF TABLES

Table		Page
Table 2.1:	Summary of Key Variables Influencing General Volunteer Behaviour and the Health, Well-Being and Health Service Utilization Patterns of Elderly Individuals	26
Table 2.2:	Inter-Relationships of Key Variables Influencing Volunteer Behaviour, Health, Well-Being and Health Service Utilization	31
Table 3.1:	Variables, Research Questions and Phase II Health Voluntarism Survey Items	80
Table 4.1:	Known Variables Influencing Health and Health Service Utilization and Corresponding Items on the Cherryhill Community Survey	90
Table 4.2:	Comparison of Sub-Sample Respondent Characteristics	96
Table 4.3:	Factor Analysis of Health and Health Service Utilization Predictor Variables Measured by the Community Survey	99
Table 4.4:	Inter-Correlations Among Subjective and Objective Health Variables	101
Table 4.5:	Correlations Among Known Predictor Variables	102
Table 4.6:	Contingency Table Results for Categorical Variables	109
Table 5.1:	Comparison of Volunteer and Willing to Volunteer Sub-Sample Respondent Characteristics	122
Table 5.2:	Occupation Classification of the Total Sample (n=162) Using the Statistics Canada National Occupation Classification Matrix	126
Table 5.3:	Occupation Classification of Cherryhill Community Project Volunteers (n=18) Using the Statistics Canada National Occupation Classification Matrix	127
Table 5.4:	Occupation Classification of Cherryhill Residents Willing to Volunteer (n=79) Using the Statistics Canada National Occupation Classification Matrix	128
Table 5.5:	Socio-Demographic Differences of the Total Sample, Volunteer and Non-Volunteer Respondents	130
Table 5.6:	Recent Life Changes Experienced by the Total Sample, Volunteer and Non-Volunteer Respondents	131
Table 5.7:	Health Service Utilization Differences of Volunteers and Non-Volunteers	135
Table 5.8:	Percent of Volunteers and Non-Volunteers Reporting Limitations in their Day-to-Day Functioning	136
Table 5.9:	Health Conditions Causing Functional Limitations as Reported by Volunteers and Non-Volunteers	137
Table 5.10:	Comparison of Other Current Volunteer Activities Engaged in by Volunteers and Non-Volunteers	141
Table 5.11:	Comparison of Pre-Retirement Volunteer Activities Engaged in by Volunteers and Non-Volunteers	143
Table 5.12:	Number of Social Supports Identified by Volunteers and Non-Volunteers	144
Table 5.13:	Satisfaction with Social Supports Identified by Volunteers and Non-Volunteers	145
Table 5.14:	Type of Social Support Identified by Volunteers and Non-Volunteers that They Can Count on When They Need Help	146

Table		Page
Table 5.15:	Type of Social Support Identified by Volunteers and Non-Volunteers that They Can Count on to Help Them Feel More Relaxed When They Are Under Pressure	147
Table 5.16:	Type of Social Support Identified by Volunteers and Non-Volunteers that They Can Count on to Accept Them Totally	148
Table 5.17:	Type of Social Support Identified by Volunteers and Non-Volunteers that They Can Count on to Care About Them	149
Table 5.18:	Volunteers that They Can Count on to Help Them Feel Better When They are Down-in-the-Dumps	150
Table 5.19:	Type of Social Support Identified by Volunteers and Non-Volunteers that They Can Count on to Console Them When They Are Very Upset	151
Table 5.20:	Comparison of Types of Activities and Frequency of Participation by Volunteers and Non-Volunteers	158
Table 5.21:	Reasons for Not Volunteering Reported by Non-Volunteers	165
Table 5.22:	Percentage of Elderly Individuals Willing to Assume a Leadership Position	167
Table 5.23:	Correlations Between "Modifiable' and "Non-Modifiable" (n=107) and Social World Variables (n=17) and Volunteer Leadership	168
Table 5.24:	Summary Variables that Successfully Predict Health Voluntarism and Volunteer Leadership	170
Table 5.25:	Factor Analysis of the "Modifiable" Variables Measured by the Health Voluntarism Survey (n=181)	173
Table 5.26:	Correlations Between "Modifiable" Variables and Health Voluntarism and Volunteer Leadership (n=181)	174
Table 5.27:	Regression Analysis of Interaction Effects of Psychosocial/Environmental and "Non-Modifiable" Variables on Health Voluntarism and Volunteer Leadership	175
Table 5.28:	Regression Analysis of Interaction Effects of Health/Functional Ability and "Non-Modifiable" Variables on Health Voluntarism and Volunteer Leadership	176
Table 5.29:	Regression Analysis of Interaction Effects of Health Service Utilization and "Non-Modifiable" Variables on Health Voluntarism and Volunteer Leadership	177
Table 5.30:	Summary of Hierarchical Regression Analysis for the Interaction Effect of Past Volunteer Involvement x Health/Functional Ability on Health Voluntarism (n=168)	179
Table 5.31:	Summary of Hierarchical Regression Analysis for the Interaction Effect of Conscientiousness x Health/Functional Ability on Health Voluntarism (n=168)	180
Table 5.32:	Summary of Hierarchical Regression Analysis for the Interaction Effect of Age x Health Service Utilization on Volunteer Leadership (n=96)	181
Table 5.33:	Summary of Hierarchical Regression Analysis for the Interaction Effect of Openness to Experience x Health Service Utilization on Volunteer Leadership (n=96)	182

Table **Page**

Table 6.1: **Predictors of Subjective Health and Health Service Utilization (n=1231) and Health Voluntarism and Volunteer Leadership (n=181)** 201

LIST OF FIGURES

Figure		Page
Figure 1.1:	The Key Components and Processes of Community Action	6
Figure 1.2:	The Community Systems Approach to Planned Social Change	7
Figure 2.1:	Wallerstein's Model of Empowerment	40
Figure 2.2:	An Adaptation of Nosek & Fuhrer's Heuristic Model of Independence Among Individuals with Disabilities	44
Figure 2.3:	The Chavis & Wandersman Model for Determinants of Local Action	46
Figure 4.1:	Age and Population Distribution of Cherryhill Residents	92
Figure 4.2:	Health of Cherryhill Residents by Age	94
Figure 4.3:	Duration of Residency in Cherryhill Village by Age	95
Figure 4.4:	Number One Health Service Cherryhill Residents Reported Receiving and Agencies Providing the Services	105
Figure 4.5:	Second Health Service Cherryhill Residents Reported Receiving and Agencies Providing the Services	106
Figure 4.6:	Third Health Service Cherryhill Residents Reported Receiving	107
Figure 4.7:	Fourth Health Service Cherryhill Residents Reported Receiving	108
Figure 4.8:	Error Bar Chart Showing the Means and Standard Deviations of Subjective Health Ratings of Residents Not Receiving Health Services and Those Who Are Receiving Health Services	111
Figure 4.9:	Error Bar Chart Showing the Means and Standard Deviations of Physician Visits of Residents Not Receiving Health Services and Those Who Are Receiving Health Services	112
Figure 4.10:	Error Bar Chart Showing the Means and Standard Deviations for Age of Residents Not Receiving Health Services and Those Who Are Receiving Health Services	113
Figure 4.11:	Error Bar Chart Showing the Means and Standard Deviations of Frequency of Leaving the Apartment for Residents Not Receiving Health Services and Those Who Are Receiving Health Services	115
Figure 4.12:	Error Bar Chart Showing the Means and Standard Deviations in Ease of Getting Satisfactory Answers to Health Questions for Residents Not Receiving Health Services and Those Who Are Receiving Health Services	116
Figure 4.13:	Error Bar Chart Showing the Means and Standard Deviations of Sense of Community of Residents Not Receiving Health Services and Those Who Are Receiving Health Services	117
Figure 5.1:	Error Bar Chart Showing the Means and Standard Deviations in Having Sufficient Income of Volunteers and Residents Willing to Volunteer	125
Figure 5.2:	Error Bar Chart Showing the Means and Standard Deviations in Age of Cherryhill Community Project Volunteers and Non-Volunteers	132
Figure 5.3:	Error Bar Chart Showing the Means and Standard Deviations of Satisfaction with Neighbours of Volunteers and Non-Volunteers	140
Figure 5.4:	Error Bar Chart Showing the Means and Standard Deviations in Extroversion of Volunteers and Non-Volunteers	153

Table Page

Figure 5.5: Error Bar Chart Showing the Means and Standard Deviations in Openness to Experience of Volunteers and Non-Volunteers 154
Figure 5.6: Error Bar Chart Showing the Means and Standard Deviations in Agreeableness of Volunteers and Non-Volunteers 155
Figure 5.7: Error Bar Chart Showing the Means and Standard Deviations in Activity Participation by Volunteers and Non-Volunteers 157
Figure 5.8: Reasons for Volunteering 162
Figure 5.9: Health Voluntarism as a Function of Past Volunteer Behaviour and Health/Functional Ability 184
Figure 5.10: Health Voluntarism as a Function of the "Conscientiousness" Trait Dimension of Personality and Health/Functional Ability 185
Figure 5.11: Volunteer Leadership as a Function of Age and Health Service Utilization . . 186
Figure 5.12: Volunteer Leadership as a Function of the "Openness to Experience" Trait Dimension of Personality and Health Service Utilization 187
Figure 6.1: The Many Factors that Influence Subjective Health in the Present Study 191

CHAPTER I

HEALTH CARE TRENDS, COMMUNITY DEVELOPMENT AND THE ELDERLY

Financial constraints and shrinking health care resources have resulted in new models of health care service delivery in Canada. One of the most significant changes in recent years has been a community health movement, with individuals and communities being encouraged to take more responsibility for their health and become partners in health care planning and health service delivery, and to ensure that communities play an integral role in health care reform initiatives. An added challenge for an already burdened health care system is the rapidly growing elderly population, in particular the anticipated growth surge in individuals 75 years of age and older who have a greater number of health problems and who are major consumers of health care services. The benefits of involving the public and communities in collaborative health planning using a variety of community development approaches has been well documented. Few studies, however, have examined whether these approaches are feasible or successful with communities of very old individuals who with increasing age and physiological decline become increasingly dependent on the health care system and others around them. There are many unanswered questions. For example, can very old individuals share responsibility for the planning and provision of their own health care services? Do current community development approaches, where needs and actions are self-determined and

driven by the community members themselves, work for health planning initiatives with communities of very old individuals? Some researchers argue that, yes, this is possible. Others argue that it is not possible. It has been suggested that elderly individuals, due to the physiological decline and dependency associated with the aging process, are not able to become involved in the collaborative partnerships that are necessary for community development to occur. What are the factors that influence volunteer involvement in health-related activities for elderly individuals, especially the very old living in the community? Answers to these questions are urgently needed as this group of individuals is the fastest growing segment of our population today. Effective and economical strategies must be put in place to deal with the unique and increasing health needs of the oldest members of our population.

The present study examines factors that influence the volunteer behaviour of elderly individuals living in the community. This study will hopefully help health professionals and community planners better understand whether very old individuals can be given more responsibility for their own health and the health of their neighbours and, if so, what will lead these individuals to become more involved in health-related volunteer opportunities. This study was conducted within a community development context. Chapter I outlines current demographic and population trends, health care trends, community development approaches being used and the role of elderly individuals as volunteers. This chapter will also describe the framework within which the volunteer behaviour of elderly individuals will be studied.

Demographic and Population Trends

Current statistics and population growth projections all suggest a significant increase

in the number of elderly individuals living in the community by the year 2011. In particular, an increase in individuals 75 years of age and older who have significantly greater health and health service needs is expected (Arnold, 1991; Canadian Policy Research Networks, 1997; Health Canada, 1998; Kemp, Brummel-Smith & Ramsdell, 1990; Rosenberg & Moore, 1997; Salmoni, Sahai, Heard, Pong & Lewko, 1996; The National Advisory Council on Aging, 1993). The projected rate of population growth of elderly individuals 65 years of age and older for the period of 1996 to 2016 is more than three times that of individuals under the age of 65. The number of individuals 85 years and older who have even greater health needs and who are major consumers of health services, during that same time is expected to increase 115% (Canadian Policy Research Networks, 1997). A significant proportion of these individuals will be elderly women living alone. Many health professionals are questioning the community health system's "readiness" to cope with this influx of frailer, older individuals with multiple and complex health problems. Much of the research to date, especially community development and community building initiatives, has focused on healthy, active and independent elderly individuals living in the community (Kretzman & McKnight, 1993; O'Hagan, 1995). There has been little emphasis on community members who are over the age of 75, who are much more dependent, have a greater number of health problems and who are among the heaviest users of health services. Much research and planning, now and in the future, is needed to determine whether existing community development approaches are feasible when working with communities of these very old individuals. Strategies are needed that will help the frailest members of our society remain in their homes and communities for as long as possible.

Current Health Care Tends and the Role of Community Development in Health Care

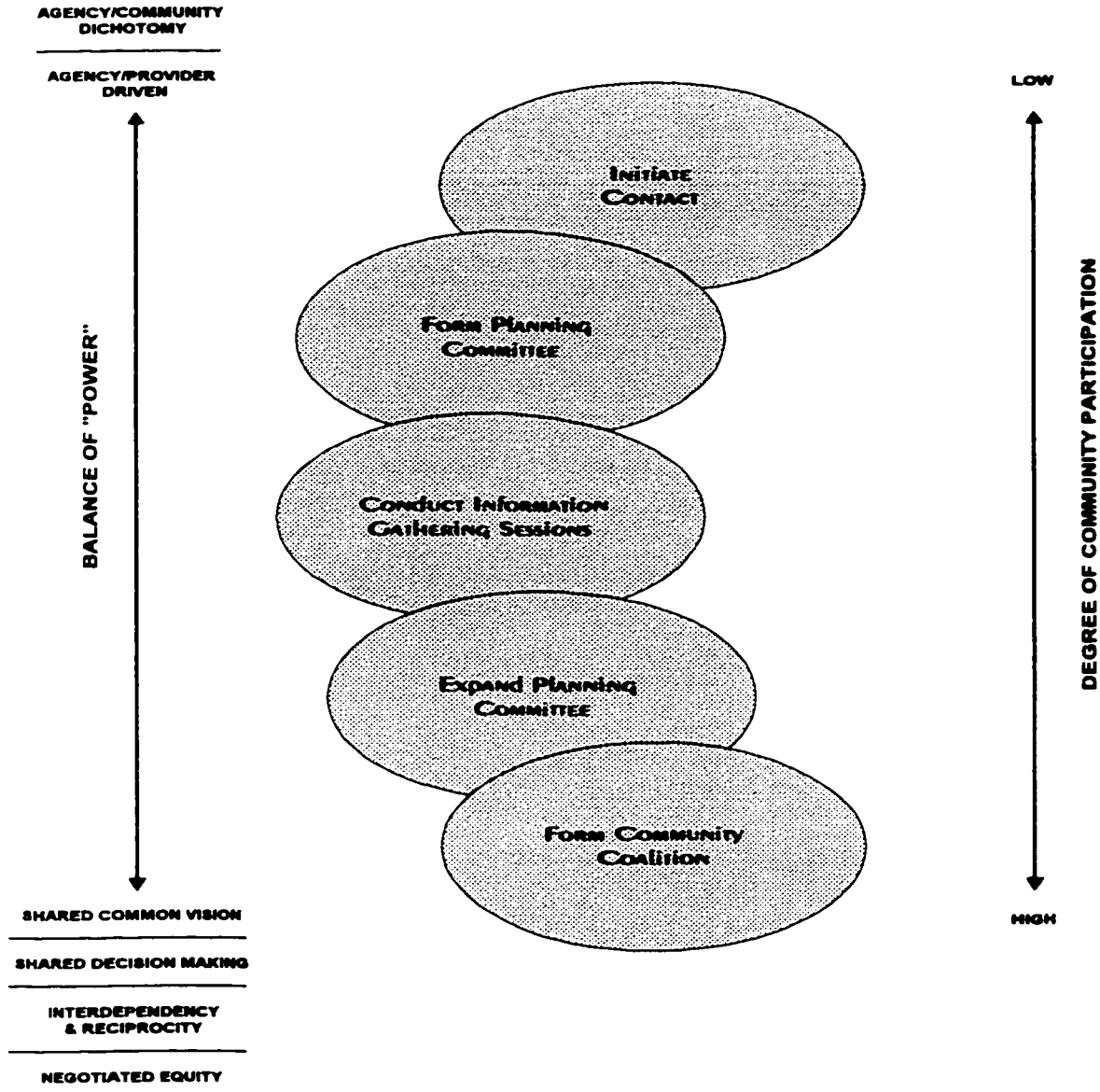
Along with the challenges of dealing with a steadily aging population, the Canadian health care system has been struggling to cope with ongoing funding constraints and decreasing health care resources. This situation has led to major changes in the delivery of health care services. The most notable changes include an increased emphasis on: (1) *community* health services and supports (Archer & Hebel, 1996; Canadian Policy Research Networks, 1997; Collins, 1991; Courtney, 1995; Health Services Restructuring Commission, 1997; Ontario Ministry of Health, 1993a, 1993b; Thames Valley District Health Council, 1996); and (2) community mobilization and collaboration around health issues, with a particular emphasis on *self-help models of community development* (Feigherty & Rogers, 1990; Green & Higgins, 1995; Kretzman & McKnight, 1993; Martin, Bouchard, Butler, Keddy, Metcalfe, Sommer & Hampton, 1996; O'Hagan, 1995; Shields, 1997; Shiell & Hawe, 1996; Wolnik, 1996). These "self-help" approaches encourage individuals and communities to become actively involved in, and share responsibility for, the planning and provision of their own health services.

While community mobilization and collective action by communities around health issues is a growing trend, there are many gaps in current community development knowledge. For example, documentation on the feasibility of community development approaches with communities of very old individuals with complex health conditions is sparse. Likewise, evaluation approaches to determine the success (or lack thereof) of community projects and the sustainability of health-related community development initiatives vary greatly. Personal experience with a variety of existing community development projects confirms that current

community development evaluation practices range from no evaluations being conducted, to anecdotal reports of project benefits, to simply tracking the numbers of individuals involved without evaluating the *collective capacity of a community* to identify and mobilize the resources necessary to resolve their own issues. Another major criticism is that the majority of existing community mobilization projects typically have a singular focus. That is, they use either one of two approaches: (1) a true community development approach which fosters self-determined needs and action driven by a community; or (2) a "community-based" approach where priorities and action are externally determined. It has been argued that community action that involves a balance of these two approaches, the "co*mmunity-systems approach*" (Figures 1.1 and 1.2), is a more feasible approach to use, especially for health-related community development projects (Shields, 1997). However, few existing health projects formally use this conceptual framework. The *community-systems approach* (Shields, 1997) involves both the community and formal health system early on in planned community change processes. This approach has been identified as crucial to overcome identified barriers and to ensure the sustainability of health-related community capacity building initiatives. For example, Shields suggests there is only so much a community can do to mobilize and strengthen it's resources to bring about desired change before eventually encountering roadblocks such as organizational procedures or policies that severely hinder progress. For community action efforts to last, it is important to create an environment, from the outset, that is conducive and open to change at all levels. This requires both "health systems" and "communities" to work together, hand in hand, to collectively identify barriers and mutually determine suitable action throughout the entire planned change process. Otherwise, it has

Figure 1.1

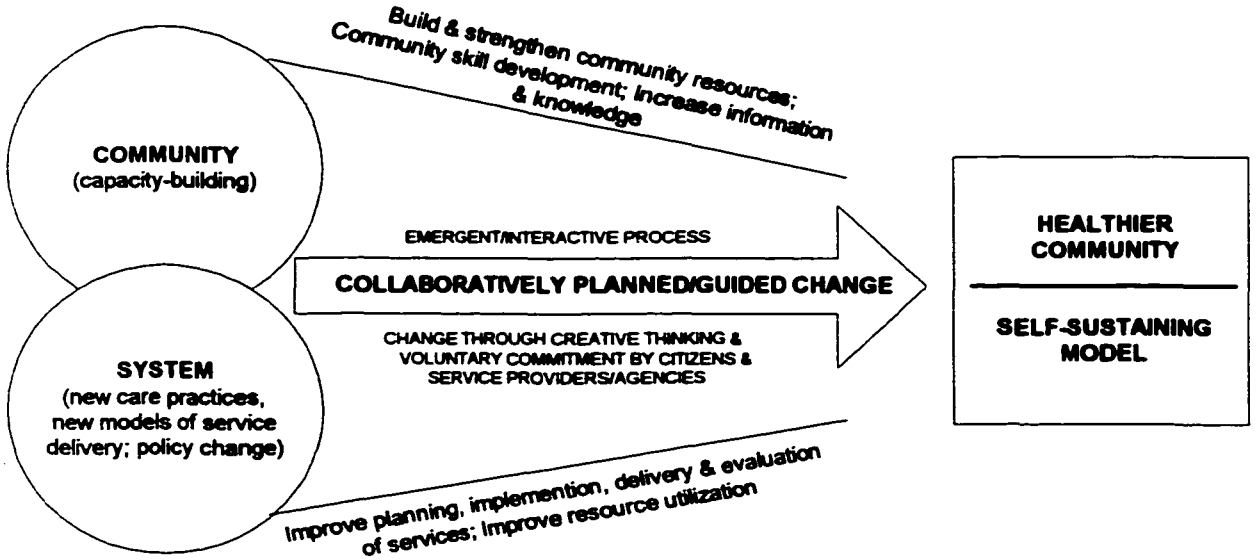
The Key Components and Processes of Community Action



Modified from: "The Path to Community Action" framework, Community Health Promotion in Action, Ontario Ministry of Health, Toronto, Canada.

Figure 1.2

The Community Systems Approach to Planned Social Change



been argued, the sustainability of projects may be compromised (Shields, 1997). Checkoway (1995) in his work on strategies of community change and empowerment identifies "citizen participation" as one of the most popular approaches used to facilitate change today. He concurs that if there is commitment to the sharing of decision-making and the transfer of "power" and control, from agencies and professionals facilitating the change to the communities involved, this approach can be very effective. Checkoway, however, goes on to argue that "true" commitment to shared decision-making and the transfer of control and "power" is *not typical* among many of the current public participation initiatives undertaken. He argues that often community participation is used for other reasons such as gathering information, and not to develop "*true*" collaborative partnerships between communities and agencies. Checkoway points out that many of the community development initiatives today do not result in the transfer of "power" and control to communities:

> ". . . some agencies favor participation that is not disruptive of program management, and oppose participation that results in citizen control over key aspects of programs. They thus favor "safe" methods that provide information without transfer of power to the community."
>
> (Checkoway, 1995, p. 10)

While there is little evidence of community development projects involving public citizens, in *broad-based health planning*, in general, there is substantial documentation of community mobilization efforts around *single* health issues. For example, recently researchers have examined community involvement in specific health prevention and awareness programs such as HIV/AIDS prevention (Parker, 1996; Person & Cotton, 1996; Gillies, 1994; Katz, 1997), smoking cessation (Ellis, Reed & Scheider, 1995; Rogers, Feighery, Tencati, Butler & Weiner, 1995; Thompson, Wallack, Lichtenstein & Pechacek, 1990), alcohol and drug

awareness (Holden, 1994; Johnson, Bryant, Strader, Bucholtz, 1996; Manger, Hawkins, Hagerty & Catalano, 1992), and heart health awareness (Herbert & White, 1996; Weston, Ray, Landers & Vaccaro, 1992). Also, some research has been reported on related community mobilization initiatives, for example, building integrated community recreation and leisure opportunities for individuals with disabilities (Pedlar, 1996) and linking community action participation to empowerment (Arai, 1996; Collins, 1991; Eisen, 1994; Lloyd, 1991; McComas & Carswell, 1994). Few studies were found, however, that have attempted to examine the potential of elderly citizens or their communities to take more control over, and share responsibility for, the planning and provision of their own health care services. For example, few studies to date have investigated the processes involved in a community collectively determining the types of services it needs or wants, how these services could best be implemented, and by whom. Even fewer studies were found, that specifically examine the mobilization efforts of communities with a high concentration of very old individuals with complex health problems, or the ability or willingness of these frailer, older community members to take greater responsibility for their own health. These are important considerations given current trends and health service utilization patterns of community-dwelling elderly.

Health Care, Health Service Utilization and the Elderly

Elderly individuals are major consumers of health services. Furthermore, demographic trends support a continued increase in the numbers of community-dwelling elderly, as well as an increase in the consumption of health care services by elderly individuals (Arnold, 1991; Kemp, Brummel-Smith & Ramsdell, 1990; Salmoni, Sahai, Heard, Pong & Lewko, 1996; The

National Advisory Council on Aging, 1993). The major causes of death in the elderly have been identified as cardiovascular diseases, cancer, lung disease and accidents (Havlik & Rosenberg, 1992). The biggest cause of "dysfunction" in the elderly has been identified as arthritis (Fried & Wallace, 1992). It is reported that the elderly, in particular those aged 75 years and older, have different patterns of health service utilization than younger individuals. Moreover, it is reported that assistance with activities of daily living such as personal care, housework and meal preparation is increasingly required with advancing age. Support provided in these particular areas has been identified as possibly delaying or preventing premature institutionalization of frail elderly who otherwise might have little capacity to manage. It is also reported that these services are most often informally provided by family, friends or relatives of the elderly, not the formal health system (Mack, Salmoni, Viverais-Dressler, Porter & Garg, 1997; The National Advisory Council on Aging, 1997). While currently there may be cost savings to the health care system by this informally provided care within communities, the longer term implications of this approach must also be considered. For example, Salmoni, Sahai, Heard, Pong and Lewko (1996) argue that while these informal care and supports in the community may save the health care system money in the short term, they may in fact end up costing the health system more over the long term if the added strain of providing care to someone compromises the health of family members, friends or other elderly individuals providing this care. Therefore, sharing the responsibility of providing this care and support among as many people as possible (e.g., family; friends; neighbours; etc.) is very important.

With communities of elderly persons, not only mobilization but also stabilization and

support of frailer, older individuals, are important considerations to prevent a downward spiral of ability, and subsequently a potentially costly impact on an already taxed health care system. While many argue that there is a need for participatory planning and research with the elderly around their health service needs (O'Hagan, 1995; McWilliam, 1997; The National Advisory Council on Aging, 1997; Wolnick, 1994), demonstration of the benefits of community mobilization efforts with communities of elderly individuals, and the impact of these efforts on the planning and delivery of formal system-provided health services remains to be established. Two local unpublished studies, the West Elgin Seniors' Project (O'Hagan, 1995) and the Wellness Pilot Project (Wolnick, 1994) utilized a community mobilization or "capacities" approach in attempting to identify health needs of elderly individuals. O'Hagan (1995) identified strengthening community resources and new supportive housing alternatives as project goals which would, it was hoped, lead to improved quality of life for community elderly. Wolnick (1994) outlines increased control, decision-making and independence of the elderly, better co-ordinated service delivery, increased satisfaction with health services received, and increased quality of life of health service providers as goals. In this second study, it was reported that positive outcomes included changes in the way certain health services were delivered and "improved quality of work life" for health service providers. In both studies, it was found that the elderly were able to contribute to the improvement of conditions in their communities. Each of these researchers, however, recognized the limitations of their studies and subsequent difficulties with generalizability. The former study involved only very well and active elderly, those with greater and more complex health needs did not participate and therefore were not represented; the latter experienced difficulties with

small numbers of participants, procedural difficulties and did not examine collaboration among health agencies. Nevertheless, the elderly citizens involved in both studies expressed interest in, and satisfaction with, the community mobilization approach used and believed they benefitted from participation in the projects. Both researchers recommended that: (1) the health care system better recognize the potential contribution of elderly individuals in addressing their health-related needs; and (2) more opportunities be provided for elderly individuals to participate in health initiatives related to their needs. These findings are consistent with reports issued by the Seniors' Independence Research Program conducted by the Centre for Studies in Family Medicine, University of Western Ontario (McWilliam, 1997a, 1997b), as well as the Integrated Report and Seniors' Task Group Report disseminated by the Call to Action Project for southwestern Ontario (Call to Action Project, 1997a, 1997b). These projects examined constraints and enhancers of seniors' independence, health practice issues, program and policy issues, and also reinforce the need for consumer involvement in health research, planning and evaluation. Similarly, the outcomes of the Seniors' Independence Research Project Consensus Conference (S.I.R.P., 1998) highlight the importance of involving all community partners in health planning and particularly emphasize the importance of teaching health professionals how to ensure *equally* shared decision-making and control with community members in health service planning and delivery. Priority actions voted upon at this consensus conference include, among other things, putting in place mechanisms that (1) ensure active participation by seniors in health planning, service delivery, evaluation and policy development; (2) allow health initiatives to be senior-driven; (3) encourage a greater level of neighbourhood-based volunteer involvement in health planning

and provision; and (4) build "true" relationships and partnerships with seniors rather than the "periphery" involvement identified by so many elderly individuals in their current working relationships with health professionals. While opportunities for participation, and examining *how* to build participation and collaboration by the elderly is important, it is also equally critical to examine *who* participates in voluntary community action and why.

Planned or Guided Change and Societal Guidance Theory

Consistent with the community systems approach, societal guidance theory (Etzioni, 1991) outlines an interactive process in which both the preferences of a community *and* the preferences of the system (agency or organization) result in negotiated and changing consensus that drive the change process. Societal guidance theory places particular emphasis on factors impacting the mobilization and action capacities of communities. It examines community members' involvement in planning social change and the factors influencing the change process (e.g., power; resistance; communication; decision-making strategies at critical points; knowledge; etc.). Etzioni argues that external organizations attempting to initiate change (e.g., public health agencies) are often hierarchical in nature, and bring with them issues of "power" and control that set into motion community "resistance" factors. Critical factors influencing the extent to which a community is "guidable" are: (1) the relationship between the community and the external body initiating change; (2) the degree to which a community participates in goal setting and action planning; and (3) the degree to which the priorities or goals of the community are compatible with those of the organization initiating change. A key concept in this theory is the "consensus forming process" which is achieved through increased communication and information. This process encourages voluntary

community participation in change and action planning and a greater focus on building consensus, thus relying less on the use of "power" and control. This collaboration in turn impacts the level of community resistance and the external agency's capacity to guide change. Furthermore, this theory also emphasizes that detailed, systematic planning for change is a complex and demanding process that requires a very high ability on the part of the individuals involved to collect, process and evaluate information, and to choose alternative courses of action. Etzioni argues that it is important to tailor decision-making strategies to the intellectual capabilities of any given community. He also argues that it is important to ensure that the approaches used are compatible with community members' level of education and skill, and that approaches are adaptable to changing circumstances.

The capacity building approach and concept of broad-based, multi-level collaboration also have proven benefits in other professional areas. For example, Senge (1990) points out the value and importance of the concepts of collaboration and empowerment in achieving long-term, competitive advantages in international business. Senge pioneered and applied a similar collaborative concept (to the community systems approach) which he calls "the learning organization". This concept encourages individuals to work together in a sustained effort to bring about innovative organizational change within, and among, major international business corporations. Consistent with the community systems approach, Senge's approach builds trust and enhances organizational capacity by: (1) building employee knowledge and skills; (2) linking individual aspirations with company interests so that employees move beyond working for self-interest to working for a broader, collective purpose; (3) involving employees as active participants in creating the future of their organization; (4) moving "top-

down" decision making to shared decision making at a more local, front-line level; and (5) fostering feelings of "connectedness" and commitment (instead of compliance) among individuals and their organizations. Integral to building "learning organizations", according to Senge (1990) are the concepts of "systems thinking", "personal mastery", "participative and reflective openness" and the building of shared visions. Senge's approach has resulted in extraordinary successes for numerous high-profile international corporations and confirms the potential of capacity building across a variety of diverse settings and sectors of society.

Building community capacity around health issues depends very much on both individual and collective action. Many factors influence an individual's willingness or ability to participate in voluntary health-related community action. The theoretical frameworks in Chapter II help to clarify why some elderly individuals become involved in health voluntarism, while others do not.

The Elderly Person as a Volunteer in Health Programs

Applying the concept of community mobilization in a predominantly elderly population presents somewhat of a challenge. Not only are elderly individuals faced with the normal physiological decline that occurs with increasing age (e.g., increased health problems; reduced functional ability; reduced ability to cope with stressful events; etc.), but also with numerous additional losses imposed by society such as loss of employment, loss of one's role in society and reduced income (Birren & Schaie, 1977). During a time in life when psychological stresses are high, biological changes coupled with negative life events often lead to the inability of elderly individuals to cope. Issues of control and adaptability have been identified as critical for successful adjustment of the elderly (Abeles, 1991; Carstensen,

Hanson & Freund, 1995; Cavanaugh, 1990; Lawton, 1972). Lawton and Nahemows' Competence and Environmental Press Theory (1973) suggests that those individuals who experience greater losses or decline will be less able to cope with environmental factors. Pastalam's Loss-Continuum Concept (1982) suggests that growing older is associated with a series of losses that limits one's level of engagement in society. Consistent with these two theories, is Baltes (1988) model of selective dependency which suggests that with increasing age and biological vulnerability elderly individuals are forced to reduce their involvement in certain activities so that they may maximize performance in others. For example, those individuals who have greater personal and self-care needs (which are required for everyday living) will, out of necessity, be unable to participate fully in other community or societal activities (Baltes, Mayr, Borchelt, Maas & Wilms, 1993). Whether elderly individuals with a greater number of health problems are able and willing to become involved in taking more responsibility for their health needs to be examined. Maintaining capacity in an aging community where the health of even the most active and involved members is somewhat precarious will be an ongoing challenge for researchers, health professionals and community planners. A system of advocacy by "healthier" older community members on behalf of their weaker neighbours, may be needed. The frail, older individual, for example, may have an external locus of control, while the locus of control for the community remains internal. For example, the problems experienced by frail elderly individuals are often seen as problems for the health-care system to solve. Responsibility for the care of frail elderly individuals is usually abdicated to the health care system, thus the locus of control for frailer individuals is not only external to themselves, but external to the community as well.

There is much that can be done from both: (1) a longer-term "futuristic approach", for example, where the health of a community in the future can be enhanced through the early provision of prevention and health promotion programs; and (2) a shorter more immediate "intervention approach" such as rehabilitation, providing adaptive equipment, or other supports to optimize the health, functional ability, independence and quality of life of elderly individuals living in the community. For example, poor health of elderly individuals is caused by both natural physiological decline associated with the aging process, and diseases not normally associated with the aging process such as heart attacks, stroke, cancer, and so on. The boundaries between these two causes of impaired health in the elderly are often indistinct. Reversing dysfunction and maximizing the health and functional ability of elderly individuals is traditionally done by: (1) educating and training elderly individuals to compensate for their physiological loss; (2) identifying the quality of life issues important to the elderly individual; (3) examining what medical and functional issues are getting in the way of the individual being able to live a meaningful and quality life (e.g., mobility; ability to feed one's self; ability to prepare meals; ability to carry out one's personal care such as dressing and bathing one's self; etc.); and (4) providing the necessary services and supports to optimize functioning in the areas the individual has identified as being important to them. Support in these areas (or lack thereof) has been found to influence the broader well-being of elderly individuals, and the perceptions they have about their health. The health support services required by elderly individuals on a daily basis such as house cleaning, meal preparation, personal care and assistance with shopping, are also the services that are becoming increasingly difficult for the health care system to provide. Elderly individuals, themselves, have identified the ability to

carry out day-to-day activities, freedom of choice, and the ability to be involved in those things that are personally meaningful, as being a priority to help them remain in their own homes and living in the community for as long as possible (Canadian Policy Research Networks, 1997; Mack, Salmoni, Viverais-Dressler, Porter & Garg, 1997).

While the aging process itself is not reversible, there are many factors in the lives of elderly individuals, which with the appropriate intervention and supports can optimize the health and functional ability of elderly individuals. From a community development context, it is important to examine both the "non-modifiable" background characteristics of elderly individuals that cannot be changed such as age, socio-economic status, recent life changes or one's personality characteristics over which the individuals themselves and health professionals have no control. Likewise, it is important to examine the "modifiable" factors; those factors compromising the health and functional ability of elderly individuals that are receptive to change by the individual themselves, by others such as friends, family members and neighbours, and through the intervention of health professionals and community planners. There are several key factors that have been consistently identified by other researchers as influencing volunteer behaviour. These factors include age, education, income, health, social supports, the environment within which one lives, and one's personality (Chavis & Wandersman, 1990; Pearce, 1993; Perkinson, 1992), and recent life changes (Wan & Odell, 1983). However, the majority of these studies have been conducted with well, middle-aged adults. Little research has been done to examine the predictors of volunteer behaviour for very elderly individuals. No studies were found that examined the volunteer behaviour of elderly individuals in a health-related community development context.

Statement of the Problem

The health care system is increasingly unable to provide all the required health care services, and the responsibility for one's own health needs is increasingly being pushed on to the individual themselves. The areas of health service provision being "cut" as part of current health care reforms and health care restructuring, are the areas of "supportive health services" where others can often help. For example, already the Community Care Access Centres (CCACs) across Ontario have greatly limited clients rights to homemaking services and are directing individuals to look to their own resources to fill these needs (i.e., private, self-arranged services and supports). This means that elderly individuals are increasingly required to pay privately for services, or to call on family members or friends for assistance. The challenge for elderly individuals is twofold. First, elderly individuals often do not have the resources (either financial or social) to draw on to put these supports in place. Second, elderly individuals often do not have the capabilities to organize their own health and safety support systems. Added to these challenges is the fact that "extended families" in today's society are limited. Sons and daughters of elderly individuals often work full-time, have families of their own and are too busy with their own lives to take on the added responsibility of caring for an aging parent. Thus, the question becomes: If the health care system can no longer provide the required health services to the fastest growing segment of our population with the greatest health needs, and one's family or relatives can no longer be counted on for assistance, where does one turn for help? A reasonable alternative would be to look at the community within which one lives and to explore whether healthier and more active community members are able and willing to accept some of the responsibility for helping their

frailer neighbours. There is incentive for "younger" elderly individuals to develop a community health support system as they, themselves, are only "one step" away from possibly needing this support system and the help of their neighbours in the very near future. Thus it has become increasingly important to examine the willingness of elderly community members to take responsibility for their own health and their willingness to help their neighbours. In particular it is important to know: (1) whether very elderly individuals are able and willing to become involve in their health planning and in providing health services and supports to others; and (2) what the factors are that predict, and help us better understand why elderly individuals become involved.

The present study will examine why elderly individuals do or do not become involved in their own health planning and in supporting the health needs of others in the community within which they live. This study is part of a broader 4-year study entitled: *"Building and Evaluating a Self-Sustaining Community System of Health Support for the Elderly: The Cherryhill Community Project"* currently being conducted in London, Ontario, Canada (Appendix A).

Purpose of the Study

Although numerous variables (e.g., age; socio-economic status; etc.) have been shown to impact on individual behaviour, this study has an applied community development focus and as such will be delimited to an examination of factors in elderly people's lives which have an impact on health-related volunteer behaviour and which they and others can have some influence over. Specifically, this study will: (1) identify predictors of volunteer behaviour of *elderly* individuals and identify the extent to which elderly individuals become involved in the

planning and provision of their own health services; (2) examine the interaction between those factors which can be modified through community development initiatives and other "fixed" factors which previous research has suggested have a significant impact on volunteer behaviour (e.g., age; socio-economic status; gender; life changes; etc.); and (3) examine whether health service utilization patterns of elderly individuals are negatively related to health voluntarism.

Criteria for Inclusion of Variables in Analyses

This study is being conducted in an applied community development context and is intended to advise practice, therefore:

(1) the primary independent variables will be those over which intervention might have some influence and which previous research has suggested have a significant influence on volunteer behaviour. These primary variables will include health, functional ability, well-being, activity level, social resources and satisfaction with environmental conditions. These terms are defined in Appendix B.

(2) additional empirically-based, "non-modifiable" variables will be examined to determine their effect on health-related volunteer behaviour. These background variables will include age, socio-economic status, life changes, personality and past as well as current volunteer experiences.

Research Questions

To address the central issues of prediction of health voluntarism and volunteer leadership of elderly individuals, the following research questions are posed:

1. How do the "modifiable" variables of health, functional ability, well-being, activity

level, social resources and satisfaction with physical and social environmental conditions influence (1) commitment to health voluntarism and (2) volunteer leadership (e.g., committee chair; action team leader; health service provider; trained community responder; etc.) in health-related community action?

2. Are the relationships being examined for research question 1 moderated by "non-modifiable" variables such as age, socio-demographic and personality variables?

3. Are the same factors involved in predicting health voluntarism and volunteer leadership, and health and health service utilization among elderly individuals?

The predictors of health and health service utilization of elderly individuals living in the community were examined using data from the initial Cherryhill Community Project community survey (n = 1231) (Appendix C). The influence of the primary "modifiable" variables on health voluntarism and volunteer leadership, and the possible moderating effect of the "non-modifiable" age, socio-demographic and personality variables on health-related volunteer behaviour were examined using data from the Health Voluntarism Survey (n = 181) (Appendix D). The moderating effect of "non-modifiable" variables was important to examine to ensure that the "non-modifiable" characteristics of study participants (e.g., age; etc.) did not modify or mask the influence of the "modifiable" variables on the dependent variables.

Chapter II will summarize findings by other researchers studying elderly individuals in a variety of situations, and will outline the factors found to determine volunteer involvement. Specifically, Chapter II will: (1) examine literature in the areas of health and health service utilization of elderly individuals, theories of voluntarism and individual

empowerment, personality, and well-being; and (2) examine the influence of these factors on the volunteer behaviour of elderly individuals.

CHAPTER II

THE INFLUENCE OF INDIVIDUAL DIFFERENCES ON VOLUNTARY COMMUNITY ACTION

A substantial amount of evidence generated over the years (across a variety of disciplines including gerontology, health, community and social psychology) provides a useful framework for learning more about the health, psychological well-being and health service utilization patterns of elderly individuals, as well as their patterns of volunteer behaviour. It is agreed, in general, that individuals who are active, outgoing, self-confident and in good health, with good social connections are more likely to voluntarily take responsibility for their own health and the health of their neighbours. For example, major known variables have repeatedly been demonstrated as influencing volunteer behaviour. These variables include social resources, perceived health, socioeconomic status and age (e.g., Chavis & Wandersman, 1990; Heshka, 1983; Ishii-Kuntz, 1990; Ozawa & Morrow-Howell, 1988; Pearce, 1983 & 1993; Perkinson, 1992; etc.), environmental and situational factors (e.g., Chavis & Wandersman, 1990; Golant, 1984; Heshka, 1983; Smith, 1983; etc.), personality (e.g., Chavis & Wandersman, 1990; Pearce, 1993; Perkinson, 1992; Shoda, Mischel & Wright; etc.), life changes (e.g., Wan & Odell, 1983) and length of time living in a particular community (e.g., Golant, 1984). These key variables are consistent with variables repeatedly

identified as determinants of the health, well-being and health service utilization patterns of elderly individuals (see Tables 2.1 and 2.2). While the core variables influencing volunteer behaviour and the involvement patterns of well, middle-aged adults are relatively well known, the inter-relationships of these variables, with (1) predictors of health and health service utilization of *elderly* individuals, and (2) the unique characteristics associated with advancing age, increasing dependency, increasing health problems and changing life situations of elderly individuals living in the community remain relatively unexplored.

Health and health service utilization are key factors to consider when helping frail older individuals take more control over their own health. Health has been shown as a critical variable influencing both health service utilization and volunteer behaviour. From a community development perspective it is important to examine, in detail, modifiable factors such as health, functional ability and environmental supports over which community development initiatives may have some influence; factors which have been shown to subsequently impact health service utilization and health voluntarism. By examining intra- and inter-personal or structural factors which constrain or enhance the volunteer participation of frail, older adults and by putting in place necessary social and physical supports to enhance control and independence, it may be possible to maximize volunteer involvement in health planning and provision. This in turn, may strengthen the informal health supports of a community and hopefully lead to the improved health of community members over time. The concepts of health and health service utilization, coupled with theories of voluntarism, individual and community empowerment and the concepts of individualism and communitarianism will be examined in more detail in this chapter to help better understand

Table 2.1

Summary of Key Variables Influencing General Volunteer Behaviour and the Health, Well-Being and Health Service Utilization Patterns of Elderly Individuals

Construct	Predictor Variables	References
Vounteer Behaviour	Health	Ishii-Kuntz, 1990; Ozawa, Morrow & Howell, 1988
	Social Resources	Chavis & Wandersman, 1990; Pearce, 1993; Wan & Odell, 1983
	Activity Level	Wan & Odell, 1983
	Environmental & Situational Factors	Chavis & Wandersman, 1990; Golant, 1984; Heshka, 1983; Smith, 1983
	Personality Traits & Disposition	Chavis & Wandersman, 1990; Pearce, 1993; Perkinson, 1992; Shoda, Mischel & Wright, 1993
	Socioeconomic Status	Ozawa, Morrow & Howell, 1988; Pearce, 1993; Wan & Odell, 1983
	Age	Ishii-Kuntz, 1990; Pearce, 1993; Perkinson, 1992
	Life Changes	Wan & Odell, 1983
	Gender	Ishii-Kuntz, 1990; Perkinson, 1992
	Previous Volunteer Experience	Perkinson, 1992

Table 2.1

Continued

Construct	Predictor Variables	References
Health	Functional Ability	Lindgren, Svardsudd & Tibbin, 1994
	Psychological Well-Being	DeForge, Sobal & Krick, 1989; Stolar, MacEntee & Hill, 1992; Struthers, Chippenfield & Perry, 1993
	Social Resources	Bienenfeld, Koenig, Larsen & Sherrill, 1995; Lindgren, Svardsudd & Tibbin, 1994
	Activity Level	DeCarlo, 1974; DeForge, Sobal & Krick, 1989; Ferrini & Ferrini, 1986; Lindgren, Svardsudd & Tibbin, 1994
	Environmental & Situational Factors	Wallerstein, 1992
	Personality Traits & Disposition	Abeles, 1992; Bienenfeld, Koenig, Larsen & Sherrill, 1995; Wallerstein, 1992; Scheier & Carver, 1987
	Socioeconomic Status	DeForge, Sobal & Krick, 1989
	Age	Arnold, 1992; Ferrini & Ferrini, 1986; France & Alpher, 1995; Gentile, 1992; Harper, 1992; Kane, Ouslander & Abrass, 1984; Kemp, Brummel-Smith & Ramsdell, 1990; Mulder,

Table 2.1

Continued

Construct	Predictor Variables	References
		1996; Rosenberg & Moore, 1997
Psychological Well-Being	Health	Arnold, 1992; Barresi, Ferraro & Hobey, 1984; Dorfman, 1995; Farquhar, 1995; Gentile, 1992; Mannell & Dupuis, 1996
	Functional Ability	Mannell & Dupuis, 1996; Osberg, McGinnis, DeJong & Seward, 1987
	Social Resources	Chappell, 1992; Farquhar, 1995; Graney, 1965; Lemon, Bengston & Peterson, 1972
	Activity Level	Bevil, O'Connor & Mattoon, 1993; Farquhar, 1995; Graney, 1965; Lawton, Moss & Duhamel, 1995; Mannell & Dupuis, 1996; Palmore & Kivett, 1977
	Personality Traits & Disposition	Abeles, 1992; Cohen-Mansfield, 1990
	Socioeconomic Status	Mannell & Dupuis, 1996; Osberg, McGinnis, DeJong & Seward, 1987
	Life Changes	Mannell & Dupuis, 1996

Table 2.1

Continued

Construct	Predictor Variables	References
Health Service Utilization	Health	Benjamin, 1992; Branch, Jettee, Evashwick, Polansky, Rowe & Diehr, 1981; Chappell & Blandford, 1987; Ory & Duncker, 1992; Slivinski, Fitch & Mosca, 1994; Wan & Odell, 1981
	Functional Ability	Benjamin, 1992; Branch, Jettee, Evashwick, Polansky, Rowe & Diehr, 1981; Chappell & Blandford, 1987; Ory & Duncker, 1992; Slivinski, Fitch & Mosca, 1994; Wan & Arling, 1983; Wan & Odell, 1981
	Social Resources	Benjamin, 1992; Branch, Jettee, Evashwick, Polansky, Rowe & Diehr, 1981; Chappell & Blandford, 1987; Hughes, 1992; Ory & Duncker, 1992; Slivinski, Fitch & Mosca, 1994; Wan & Odell, 1981
	Environmental & Situational Factors	Branch, Jettee, Evashwick, Polansky, Rowe & Diehr, 1981; Chappell & Blandford, 1987; Ory & Duncker, 1992; Slivinski, Fitch & Mosca, 1994; Wan & Odell, 1981

Table 2.1

Continued

Construct	Predictor Variables	References
	Personality Traits & Disposition	Branch, Jettee, Evashwick, Polansky, Rowe & Diehr, 1981; Chappell & Blandford, 1987; Ory & Duncker, 1992; Slivinski, Fitch & Mosca, 1994; Wan & Odell, 1981
	Socioeconomic Status	Branch, Jettee, Evashwick, Polansky, Rowe & Diehr, 1981; Chappell & Blandford, 1987; Ory & Duncker, 1992; Slivinski, Fitch & Mosca, 1994; Wan & Odell, 1981
	Age	Arnold, 1992; Benjamin, 1992; Berk & Bernstein, 1985; Hughes, 1992; Ishii-Kuntz, 1990; Kane, Ouslander & Abrass, 1994; Mulder, 1996; Ory & Duncker, 1992; Wolinsky, Mosley & Coe, 1986
	Knowledge of Health Service System	McCaslin, 1989

Table 2.2

Inter-Relationships of Key Variables Influencing Volunteer Behaviour, Health, Well-Being and Health Service Utilization Patterns

Constructs	Key Predictor Variables: Health	Functional Ability	Well-Being	Social Resources	Activity Level	Env. Factors	Personality Traits	SES	Age	Life Events	Gender	Past Volunteer Experience	Health Service Information
Volunteer Behaviour	X			X	X	X	X	X	X	X	X	X	
Health		X	X	X	X	X	X	X	X				
Psychological Well-Being	X	X		X	X		X	X		X			
Health Service Utilization	X	X		X		X	X	X	X				X

the influence of these factors in the context of a community development framework. Most importantly, this section will explore the unique factors required to mobilize a community of frailer older individuals who have multiple health concerns.

Individual versus Community Empowerment

While there is much discussion about "empowerment" as it relates to community action in the recent literature, "empowerment" tends to be a loosely and somewhat inconsistently used term (Eisen, 1994). It is both important, and necessary, to distinguish between the concepts of community empowerment and individual, psychological or personal empowerment (Chavis & Wanderman, 1990; Connelly, Keele, Kleinbeck, Schneider & Cobb, 1993; Eisen, 1994; Hawe, 1994; Wallerstein, 1992). The definition of empowerment has evolved over the years. Initially, Rappaport (1981) described empowerment as a process used "to enhance the possibilities of people to control their own lives" (p. 15). This definition was later broadened to describe empowerment as "a process by which people, organizations and communities gain mastery over their lives" (Rappaport, Swift & Hess, 1984, p. 3). It is now generally recognized that the concept of empowerment refers to a process whereby individuals, organizations or communities exert control over factors that influence their lives; a process that includes individual, psychological and/or collective growth (Connelly, Keele, Kleinbeck, Schneider & Cobb, 1993; Hawe, 1994; Rappaport, Swift & Hess, 1984; Zimmerman & Rappaport, 1988; Zimmerman, 1990).

Much of the current community mobilization literature focuses on community empowerment. This differs from individual empowerment, in that it is a *collective* process that facilitates social action and brings about change for large numbers of individuals in a

given geographic area (Eisen, 1994). Eisen (1994) in differentiating between empowerment concepts, in the context of community mobilization, argues "successful programs require community ownership and community ownership requires leadership and control by the target population" (p. 241). This would suggest that the *individual* is, and should be, at the very centre of community mobilization processes and that each individual plays an integral role in contributing to the success (or failure) of collective action within their community. It also lends support to the importance of examining first, and foremost, individual characteristics of citizens living in the community and the potential impact of these characteristics on voluntary participation at a broader and more complex community level. The added challenge of dealing with the declining health and increased dependency of individuals with advancing age requires community developers to pay particular attention to the unique needs of each individual, a requisite for successful and sustained voluntary community action in communities with high proportions of retired individuals.

Theories of Individual Empowerment

Many health-related studies, while not conducted in a community mobilization context, have investigated factors associated with individual empowerment and linked these characteristics to greater levels of participation and independence (e.g., Clark, 1989; Cusack, 1995; Feingold & Werby, 1990; McComas & Carswell, 1994; Perkinson, 1992). Likewise, the empowerment construct and factors such as locus of control, self-efficacy and self-determination have been well studied in conjunction with social psychology (e.g., Deci, 1975; Deci & Ryan, 1991), leisure studies (e.g., Iso-Ahola, 1980; Neulinger, 1974; Mannell & Kleiber, 1997; Searle & Mahon, 1991, 1993; Searle, Mahon, Iso-Ahola, Sdrolias & Van

Dyck, 1995) and gerontology (e.g., Abeles, 1991; Carstensen, Hanson & Freund, 1995). These constructs have been identified as particularly relevant for the elderly, many of whom due to increasing pathologies and multiple losses with advancing age, become increasingly dependent on others (i.e., have external loci of control). By drawing on major, relevant social psychological theories such as motivation theory (Deci, 1975; Harter, 1978; Maslow, 1943; White, 1959), self-determination theory (Deci & Ryan, 1985), self-efficacy theory (Bandura, 1977, 1986), locus of control theory (Rotter, 1966), learned helplessness (Seligman, 1975) activity theory (Havighurst & Albrecht, 1953) and continuity theory (Atchley, 1988), along with theories of voluntarism and applying these theories to community capacity building, it will be possible to gain a better understanding of why some elderly individuals participate in voluntary community action while others do not.

Motivation theory, for example, examines internal and external factors and the impact of these factors on individual behaviour. Motivation has been studied in a variety of ways. One very influential approach has been to conceptualize the construct of motivation as internal needs that drive or promote behaviours that will satisfy those needs. Maslow (1943) argues that once existing needs are met, individuals continually strive to reach their fullest potential (self-actualization). This is similar to the personal growth theory described by Mannell and Kleiber (1997). White (1959) and Harter (1978) suggest that all individuals have a need to feel competent, that this need motivates behaviour and that successful interaction with one's environment and the resulting feelings of pleasure are critical factors in this process. Likewise, Deci and Ryan (1985) link self-determination to intrinsic motivation, emphasizing the notions of control and choice. Self-efficacy theory (Bandura, 1977, 1986)

suggests that the perceived self-efficacy of an individual influences the individual's behaviour and directly impacts the effort the individual will expend and the length of time they will persist in a given activity. Key to this theory is a belief in personal abilities and mastery experiences. Learned helplessness theory (Seligman, 1975) suggests that if an individual believes a situation to be uncontrollable, feelings of helplessness will result. Similarly, if an individual believes that their actions will make no difference in a given situation, the likelihood of the individual following through with those actions will decrease. Learned helplessness has been associated with depression and this theory supports the importance of perceived control in the lives of individuals. Examining individual characteristics such as locus of control, self-efficacy, participation patterns, along with social and environmental influences are particularly relevant to frail, older individuals and will provide greater insight into how elderly individuals feel and why they behave the way they do. Similarly, by investigating the intrapersonal and interpersonal constraints experienced it may be possible, through community development and health promotion initiatives, to increase the involvement of frail, older adults in their own health planning and decision-making.

Empowerment has been defined as a process of enabling individuals, along with others in their community, to gain more control over their lives. A study conducted by Arai (1996) investigated the benefits of citizen participation in a municipal healthy communities project in rural southwestern Ontario. Arai's findings suggest a link between participation in community action (including level of participation) and enhanced feelings of empowerment by citizens involved. Other benefits reported by those involved included, among other things, increased opportunities for choice, decreased tension, decreased frustration and strengthened

social connectedness. While the age and other socio-demographic characteristics of study citizens were not reported, and while this particular healthy community's initiative focused not on health planning but rather a wide variety of shared community interests (e.g., community inclusion in municipal decision making; stream and environmental preservation; prevention of well water contamination; hiking trail development; etc.), Arai's findings nevertheless support the importance of individual participation in enhancing personal knowledge, skills and feelings of control, all issues particularly relevant to an aging population.

It is well recognized that there are many additional factors that must be taken into consideration when working with communities of older individuals and there are many questions about the possibilities of enabling communities comprised of *very old* individuals. From the perspective of elderly individuals, financial constraints in health care and community mobilization, Lloyd (1991) argues that with increasing numbers of older people who require greater health services and supports, developing collaborative partnerships may not be attainable.

> "A bottom-up approach which stresses the right of elderly individuals or consumers to services, to express their needs and have a say in the selection of services offered, to control their delivery and to protest when things go wrong is incompatible with the top-down approach with management assessing needs and deciding who is most needy, allocating accordingly scarce resources, rationed by limitation on funding, and adopting a professional stance before the dependent recipient of services."
>
> (Lloyd, 1991, p. 129)

Much of the existing literature reinforces that elderly individuals, particularly those with advancing age, become increasingly dependent upon others and that issues of control and

adaptability are critical for successful adjustment of the elderly (e.g., Abeles, 1991; Baltes, 1988; Baltes, Mayr, Borchelt, Maas & Wilms, 1993; Carstensen, Hanson & Freund, 1995; Lawton, 1972; Lawton & Nahemow, 1973; Pastalan, 1982; Shulz, Heckenhausen & O'Brien, 1994). Lloyd (1991) argues that "reciprocity" is an important factor to consider when working with elderly individuals in order to increase their control and independence. Without the ability to "give back" elderly individuals quickly "lose self respect and acknowledge their dependence".

> "Overriding all is the independence and control sought by the elderly individual which conflicts with the creation of dependency by all those offering care and support. Family members wish to show their love, neighbors their altruism; the elderly recipient wishes to establish a reciprocal relationship to mask the dependency so created."
>
> (Lloyd, 1991, p. 130)

Recognizing and creating opportunities for "giving back", based on individual capabilities, is particularly important for achieving successful and sustainable outcomes in community development initiatives in neighbourhoods of frailer, older individuals.

While general consensus supports the notion that community mobilization with elderly individuals presents many challenges, it is also agreed that workable partnerships are possible. The critical factor seems to be the *interaction between* elderly individuals and those providing health care services and the subsequent relationships established. To maximize individual control it is important to ensure individual input and involvement on an ongoing basis and to shift power relationships. Successful partnerships require a shift away from the traditional "top-down" role of the health worker as the "professional" or "expert" providing intervention *for* those with health-related needs. Rather, health workers must become resource people who share information and work *with* individuals to build on existing strengths, build

knowledge and skills, build awareness and confidence (of both individuals and their communities) and help elderly individuals believe that they do have the capacity to bring about change in their communities. Health professionals must recognize the unique situation of elderly individuals with advancing age and increasing health needs, and must take the added time and effort required to encourage "true" mutual sharing relationships based on individual capabilities (Clark, 1989; Labonte, 1989; Pedlar, 1996).

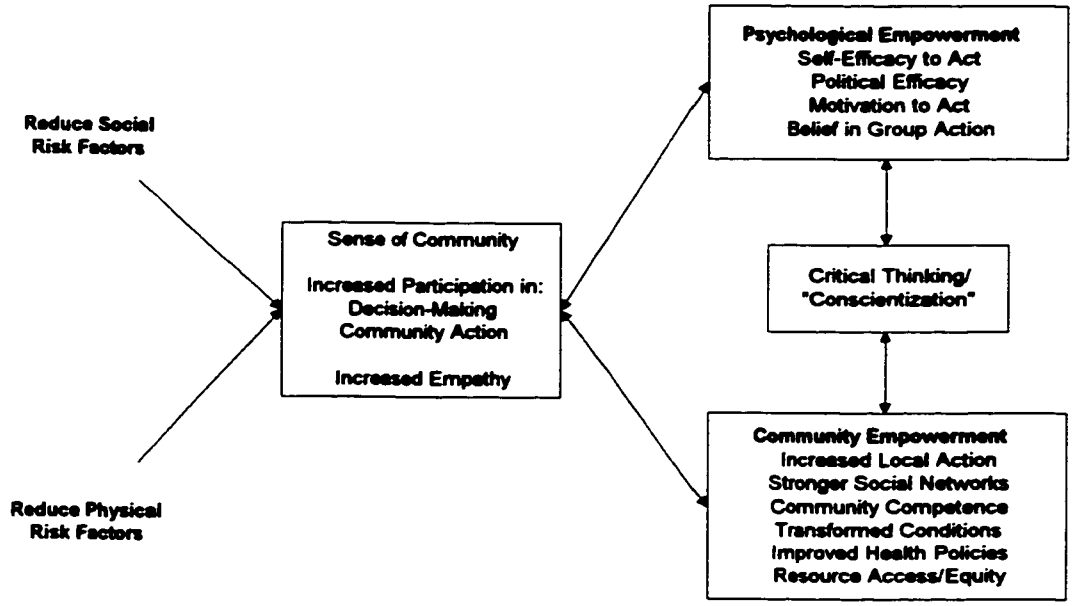
There are many strategies that may be employed to enhance an individual's sense of control. Clark (1989) applies the concept of empowerment to individuals with increasing and chronic health problems. He argues that while elderly individuals may not be able to control their disease or prognosis, they can learn different techniques to better deal with their conditions (e.g., environmental modification; pain control; equipment adaptation; etc.) from which they can then choose the best personal option suited to their lifestyle that allows them to remain as independent as possible. This enhances personal control and responsibility for decision-making of the elderly, and allows health professionals to share the necessary information and resources. Clark also supports the importance of information and knowledge as a vehicle for empowering the elderly. Clark further suggests that empowerment requires balance, both on the part of the elderly so that "each person represents a mixture of dependence and independence" (p. 277) with the individual deciding where the balance lies for maximum independence, as well as by health professionals (knowing when to provide freedom of choice and when to provide guidance). Likewise, Wallerstein (1992) supports empowerment as a strategy to promote health. She suggests that by examining and modifying environmental and physical influences within a community, individuals may gain a better

understanding of themselves, a sense of control and skills that will allow them to collectively mobilize resources to bring about change in their community (Figure 2.1).

The influence of individual-environment relationships on well-being (e.g., Barresi, Ferraro & Hobey, 1984; Clark, 1989; Mannell & Kleiber, 1997; Wallerstein, 1992) and volunteer behaviour (e.g., Chavis & Wandersman, 1990 Golant, 1984; Heshka, 1983; Pearce, 1993; Smith, 1983) is well documented. In the context of voluntarism, a number of specific physical and social environmental factors have been linked to higher rates of volunteering. In particular, social connectedness, one's sense of community, length of time lived in the community, knowledge of community resources, satisfaction with community resources, neighbours and safety, as well as frequency with which one leaves the home have all been shown to influence volunteer behaviour. The increasing importance of an individual's living environment with advancing age is also well documented (e.g., Kavanagh, 1990; Golant, 1984; Cohuna, 1982; Cohuna & Cohuna, 1983; Lawton, 1972; Lawton, 1982; Lawton & Nahemow, 1973; Pynoos & Regnier, 1991; Weiner, Brok & Snadowsky, 1987). Four widely used theories of person-environment interaction exist to help better understand the action of elderly individuals, particularly the actions of frailer, older individuals. For example, Lawton and Nahemows' (1973) competence and environmental press theory suggests that with advancing age, as health problems increase and functional ability decreases, individual actions become much more dependent upon external factors such as one's physical and social environment. Kahana's (1982) congruence model suggests that individuals vary in their personal needs and that environments differ in their ability to satisfy these unique needs. In order to optimize control and independence of elderly individuals it is important to match

Figure 2.1

Wallerstein's Model of Empowerment



individual needs with the most suitable environment that can meet these needs. The greater the "congruence" between the individual and their environment, the greater their well-being. Lazarus' theory of stress and coping (as cited by Lawton, 1977) suggests that individuals evaluate their situations and determine potential "threats" then engage coping mechanisms in response to these perceived "threats". An individual's social and physical environments have been identified as critical factors influencing how individuals perceive their situation. It has been argued that, in particular, the presence of social support systems may positively affect an individual's perception of their situation. Pastalam's (1982) loss-continuum concept argues that growing older is associated with a series of losses and increasing dependency that limit individuals' ability to participate fully in society. Thus, the home and immediate personal environment of the individual take on increased importance. Environmental factors, both physical and social, have been shown to enhance or constrain the actions of elderly individuals. Community and neighbourhood attributes, as well as the experiences of elderly individuals within their communities are important considerations potentially impacting health, health voluntarism and health service utilization that require further investigation and should not be overlooked.

Other researchers have investigated the concept of empowerment as it relates to individuals with mental health problems and physical disabilities. Connelly, Keele, Kleinbeck, Schneider and Cobb (1993), for example, examined the effects of increased participation in decision-making, in organizing a client-run mental health drop-in centre. These authors found that facilitating client involvement in decision-making is an ongoing process that requires clients to progress through specific "levels" of participation, such as intrapersonal

participation (i.e., participating; making choices) and interpersonal participation (i.e., supporting one another; sharing equal decision-making with staff). Benefits reported by clients sharing in the decision-making process included an increased sense of control and increased self-esteem. Some clients, however, also reported that they experienced greater stress or felt overloaded with the increased responsibilities of being involved in deciding what changes should be made in the way services are delivered.

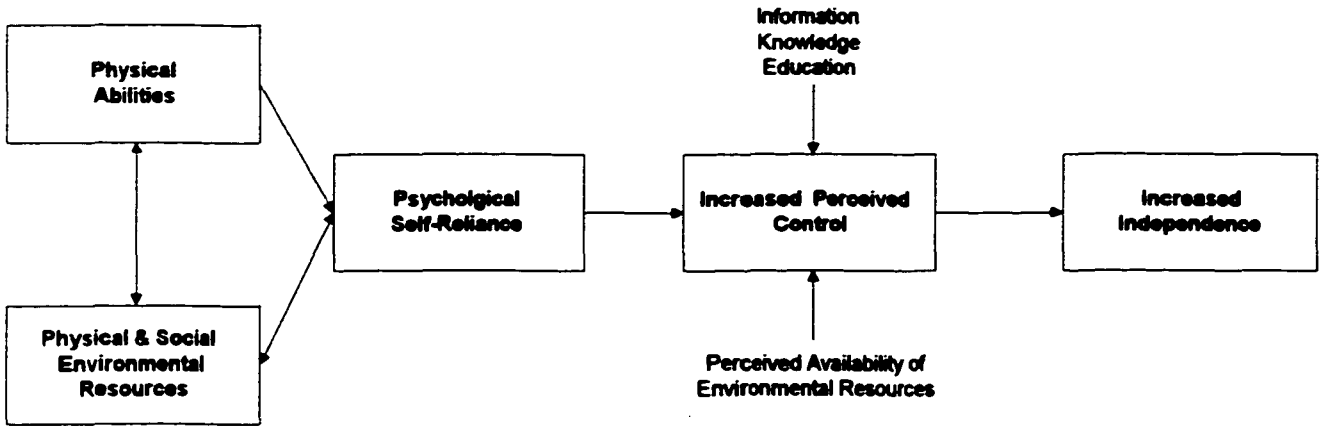
Nosek and Fuhrer (1992) in exploring determinants of independence in individuals with disabilities, identify four key components influencing independence. These factors include: (1) perceived control (operationalized as decision-making ability, self-control, control over one's environment, etc.); (2) physical functioning (operationalized as activities of daily living, self-care, mobility, etc.); (3) psychological self-reliance (operationalized through confidence, self-esteem, coping, etc.); and (4) environmental resources, including both physical and social resources as well as the perceived availability of these resources (p. 8). These authors also argue that the more limited an individual's physical function, the greater one's dependency on environmental resources; that the availability of resources lessens the importance of physical requirements and abilities; these authors stress the influence of information, knowledge and education on the perceived control of individuals with disabilities. Likewise, Nosek and Fuhrer (1992) found that an individual's confidence and self-esteem are influenced by environmental resources. These researchers, however, found that psychological abilities are often the driving force behind accessing the physical and social resources that can offset one's physical limitations. They identify perceived control as resulting from interaction with the other three components, physical functioning,

psychological self-reliance and environmental resources. The authors also identify perceived control as having a moderating effect on the successful and effective utilization of available physical and social resources to maximize independence (Figure 2.2).

Results of further testing by Nosek, Fuhrer and Howland (1992) revealed three profiles of independence. These include individuals who are "independently minded, less disabled", "independently minded, more disabled", and those who are "non-independently minded" individuals (p. 28). The authors argue that, when enhancing independence of individuals with disabilities, it is important to move beyond the traditional narrow focus limited to increasing physical and cognitive functioning, to include psychological and environmental factors which have been shown to significantly impact the quality of life of individuals. Another study examining the determinants of voluntary participation and the influence of environmental factors on participation, conducted by Chavis and Wandersman (1990), concluded that a "sense of community" (operationalized through social interaction among neighbours) is directly linked to, and significantly increases, individual voluntary participation. Moreover, these researchers demonstrated how, in turn, this participation fulfills the unique needs of individuals. "The stronger the sense of community, the more influence the members will feel they have on their immediate environment" (Chavis & Wandersman, 1990, p. 56). Chavis and Wandersman identify three key factors influencing individual voluntary participation in local initiatives: (1) perception of environment (operationalized as perceived qualities of neighbourhood, satisfaction, strengths, etc.); (2) social relations (operationalized as interaction among neighbours); and (3) perceived control and empowerment within the community (p. 56). Sense of community is identified as the

Figure 2.2

An Adaptation of Nosek and Fuhrer's Heuristic Model of Independence Among Individuals with Disabilities



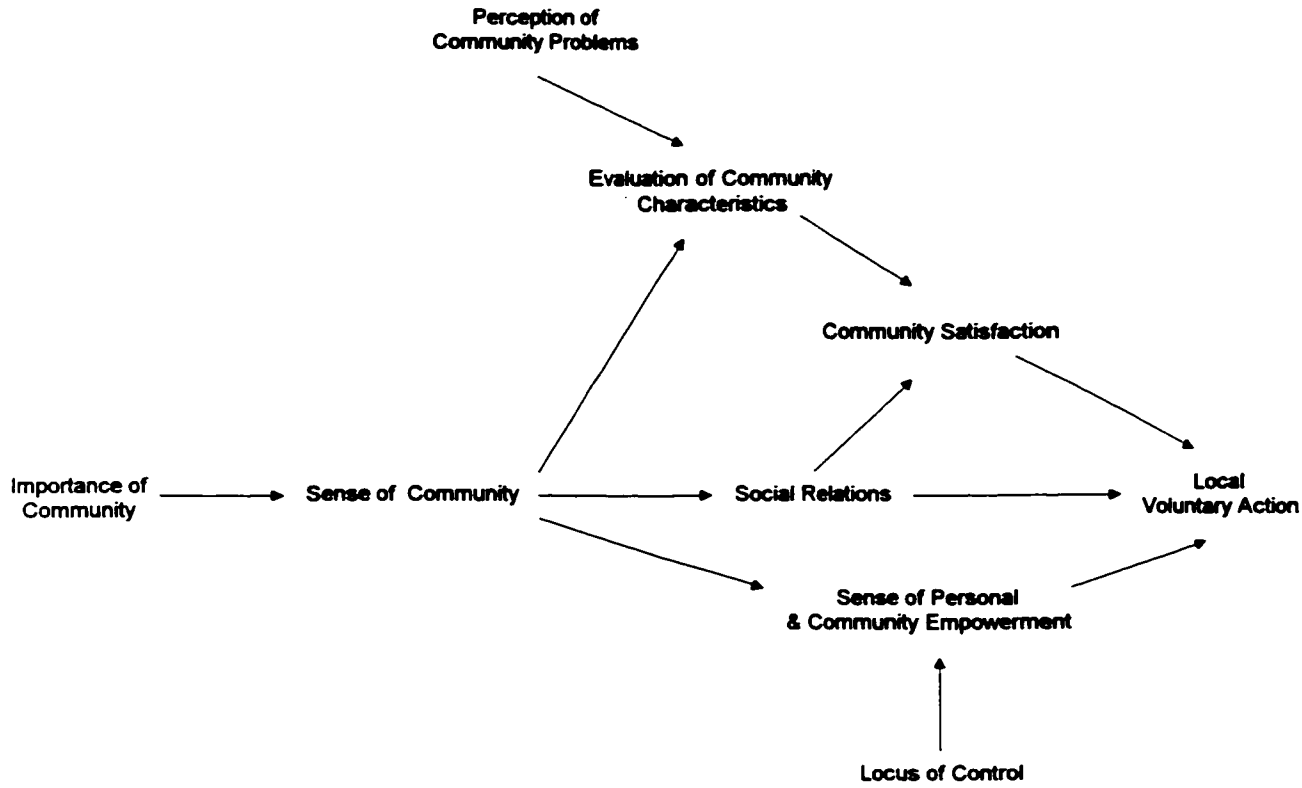
critical factor in mobilizing these three components (Figure 2.3).

Theories of Voluntarism

There are several theoretical frameworks that help us to better understand why individuals volunteer, how to identify potential volunteers, and what motivates individuals to continue volunteering. Reasons why individuals volunteer vary significantly. It is generally agreed however, that individuals who are better off financially are more likely to volunteer, as are women rather than men. Consistent with theoretical frameworks of volunteering (e.g., altruism; human capital theory; utility theory; etc.), predominant motives identified by volunteers across a variety of studies include: (1) the opportunity for social contact; (2) self-interests (e.g., opportunities to learn; recognition; personal growth; etc.); (3) interest in, and perceived importance of agency or project goals; (4) a desire to help others; and (5) the need to feel useful (Heshka, 1983; Meneghetti, 1995; Moore, 1985; Pearce, 1983, 1993). In the majority of studies humanitarian or altruistic motives tend to outweigh other reasons given, particularly for elderly and community volunteers. One exception to this was a study of elderly volunteers conducted by Perkinson (1992). Perkinson found that elderly individuals volunteered primarily for personal reasons such as keeping themselves busy, the need for belonging or replacing lost roles. Perkinson also identified individual skills and capabilities, and self-confidence as playing a key role in determining volunteer participation. She found that older and better educated volunteers, those belonging to the agency longest, individuals with previous volunteer experience and individuals who were personally encouraged to become involved were more likely to participate, as well as assume leadership roles and serve on volunteer committees. Surprisingly, she found that males (not females) and individuals in

Figure 2.3

The Chavis and Wandersman Model for Determinants of Local Action



"poorer health" were more apt to voluntarily participate in leadership roles. No explanation for this unexpected finding was provided.

Many researchers suggest that self-interest for volunteers may be under reported due to a social desirability bias in volunteers' self-reported reasons for volunteering. It has also been argued that because volunteers work in settings that are less constrained, individuals' "psychological state" (e.g., positive and negative feelings experienced; level of satisfaction; attitude; etc.) may play a more influential role in determining individual behaviour:

> "Organizational volunteers are less dependent upon organizational rewards, and their behavioral settings are weaker. Under these circumstances, if attitudes are relatively stable, we might expect the attitude-behavior linkage to be clearer for organizational volunteers than it has been for employees. Since organizational volunteers face fewer constraints, their feelings and thoughts would be expected to be more clearly expressed in their actions."
> (Pearce, 1993, p.88)

Pearce (1993) outlines three types of commitment and subsequent techniques that have been shown as necessary to build community volunteer commitment. These three factors, in order of importance, include: "cohesion commitment" (defined as the development and importance of social and personal relationships; "continuance commitment" (defined as an individual's belief in the value, and their commitment to, the project or agency's purpose); and "control commitment" (defined as an individual's belief in the project or agency's values and that the proposed action is possible and likely to result in the change desired) (Pearce, 1993, p. 102). Numerous researchers suggest that by incorporating and formally recognizing new community volunteers, publicly recognizing the collective contributions made, and providing opportunities for volunteers to collaboratively determine and mutually agree upon goals it may be possible to enhance voluntary community action and to better retain

volunteers. Smith (1983) and Heshka (1983) also argue that voluntary participation is mediated by broader contextual factors. These authors suggest that for motives to be fully understood it is also important to examine environmental and situational factors impacting participation before, as well as during the volunteer experience. In distinguishing between voluntary and paid organizational work, Pearce (1993) suggests that volunteering is a broader and more complex role due to the informality of volunteer responsibilities and the less clear expectations of volunteer work. Pearce (1993) also demonstrates the conflicting nature of volunteer work. "It is "work", working within a formal structure to provide a service to others, and it is a "leisure activity", something done whenever convenient because it is personally rewarding"(p. 9). While there is a lack of consensus among researchers as to why individuals volunteer, Pearce (1993) highlights four key factors (socioeconomic status; social networks; demographic characteristics; personality factors) that have consistently been found to influence volunteer involvement. He argues that individuals with higher levels of income, education, and those with better jobs and family connections are not only more apt to become involved, but also more likely to volunteer in a leadership capacity. Likewise, individuals with more extensive social connections have been found to more readily volunteer. It has been demonstrated that volunteers are most often recruited through family, friends and acquaintances, thus reinforcing the importance of an individual's social network. Personality, in particular, high levels of self-confidence, assurance, self-esteem, and a positive outlook have also been demonstrated as influencing volunteer involvement.

Other conceptual frameworks which help provide a better understanding of volunteer motives include: (1) needs theories (e.g., Harter, 1978; Maslow 1954; White, 1959; etc.)

which suggest that all individuals have personal and hierarchically arranged needs that determine and drive involvement; (2) expectancy theory (Moore, 1985) the belief that one's actions will lead to certain, personally desirable outcomes; (3) goal setting theory (Moore, 1985) which suggests that an individual's personal goals (e.g., desire for recognition; personal growth; etc.) drive behavior; and (4) reinforcement theory (Moore 1985) which argues that the consequences of one's experiences will determine continued and future action. For example, if an experience is pleasurable there is a greater probability that involvement will continue. Reinforcement theory has implications for the structuring of volunteer environments to ensure successful and positive volunteer experiences.

Consistent with community development principles is Knowles' (1972) theory of motivation in voluntarism which uses Maslow's (1943) "hierarchy of needs" as a framework. Knowles suggests that volunteer opportunities which are structured with both opportunities for service and opportunities for learning and self-development, and those with collaboration in planned change processes, will foster the involvement of individuals on an ongoing, long-term basis. Knowles suggests that if volunteer opportunities are structured strictly around providing a service, without opportunities for individuals learning and personal development, volunteer positions will not meet the needs of individuals over the long-term. He argues that once a volunteer's personal needs are met in a "service-oriented" volunteer program, volunteers will withdraw and seek other volunteer opportunities which will better meet their needs and which they will find more fulfilling. In order to retain volunteers over the long-term, and make volunteer opportunities as rewarding as possible, it is important that volunteer opportunities give individuals both a chance to provide a necessary service, and also the

opportunity for learning and self-development. Knowles argues that by coupling the service needs of an organization with learning opportunities for the volunteers it is possible to shift an individual's motivation for volunteering from externally driven service needs, to intrinsic reasons which will keep volunteers involved for much longer periods of time.

Smith (1983; 1994), in examining why individuals volunteer in voluntary associations and not-for-profit organizations, found many different and complex factors that influenced volunteer behaviour. Smith found five key factors (environment; social factors; personality; attitude; one's situation) to influence volunteer involvement. Smith, in his synthesis of volunteer research conducted between 1975 and 1992, found that, among other things, the following were key predictors of volunteer behaviour:

- social status
- education
- income
- internal locus of control
- length of time living in one's community
- perceived benefits of involvement
- altruism
- the characteristics of the volunteer organization (i.e., a community self-help organization vs. other public organizations)
- methods of recruitment, specifically being asked to volunteer
- receiving services from the agency requesting volunteer assistance

Smith further suggests that while there are few theoretical frameworks to guide the study of volunteer involvement, there are currently three conceptual and theoretical models that do help explain volunteer behaviour. For example, there is Lemon, Palisi and Jacobson's (1972) dominant status model which suggests that individuals who are more socially acceptable (i.e., those with higher levels of education, higher incomes and better occupations) are more likely to volunteer. Or the general activity model developed by Smith, Macaulay and their

associates (1980) which suggests that individuals who are more active in their life in general, are also more likely to be involved in volunteer work. There is also the interdisciplinary sequential specificity time allocation lifespan model (ISSTAL) proposed by Smith, Macaulay and associates (1980) which outlines the importance of studying additional factors such as personality and attitude, in addition to environmental, social and situational factors. Smith argues that much more inter-disciplinary research examining all five factors, including environment, social factors, personality, attitude and situational influences, and the influence of these factors on volunteer behaviour is necessary.

There are conflicting opinions regarding what motivates *elderly* volunteers. On one hand, it is suggested that individuals over the age of 60 years are more apt to volunteer to occupy their time, feel useful and because they have a greater desire to help others. On the other hand, a gradual decline in volunteering after the age of 55 years has also been suggested. This decline is attributed to the many losses associated with growing older. The "elderly lose their interpersonal contacts through retirement, widowhood, departure of their children and death of friends" (Pearce, 1993, p. 69). Wan and Odell (1983) investigated the impact of major role losses such as retirement or death of a spouse on social participation patterns of elderly men. These authors found that previous participation, social support and socio-economic status more significantly influenced participation in formal, organized activities than did either role loss alone or role losses and negative life events. Secondary analyses, which controlled for the effects of these variables, revealed that elderly individuals experiencing role losses participated less in formal, organized activities than elderly men without these losses. Ishii-Kuntz (1990), in examining the determinants of participation by

elderly women in voluntary and senior centre activities, found that age, ethnicity and perceived health status affected participation. Findings also suggested higher participation rates by elderly widows. Ozawa and Morrow-Howell (1988) also examined determinants of participation by elderly individuals, as well as the types of services for which the elderly volunteered. The findings of this study suggest that perceived health and level of education influence participation in the provision of home care services. Results also demonstrate that elderly individuals prefer to provide voluntary social or friendly visiting, rather than homemaking or personal care services.

In conclusion, there are three limitations to the current volunteer literature. First, most of the existing studies examine the volunteer behaviour of middle-aged, active individuals; few studies examine the volunteer behaviour patterns of very old individuals with multiple health problems. Second, there are very few existing studies that specifically examine the volunteer involvement of elderly individuals in *health-related* projects; most studies published to date have focused on the involvement of individuals in seniors centres or other public organizations. Third, while generally there is consensus regarding the predictors of volunteer behaviour of middle-aged, active individuals, there is a *lack of consensus* regarding the motives for, and predictors of, volunteer involvement for frailer, very old individuals. Much remains to be done to fully understand the reasons why individuals, and in particular elderly individuals, voluntarily participate in *health-related* community initiatives and what can be done to enhance volunteer involvement by older individuals in general.

Psychological Commitment and Loyalty

Numerous researchers have examined the relationship between involvement,

psychological commitment and behaviour from a marketing perspective (Gahwiler & Havitz, 1998; Iwasaki & Havitz, 1998). Iwasaki and Havitz (1998) proposed a theoretical model of processes leading to prolonged and consistent behaviour by individuals. These researchers suggest that involvement is influenced by both individual characteristics such as beliefs, attitudes, confidence, skill and social-situational factors, and that all of these factors are requisite antecedents to the psychological commitment, by individuals, to a particular product, brand or recreation activity. These individual characteristics and situational factors, in turn, lead to behaviour that is consistent and ongoing (which they call "behavioural loyalty") and subsequently to resistance to change (i.e., switching to another product or activity). Gahwiler and Havitz (1998) applied this model to examine factors which influence YMCA membership in the non-profit sector. These authors, consistent with the model proposed by Iwasaki and Havitz (1998), found that greater levels of involvement were directly linked with commitment in long-term YMCA members. Pritchard, Havitz and Howard (1997) investigated how loyalty and commitment is developed in the service industry. These researchers defined commitment as a resistance to change; a stable or loyal attitude that leads to consistent behaviour. These authors go on to identify three conditions that influence ongoing involvement and how resistant individuals are to changing to other products, brands or services. The three conditions include what the authors call "position involvement", "informational complexity", and "volitional choice". Position involvement refers to whether an individual's personal values are consistent (or not) with one's preferred products or services, and the degree to which individuals identify with the product or service. If one's personal values are consistent with the values associated with a preferred brand or service,

commitment increases and one becomes more resistant to changing to other products and services. Informational complexity involves the gathering and sorting of information about specific products and services, in order to for opinions and feelings about these products and services. If the information being processed is consistent, individuals become more confident about the product or service they are using and are less likely to change their feelings about the product or service. This consistency and confidence leads to loyalty, a resistance to change to other products or services and ongoing involvement. Volitional choice, or freedom of choice, has also been identified as being a key factor that influences commitment. If products or services are freely chosen, commitment to these products and services is maximized, and involvement with these products and services maintained. Park (1996) examined the involvement and attitudinal loyalty of participants in adult fitness programs. Park found that individuals who consider the program to be both important and enjoyable, used the activity for self-expression and maintained their involvement over the long term. Unruh (1980) examined the involvement and interaction of individuals in society and suggests that there are different types of involvement by individuals. Unruh identifies four types of involvement, with varying levels of commitment, where individuals are either "strangers", "tourists", "regulars" or "insiders" in specific social environments. He argues that "strangers" are individuals who have only superficial involvement and little commitment to a particular social organization. "Tourists" are identified by Unruh as individuals who have little commitment and are involved primarily out of curiosity. Participants who are involved in social organizations on a more regular basis and who are more committed to their involvement are defined as "regulars". "Insiders" are individuals who the author suggests

have a much greater commitment to the social organization within which they are involved, are the individuals who shape and mold the organization, and those who are most personally involved with the organization.

These findings help to identify, in general, the requisite antecedents for psychological commitment, consistent behaviour and ongoing involvement by individuals with specific products and services. However, little research has been conducted to examine the psychological commitment to volunteering in health-related activities by elderly individuals, and what strategies might be put in place to maximize the involvement of, and retention of elderly volunteers in health-related community development initiatives.

Personality, Aging and Health

It is widely accepted, from an interactionist perspective, that personality (defined as "stable internal factors" that are consistent over time and across a variety of situations, and differ from person to person), environmental factors and the interaction between individuals and their environment influences behaviour (e.g., Hagberg, Samuelsson, Lindberg & Dehlin, 1991; Mannell, 1984; Mannell & Kleiber, 1997; Pervin 1990; Magnusson, 1990; etc.). While a wide variety of personality traits exist, five key personality factors have been identified as influencing individual actions and behaviour. These five factors which reflect basic underlying dimensions of personality include extroversion, agreeableness, conscientiousness, neuroticism and openness to experience (Mannell & Kleiber, 1997; McCrae & Costa, 1987, 1989). These five personality traits have been identified as being particularly relevant to predicting behaviour in familiar settings, informal social settings and situations where individuals have opportunities for choice, as tends to be the case with voluntarism.

Relatively little research has been conducted to specifically examine personality in relation to volunteer behaviour. Pearce (1993) examined general differences between volunteers and non-volunteers and as part of this work synthesized the results of limited available studies of voluntarism and personality. Consistent with McCrae and Costa's (1987, 1989) five-factor model, these research findings suggest that individuals who are self-confident, optimistic, gregarious, with a greater number of volunteer experiences are more likely to volunteer. From a longitudinal perspective, few differences and changes on these five personality dimensions were found over time with increasing age (Costa & McCrae, 1998, 1988). Hagberg, Samuelsson, Lindberg and Dehlin (1991) also investigated the stability of personality characteristics with increasing age and the impact of personality factors on well-being. These researchers found that some dispositional traits change for elderly individuals (i.e., the greater one's age, the more dependent and egocentric one becomes), but that certain traits, in particular the five identified by McCrae and Costa, are more enduring than others. In very old individuals it was found that extroversion and energy decreased, while agreeableness increased. Likewise, it was demonstrated that situational factors occurring with advancing age (e.g, increased health problems; role loss; social isolation; etc.) greatly impact and challenge an individual's ability to cope, thereby contributing to increased feelings of anxiety and depression. These authors suggest that an individual's personality is vulnerable to the stressful life events associated with aging; that one's ability to cope with these events impacts the stability of one's disposition; that it is important to build in the necessary supports to maintain dispositional stability in elderly individuals; and that, in turn, personality changes may be "sensitive, early predictors of survival" (p. 290).

Similarly, Scheier and Carver (1987) in examining the influence of optimism on individuals receiving coronary bypass surgery, found that optimistic persons were less depressed prior to surgery, recovered much more quickly following surgery and reported increased levels of social support. These researchers further demonstrated a strong relationship between optimism and life satisfaction six months post-surgery. Additional links between optimism, coping strategies and health have been demonstrated. Scheier and Carver (1987) provide evidence of the influence of optimistic personalities on coping ability, ability to locate and access necessary social supports, continued efforts to make the best of one's situation, and subsequently well-being. Other dispositional factors, too, have consistently been linked to health. For example, personality factors such as hostility, anger and competitiveness have been identified as predictors of heart disease; optimism and a positive outlook have been shown to influence immunological functioning; depression, lack of emotion and non-expressiveness have repeatedly been associated with an increased risk of cancer, more rapid progression of cancer and a poorer prognosis (Contrada, Leventhal & O'Leary, 1990; Scheier & Carver, 1987). A "hardy" personality, defined as a committed individual with a sense of control, has been identified as buffering stress and leading to enhanced feelings of well-being (Scheier & Carver, 1987).

Theoretically, for example, individuals who are more extroverted by temperament and low on the neuroticism personality trait, are likely to be individuals with stronger social connections and therefore likely to have greater levels of social support; all important factors associated with increased levels of volunteer behaviour. Personality may play an important role in moderating health voluntarism of elderly individuals. Personality has been shown to

influence both health (Abeles, 1992; Bienenfeld, Koenig, Larsen & Sherrill, 1995; Wallerstein, 1992; Scheier & Carver, 1987) and health service utilization patterns of frail, older adults (Branch, Jettee, Evashwick, Polansky, Rowe & Diehr, 1981; Chappell & Blandford, 1987; Ory & Duncker, 1992; Slivinski, Fitch & Mosca, 1994; Wan & Odell, 1981). Likewise the link between personality and social connectedness of the elderly may be an important factor worthy of more detailed investigation, especially since strong social supports have been shown to influence both health and health service utilization. Further examination of individual differences and the types of personality dimensions that might predict health voluntarism of elderly individuals is necessary to better understand the influence of personality within a community development context.

Health and the Elderly

Health is a broad concept moderated or exacerbated by societal and environmental factors. The accumulation of age and disease has been identified as eroding the capacity of elderly individuals. Many researchers have demonstrated that advanced age results in increased chronic illnesses, increased functional limitations and decreased independence (Arnold, 1992; Ferrini & Ferrini, 1986; France & Alpher, 1995; Gentile, 1992; Kane, Ouslander & Abrass, 1984; Mulder, 1996; Rosenberg & Moore, 1997), as well as increased mental health problems (Harper, 1992). These age and disease related changes have also been "associated with higher mortality, increased health problems, shorter life span, and increased health care costs" (Kemp, Brummel-Smith & Ramsdell, 1990, p. 5). Kemp, Brummel-Smith & Ramsdell suggest:

> "Developing a disability is not a normal part of aging. However, almost

> all conditions that cause disability are more frequently seen in the older population." (p. 3).

A national Canadian population survey revealed that a third of Canadians 65-74 years of age, and half of those over 75 years of age, experienced problems with their health (Rosenberg & Moore, 1997). Interestingly, even with the increase in chronic illness and restricted functioning, it was found that many elderly individuals rate their health as being good (Kane, Ouslander & Abrass, 1984). It has been suggested that this contradiction between the health conditions one has and perceived health demonstrates the ability of elderly individuals to adjust to, and cope with multiple limitations.

Numerous empirical studies have demonstrated that self-rated health by elderly individuals is a good predictor and valid measure of health (DeForge, Sobal & Krick, 1989; Lichtenstein & Thomas, 1987; Rosenberg & Moore, 1997; Soumera & Avorn, 1983), as well as a predictor of physicians' assessment of patient health (DeForge, Sobal & Krick, 1989). Researchers have also demonstrated many factors that influence an individual's perceived health. For example, Abeles (1992) identified feelings of control as predictors of perceived health in elderly individuals. DeForge, Sobal & Krick (1989) examined determinants of perceived health in elderly osteoarthritis patients. They found that elderly patients with higher levels of psychological well-being (operationalized as those patients who were less depressed and less anxious), higher education levels, those who were more active, and those living with others reported better health. Ferrini and Ferrini (1986) suggest regular involvement in physical activity results in better health and increased self-confidence. Likewise, Lindgren, Svardsudd and Tibbin (1994) found that involvement in activities, functional mobility and

"contentment" (operationalized as having friends, number of telephone calls, not being lonely or worried) resulted in higher perceived health in elderly individuals. These authors suggest that greater attention should be focused on life satisfaction factors in order to improve the health of older people. In a study of retired Catholic religious women, Bienenfeld, Koenig, Larsen and Sherrill (1995) demonstrated that perceived control, level of social support, physical functioning and religious commitment increased the life satisfaction and mental health. Stolar, MacEntee and Hill (1992) also suggest a strong relationship between life satisfaction and perceived health. These researchers demonstrate that certain health problems, particularly those restricting daily activity and social contacts more significantly influence the life satisfaction of older individuals. The positive effects of paid part-time work on the perceived health and life satisfaction of elderly retired individuals was demonstrated by Soumera and Avorn (1983). This raises questions around the impact of renumeration or income for duties performed versus the work itself.

Struthers, Chipperfield and Perry (1993) confirm the importance of psychological factors and perceived health. These researchers found that elderly individuals with perceived health barriers had more serious health conditions, required more health services and supports and were less satisfied with their life. In particular, individuals over 80 years of age with perceived health barriers, who place a high value on health and were not satisfied with their life demonstrated the greatest need for health care services and supports. DeCarlo (1974) reported a positive correlation between recreative pursuits (classified according to sensory-motor, cognitive and affective behavioral elements) and successful aging (defined as mental and physical health and intellectual performance) during middle and old age, with those

participating regularly having a higher correlation than those who sporadically participated.

Life Satisfaction and the Elderly

With the multiple losses experienced with advancing age, often one of the primary goals in health care is to add quality to the life of elderly individuals. Dorfman (1995) examined the impact of specific health conditions on perceived quality of life in retired individuals. Dorfman found that incidences of pulmonary disease, heart attacks and stroke, significantly decreased life satisfaction for men; arthritis was associated with the most significant decrease in life satisfaction for women. None of the health conditions were found to affect satisfaction with social interactions. Arnold (1992) and Gentile (1992) demonstrated that increased health influences feelings around quality of life. Abeles (1992) demonstrated the relationship between locus of control and quality of life. Barresi, Ferraro and Hobey (1984) demonstrated that perceived health and satisfaction with one's housing influenced well-being in both men and women. The *quantity* of social contact also affected feelings of well-being for men, while marital status (being married) and the *perception of available social networks* was associated with enhanced feelings of well-being for women. Osberg, McGinnis, DeJong and Seward (1987) investigated predictors of life satisfaction with elderly individuals recovering from major illnesses, recently discharged following prolonged hospital stays. For these individuals low functional ability, restricted income and low educational levels were found to significantly correlate with decreased feelings of life satisfaction. Lawton, Moss and Duhamel (1995) examined determinants of life satisfaction of elderly individuals with severe physical, cognitive and mental health impairments who were awaiting nursing home placement. These researchers found that 55% of these elderly individuals day

was spent in passive activities such as resting, listening to the radio or watching television. Only 3 of 116 study participants reported to have been involved in *any* recreation activity. These authors reinforce the importance of recreation opportunities and family/friend support in increasing the quality of life in extremely impaired elderly living in the community. Cohen-Mansfield (1990) found perceived control and levels of "reinforcement support" (defined as "satisfying events or stimuli (or the removal of negative events) following a response by an individual" (p. 492) as significantly influencing the life satisfaction of community-dwelling elderly. Farquhar (1995) demonstrated social contact, health, activity levels and family relationships as impacting the quality of life of older people. Likewise, Bevil, O'Connor & Mattoon (1993) also found that involvement in a greater number of activities (both active and passive; alone or with others) lead to increased levels of life satisfaction in older adults. No relationship was found between involvement in leisure activities and health. Similarly, Chappell (1992) demonstrated the strong relationship between social support and quality of life for elderly individuals. Palmore and Kivett (1977), using longitudinal data from individuals 46 to 70 years old, determined that social participation (operationalized as sexual relations and organizational activity) was positively correlated with life satisfaction for both men and women, with the single best predictor of later life satisfaction being satisfaction at an earlier time. Graney (1965) reported a significant relationship between social participation (especially face-to-face interaction with friends and relatives) and happiness among women ages 62 to 89; with the less active seeming less happy. Lemon, Bengston and Peterson (1972) found a significant positive correlation between informal activity with friends and life satisfaction; as social activity with friends increased so did life satisfaction.

The findings of Lemon, Bengston and Peterson (1972) and others, take on increased importance when aging statistics are combined with known leisure participation patterns of elderly Ontarians. According to the Minister for Senior Citizens' Affairs (1985) the leisure activity undertaken by the greatest proportion of the elderly of all ages is visiting with family. However, for those aged 85 years and over, the proportion of persons reporting this activity was only 74 percent. For those aged 85 and over, 70 percent reported that they still telephoned friends, but only 56 percent reported that they still continued to visit friends. The likelihood of an elderly individual (over 85) participating in any given activity was substantially lower than that reported by the 62 to 74 age group. Entertainment was undertaken by 65 percent of the younger group, but only by 30 percent of the older age group. The incidence of traveling declined from 70 to 30 percent. Gardening decreased from 63 to 39 percent, and participation in clubs decreased from 44 to 29 percent. Mannell and Dupuis (1996), in reviewing predictors and correlates of life satisfaction, support the influence of factors such as health, functional ability, income, marital status, activity level and social resources on life satisfaction for older individuals.

Decreasing activity patterns, combined with increasing health problems and multiple losses places elderly individuals at greater risk, as individuals experience increased feelings of isolation, depression and loneliness. Maintaining the life satisfaction of elderly individuals has become an important focus in the field of gerontology and is also an important consideration within the context of health promotion and community development.

Health Service Utilization Patterns and the Elderly

Home and community-based health care services have expanded significantly recently,

fueled by the long-term care needs of an aging population Demographic trends support a continued increase in the demand for these supportive services. According to Home Support Canada, as cited in a position paper prepared by the National Advisory Council on Aging, the number of home support workers and services to the elderly increased by at least 50% during the past decade. It is estimated that 270,000 community-dwelling elderly Canadians require substantial support for daily living. By the year 2031, this number is expected to triple (NACA, 1993). Families and friends play a critical role in the overall health and welfare of older persons living in the community, providing over 80 percent of all daily care, often at great emotional and financial expense (Stone, 1988; France & Alpher, 1995).

In recent years, many researchers have studied the determinants of health service utilization and the patterns of utilization of elderly individuals. One of the most popular methods employed to examine utilization differences is the Anderson model (Bass & Noelker, 1987; Branch, Jette, Evashwick, Polansky, Rowe & Diehr, 1981; Chappell & Blandford; 1987; Ory & Duncker, 1992; Slivinski, Fitch & Mosca, 1994; Wan & Odell, 1981). The Anderson model and Wan & Odell's model examine the influence of individual and social factors on health service utilization and outline three general categories of factors (predisposing, enabling and need factors) impacting health service utilization. Predisposing factors are defined as personal characteristics which exist prior to the onset of illness. Predisposing factors consist of demographic (e.g., age; gender; etc.), social (e.g., living arrangements; type of employment; etc.) and attitudinal components (i.e., personal values and beliefs around health issues. Enabling factors consist of both personal (e.g., financial situation; social support; transportation; etc.) and situational (e.g., accessibility of services;

cost of services; etc.) characteristics which may potentially impact health and social service utilization once a need has been determined. Need factors are condition or illness-based and include both perceived need (e.g., subjective health; perceived symptoms; perceived functional ability; etc.) and professionally assessed need (e.g., physician diagnosis). Of these three categories, need factors have been identified as the best predictors of health service utilization by elderly individuals (Branch, Jette, Evashwick, Polansky, Rowe & Diehr, 1981; Chappell & Blandford, 1987; Ory & Duncker, 1992; Slivinski, Fitch & Mosca, 1994; Wan & Odell, 1981). Slivinski, Fitch & Mosca (1994) suggest that:

> "when sufficient levels of predisposing and enabling characteristics existed and a need was perceived, health services were more likely to be utilized" (p. 22).

Increasing age has been demonstrated to significantly influence the use of health services (Arnold, 1992; Berk & Bernstein, 1985; Ishii-Kuntz, 1990; Kane, Ouslander &Abrass, 1994; Mulder, 1996; Ory & Duncker, 1992; Wolinsky, Mosley & Coe, 1986), as has perceived health (Slivinski, Fitch & Mosca, 1994). Wolinsky, Mosely and Coe (1986) found an increase in physician and hospital visits by elderly individuals over 80 years of age. Kane, Ouslander & Abrass (1984) reported increased rates of health service utilization for individuals over 75 years of age. In contrast to other findings, these authors found that chronic illness and advanced age, regardless of perceived health, lead to increased health service utilization. Benjamin (1992) examined national U.S. data sets and found that 21.5% of elderly Americans (1 in 5) used one or more community-based health and social services, with services ranging from specialized care to homemaking, housecleaning to meal preparation and delivery (p.19). Specific predictors of service utilization included age, sex

(being female), health, functional ability & living arrangements; elderly individuals with increased social support were found to be less apt to use formal system-provided health services. Wan and Arling (1983) found that decreased functional ability and difficulties with self-care influenced the use of social services, but not health services (operationalized as physician and hospital visits). On the other hand, an individual's number of illnesses and symptoms were found to influence health service use but not social service use.

Hughes (1992) differentiated between the use of specialized services and homemaking services. It was found that use of specialized services increased with age, with a significant increase in use noted for individuals over the age of 85. "For both men and women incidence use rates among those 85 and older were 12 times the rate of those 65-75" (p.61). Also, being isolated and having no social involvement were identified as increasing the number of specialized services used. Likewise, homemaking service use was influenced by age and being female. Marital status (being single) was also found to increase homemaking service use. Slivinski, Fitch & Mosca (1994) found perceived health to be the most significant predictor of physician and hospital visits. Contrary to these findings McCaslin (1989) found that knowledge of, and orientation to, the health service system and perceptions of personal benefit from services available were more powerful predictors of health service utilization for well elderly individuals than demographic, health or functional ability factors.

While it is clear that there are many common variables associated with health and health service utilization patterns of elderly individuals, as well as with volunteer behaviour patterns, it is also agreed that there are many complex, reciprocal inter-relationship among these variables that require more extensive investigation in general, as well as from a

community development context.

CHAPTER III

METHODOLOGY

This study consisted of two phases and utilized cross-sectional survey methodology including a number of standardized scales to investigate the willingness of community-dwelling elderly individuals to become more involved in the planning and provision of their own health care services, and to examine the influence of individual differences among elderly people on voluntary participation in health-related community action. Other researchers, over the years, have repeatedly found the same variables to influence volunteer behaviour, health and health voluntarism. For example, an individual's social resources, activity level, personality, socio-economic status and age, along with physical and social environmental factors have all been identified, not only as determinants of volunteer behaviour, but also as determinants of the individual's health and health services received. Furthermore, health has been identified as a key factor influencing *both* volunteer behaviour (Ishii-Kuntz, 1990; Ozawa, Morrow & Howell, 1988) and health service utilization (e.g., Benjamin, 1992; Branch, Jettee, Evashwick, Polasky, Rowe & Diehr, 1981; Ory & Duncker, 1992; Wan & Odell, 1981; etc.). From an applied community development perspective, it is important to examine those factors which impact community members' health, their volunteer behaviour and utilization of health services which the individuals themselves or others have some

influence over. Community enablement initiatives can then focus on those factors which will increase involvement by individuals and communities in decision-making around their health needs and, ultimately, may improve the health of the community as a whole. What is found in this study will be of interest to other communities of elderly individuals, as well as health professionals and community developers and as such, the generalizability of the results of this study is very important. Thus the present study consisted of two phases.

Phase I of this study took advantage of a larger already completed community survey (n=1231) to examine the predictors of health and health service utilization of elderly individuals in the Cherryhill community to determine whether findings of this study are consistent with what other researchers have found. If results of this secondary analysis are reasonably consistent with those reported by other researchers, we can have greater confidence in generalizing the findings of Phase II of the present study to other communities of elderly individuals to guide health-related community action. Phase II of this study examined: (1) the factors in peoples lives that influence health voluntarism and volunteer leadership over which individuals and others (e.g., community planners) have some influence; (2) whether variables that are not changeable (e.g., age; socio-economic status; life changes; etc.) modify the relationship between variables that are changeable and health voluntarism and volunteer leadership; and (3) whether the same factors influence health and health service utilization, and health voluntarism and volunteer leadership of elderly individuals.

Study Participants

Participants for this study were residents of the Cherryhill Village community, a compact high-density apartment complex within the city of London, Ontario. The Cherryhill

community has a high concentration of seniors and is an area of high health service utilization. The Cherryhill Village apartment complex consists of 13 apartment buildings with 2325 units (an estimated total population of 2953 individuals) and 64 businesses under a single management group, the ESAM corporation. Sixty-one percent of the community are elderly women living alone. All study participants met the following inclusion criteria:

Phase I. All residents lived in one of the 13 apartment buildings, owned by the ESAM Corporation, in the Cherryhill Village.

Phase II. All study participants were 55 years or older and lived in one of the 13 apartment buildings, owned by the ESAM Corporation, in the Cherryhill Village.

Sampling Design

Phase I. One resident residing in each of the 2325 units of the Cherryhill Village apartment complex was provided with a Cherryhill Community Survey. Consistent with community development principles community residents shared decision-making around the numbers of surveys to be delivered and the methods of survey distribution. While not necessary, it was decided by the community to send a survey to each of the 2325 units in the Cherryhill apartment complex because of an extremely high level of community interest in the Cherryhill project, good community support to deliver and collect surveys, and to save a significant amount of time down the road in having to explain to a large number of individuals why they were not allowed to complete a survey.

Phase II. There was a 100% sampling of all Cherryhill community residents 55 years of age or older who were currently volunteering with the Cherryhill Community Project or who had made a strong commitment to volunteer (given their names, telephone numbers and

addresses and formally requested to become involved) (n= 126). Of this total volunteer sample, 21 individuals were actual volunteers and an additional 105 individuals had made a strong commitment to volunteer. The response rate for individuals who were already volunteering with the Cherryhill Community Project (n=21) was 100%. Of the 105 individuals who made a strong commitment to volunteer, 86 completed the health voluntarism survey, five refused, two were away on vacation and 12 had moved out of the Cherryhill apartment complex, leaving a final volunteer sample of 107 (21 volunteers; 86 willing to volunteer).

A comparative sample of non-volunteers was drawn from the remainder of the Cherryhill apartment complex. The ESAM corporation provided a master list containing the apartment building and telephone numbers of all residents residing in the 13 apartment buildings in their complex. All residents who were volunteering or had made a commitment to volunteer could be identified by name, apartment building, unit and telephone number. These individuals were cross-referenced with the master list and removed from the listing. A systematic random sample was then drawn from the revised list of all remaining apartment units (non-volunteers) in the Cherryhill apartment complex. Based on an estimated 10% refusal rate and anticipating that approximately 10% of individuals contacted would not meet the study inclusion criteria (e.g., 55 years of age or older), 130 non-volunteers were sampled for the comparative group in order to give approximately equal sample sizes for the group comparison. Ten telephone numbers were randomly selected from the master list for each of the apartment buildings such that a comparative group of approximately equal size would be obtained. Of the potential non-volunteer sample (n=130), 17% (n=22) of non-volunteers

contacted did not meet the age requirement of 55 years or older, thus leaving a final non-volunteer sample of 108. Of the 108 non-volunteers contacted 74 completed the health voluntarism survey and 34 refused (response rate = 69%) leaving a final non-volunteer sample of 74. The total study sample for Phase II was 181 (21 volunteers; 86 willing to volunteer; 74 non-volunteers).

Instrumentation

Phase I. In keeping with community development principles, community residents and other community partners shared equally in the decision-making around the design of the community survey. Three different versions (of Section C) of the community survey were developed to capture information on health, community issues and issues associated with the Cherryhill Village mall. Each survey contained the same sections A (socio-demographic questions) and B (questions regarding the assets, strengths and limitations of the Cherryhill community), but only one version of the three versions of section C (one version contained health questions, the second questions about the Cherryhill community in general, the third questions specific to the Cherryhill Village Mall) (see Appendix C). Key variables included socio-demographic variables, health, functional ability, well-being, environmental conditions, perceptions of the community, perceptions of control and caregiving, as well as health service utilization, and knowledge of the health system. Most of the community survey questions were written specifically for this study, except the questions regarding health which consisted of a standardized scale. Health was measured with the Medical Outcomes Study (MOS) short-form scale (Stewart, Hays & Ware, 1988).

Phase II. To answer the primary questions of interest in Phase II of this study, about

whether individual differences exist between community-dwelling elderly who voluntarily become involved in the planning and provision of their own health (versus those who do not) and leadership in health voluntarism, six types of *modifiable* variables (health; functional ability; well-being; activity level; social resources; environmental conditions) and six major *non-modifiable* variables (age; socio-economic status; personality; life changes; gender; general volunteer behaviour) were measured. Data were collected by means of a questionnaire containing 44 sets of items and scales (see Appendix D). The questionnaire consisted of a variety of standardized scales designed to measure the variables of interest, along with a number of general questions specifically written for the study. In order to maximize the response rate, the questionnaire was administered in a face-to-face interview format.

Instruments. A description of instruments and items used in the Health Voluntarism Survey follow.

(1) Socio-Demographic Factors. Socio-demographic factors were measured with 11 general questions on the survey. Questions included the number of years residents had been living in the Cherryhill Village, age, gender, marital status, education, occupation, income, living arrangements and major life changes experienced.

(2) Environmental Conditions. Environmental conditions were measured with one, 6-part question addressing satisfaction with: (a) apartment buildings; (b) grounds; (c) health services available; (d) other services and community resources available; (e) the landlords/property owners; and (f) neighbours and one question addressing community attachment that asked respondents how likely it was, given the opportunity, they would move to another similar

community where the cost is the same. Respondents were asked to rate their level of satisfaction in each of these areas on a 6-point Likert-type scale ranging from 1 (not at all satisfied) to 6 (very satisfied); and 1 (no, I like it here) to 6 (yes, I would move), respectively. (3) Health Voluntarism (Commitment to Volunteering). Health voluntarism was measured with five questions asking: (1) whether respondents were currently volunteering with the Cherryhill project (yes/no); (2) if so, how many hours per week respondents were currently volunteering; (3) if not volunteering, how likely it is that they will volunteer in the Cherryhill Community Project during the next year. Commitment to volunteering was measured with a 6-point Likert-type scale ranging from 1(not at all likely) to 6 (most definitely will). Respondents were also asked that if willing to help, how many hours per week they would be willing to devote to the project; (4) psychological commitment to the Cherryhill Community Project was measured with the Social World Segmentation Instrument (Unruh, 1983) and the Psychological Commitment Instrument (Pritchard, Havitz & Howard, 1999). The Social World Segmentation Instrument is a 4-item scale that examines how individuals perceive their level of involvement in social organizations (e.g., "strangers", "observers", "regulars" or "insiders") in four areas: (orientation; experience; relationships with others; commitment). The 13-item Psychological Commitment Instrument (PCI) measures three antecedents of resistance to change (position involvement; informational complexity; volitional choice) and resistance to change itself; and (5) a final question asked respondents, that if they were not volunteering, to identify the reasons affecting their decision not to volunteer in the Cherryhill Community Project. Respondent answers to these questions were validated against Cherryhill Community Project records.

(4) Leadership in Health Voluntarism. Volunteer leadership was measured with a question asking respondents how likely it is that they will volunteer for a leadership position. This was measured using a 6-point Likert-type scale ranging from 1 (not at all likely) to 6 (most definitely).

(5) General volunteer behaviour. Past and current volunteer involvement in activities other than the Cherryhill Community Project were measured with three sets of questions. The first question asked respondents about their reasons for volunteering. Eight reasons for volunteering were provided. Respondents were asked to rate how important each of the reasons is for them on a 6-point Likert-type scale ranging from 1 (not at all important) to 6 (extremely important). The second set of questions asked respondents how many hours per week they volunteer in other areas and to list what they are involved in. The third set of questions asked respondents how many hours per week they spent volunteering in the past, to list what they had been involved in and for what length of time (number of years) they volunteered in the identified activities.

(6) Health. Both subjective and objective health were measured. Subjective health was measured by the health perception scale taken from the Medical Outcomes Study (MOS) short-form General Health Survey (Stewart, Hays & Ware, 1988). The MOS short-form consists of four multi-item scales (physical functioning; role functioning; mental health; health perceptions) and two single-item scales (social functioning; pain). The health perception scale consists of five items. Four of the items ask respondents to answer questions about their health on a 5-point Likert-type scale, ranging from 1 (definitely true) to 5 (definitely false). The fifth item asks respondents to rate their health on a 5-point Likert-type scale, ranging

from 1 (poor) to 5 (excellent). Stewart et al. report the internal consistency of the five-item health perception scale to be 0.87 (Cronbach's Alpha Reliability Coefficient). In their research, the health perception scale correlated substantially with the other three multi-item scales of the MOS short-form: physical functioning 0.53, mental health 0.45 and role functioning 0.57; all correlations were statistically significant ($p<0.01$). The researchers also suggest they found criterion-related evidence of validity, in that individuals with higher income and education levels reported better health and that older individuals perceived themselves as less well than younger individuals on all measures except the mental health scale. Respondents were also asked whether they had been told by their doctor that they had any health conditions or illnesses (yes/no) and if so, what these conditions are. Objective health was measured with four questions that asked about the frequency of hospital admissions and physician visits during the past year, number of calls for help and home health services received.

(7) Functional ability. Physical functioning ability was measured using three questions which asked study participants if they are limited in their daily activity (6-point Likert-type scale ranging from 1 (not at all limited) to 6 (severely limited)); and if they are limited, what is causing this limitation (main condition or health problem).

(8) General well-being. The concept of well-being or quality of life is a particularly complex construct and has been conceptualized in many different ways (e.g., life satisfaction; depression; happiness; etc.), measured using a variety of methods (i.e., single versus multi-item ratings), and capturing subjective feelings at different points in time. A quick and accurate measure designed and tested for use with an elderly population was desirable for this

study. The Short Happiness and Affect Research Protocol (SHARP) (Stones, Kozma, Hirdes, Gold, Arbuckle & Kalopack, 1996) was found to be the most suitable instrument. The SHARP is a short 12-item measure of subjective well-being which includes short-term (affective) and long-term (dispositional) positive and negative components; a "yes" and "no" response format is used. The SHARP is derived from the much longer Memorial University of Newfoundland Scale of Happiness (MUNSH) (Kozma & Stones, 1980). A series of studies (see Kozma & Stones, 1987, 1988) provide evidence of internal consistency ranging from $\propto = 0.80$ to $\propto = 0.82$. Test-retest reliability coefficients of the SHARP at 18, 30 and 48 months following baseline administration are reported as $r = 0.52$, $r = 0.41$ and $r = 0.42$ respectively. The SHARP has also been shown to consistently correlate $r = 0.94$; $r = 0.95$) with the longer version MUNSH (Kozma, et. al., 1996). Koszma et. al (1996) provide further evidence of the validity of the SHARP. Factor analysis supports a unitary factor structure; all factor loadings, except one (0.33), exceeded the 0.45 level.

(9) Activity level. The type and frequency of activity participation was measured with the Activities Checklist (Arbuckle, Gold, Chaikelson & Lapidus, 1994). The Activities Checklist identifies 22 activities routinely engaged in by older individuals. Each activity is rated on a 5-point Likert-type scale ranging from 1 (less than once a year) to 5 (daily). The authors report that test-retest reliability based on administering the scale to two separate groups (both with time intervals of approximately five years) produced reliability coefficients of 0.54 with an all male sample ($p<0.01$) and 0.43 for a mixed sample ($p<0.05$) with Bonferroni correction procedures applied. Internal consistency as measured by Cronbach's Alpha Reliability Coefficient was $\propto=0.71$ and $\propto=0.68$ for the male sample and times one and two respectively;

$\propto$=0.14 and $\propto$=0.52 for the mixed sample at times one and two respectively. Moderate to low levels of internal consistency were expected due to the heterogeneity of the 22 activities included in the checklist. A shift from active to more passive activities for a number of the items, for both the male and mixed samples, is consistent with expected age-related changes and provide evidence of face validity. Further evidence of construct validity was provided by correlating total Activities Checklist scores with measures of education and occupation. For the male sample, correlations of activity level with education were 0.34 ($p<0.001$) and 0.26 ($p<0.01$) for times one and two respectively, and with occupation 0.36 ($p<0.001$) and 0.19 ($p<0.05$) for times one and two. For the mixed sample, correlations with education and occupation were not significant. However, correlations between Activities Checklist scores and MUNSH (well-being) scores were demonstrated as being significant for both samples.

(10) Social resources. Social resources were measured using a 6-item short version of the Social Support Questionnaire (Sarason, Sarason & Shearin, 1987). The Social Support Questionnaire (Sarason, Levine, Basham & Sarason, 1983) is a self-report measure consisting of 27 items. Each item requires a two part answer. First individuals are asked to list people who they feel provide them with support in specific situations, then individuals are asked how satisfied they are with the support received in each of the described areas. Satisfaction is rated on a 6-point Likert-type scale ranging from 1 (very unsatisfied) to 6 (very satisfied). The 6-item short version consists of questions 9, 17, 19, 20, 23 and 25 taken from the longer Social Support Questionnaire. The six questions were selected on the basis of reported factor analyses and were all items that loaded highly on the social support and social support satisfaction scales of the longer version. Internal consistency of the 6-item short version is

reported as ranging from $\propto = 0.90$ to $\propto = 0.93$. Correlations with the longer Social Support Questionnaire were reported as 0.95 for social support scale and 0.96 for the social support satisfaction scale.

(11) Personality. Personality was measured with five general questions asking respondents about their personality dispositions. Questions were asked about (a) extroversion, (b) neuroticism (c) openness to experience, (d) agreeableness, and (e) conscientiousness. The respondents were given descriptions of extroversion, neuroticism, openness to experience, agreeableness and conscientiousness based on definitions provided by McCrae and Costa (1987) and were asked to rate themselves on 6-point Likert-type scales ranging from 1 (not at all like me) to 6 (exactly like me). McCrae and Costa (1989) and others, through their research on interpersonal relations, identified key enduring personality traits that all individuals possess which influence one's social behaviour. They subsequently developed a five-factor model that summarizes these key personality traits that were found to influence how individuals interact with others. The five summary components include extroversion, neuroticism, openness to experience, agreeableness, and conscientiousness. These researchers suggest that all five of these factors should be measured when conducting studies on the influence of personality on behaviour.

The dependent and independent variables used in the study, their relevance to the research questions of interest and the corresponding study questionnaire items are outlined in Table 3.1.

Procedures

Phase I. Consistent with community development principles and the community

Table 3.1

Variables, Research Questions and Phase II Health Voluntarism Survey Items

Variable Name	Research Question	Item on Phase II Health Voluntarism Survey
Dependent Variable 1: Health Voluntarism	Questions 1,2,3: How are health, functioning, activity, social resources, environmental satisfaction inter-related & how do they influence health voluntarism	See Questions 15, 16, 17, 18, 19, 20, 22, 23: what know about CH project; volunteer (Y/N); # hours; given name to help (Y/N); how likely will volunteer (6-pt. Likert-type scale); # hours willing to give; psychological commitment to CH project (2 standardized scales)
Dependent Variable 2: Leadership in Health Voluntarism	Questions 1, 2, 3: How are health, functioning, activity, social resources, environmental satisfaction inter-related & how do they influence leadership in health voluntarism	See Questions 21: how likely will volunteer for a leadership position (6-pt. Likert-type scale)
Independent Variable 1: Health	Questions 1,2,3: see above	See Questions 12, 28, 29: Subjective health (standardized questions taken from Medical Outcomes Study, short form general health survey; 5-point Likert-type scale); told by dr. that they have any health conditions; See Questions 32, 33, 34, 35: Objective health (hospital admissions, physician visits, calls for help, home care services received)

Table 3.1

Continued

Variable Name	Research Question	Item on Phase II Health Voluntarism Survey
Independent Variable 2: Functional	Questions 1,2,3: see above	See Questions 30, 31: activity limitation; condition causing limitation
Independent Variable 3: Well-Being	Questions 1,2,3: see above	See Question 36: standardized Short Happiness & Affect Scale (SHARP) (Y/N response format)
Independent Variable 4: Activity Level	Questions 1,2,3: see above	See Question 37: standardized Activities Checklist; what activities inds. are involved in & ow often (5-pt. Likert-type scale)
Independent Variable 5: Social Resources	Questions 1,2,3: see above	See Questions 38, 39, 40, 41, 42, 43: standardized Social Support Questionnaire, number of social supports (list) & satisfaction with these social supports (6-pt. Likert-type scale)
Independent Variable 6: Environmental Conditions	Questions 1,2,3: see above	See Questions 13,a,b,c,d,e,f, 14: satisfaction with apartment, grounds, health services, other resources, treatment by landlord, neighbours; community attachment (6-pt. Likert-type scales)
Independent Variable 7: Health Service Utilization	Questions 3: see above	See Question 35: services received (Y/N); list

Table 3.1

Continued

Variable Name	Research Question	Item on Phase II Health Voluntarism Survey
Independent Variable 8: Personality	Question 1,2,3: see above	See Questions 44,a,b,c,d,e: self-ratings of extroversion, neuroticism, openness to experience, agreeableness, conscientiousness (6-pt. Likert-type scale) based on standardized definitions of these 5 concepts
Independent Variable 9: Years in Community	Questions 1,2,3: see above	See Question 1: number of years lived in community
Independent Variable 10: Age	Questions 1,2,3: see above	See Question 2: year born
Independent Variable 11: Gender	Questions 1,2,3: see above	See Question 3: sex (male/ (female)
Independent Variable 12: Marital Status	Questions 1,2,3: see above	See Question 4: marital status (single; married; widowed; divorced; common-law)
Independent Variable 13: Living Arrangements	Questions 1,2,3: see above	See Question 5: living arrangements (alone; with spouse or partner; family; friend; other)
Independent Variable 14: Education	Questions 1,2,3: see above	See Question 6: highest level of formal education attained

Table 3.1

Continued

Variable Name	Research Question	Item on Phase II Health Voluntarism Survey
Independent Variable 15: Occupation	Questions 1,2,3: see above	See Questions 7 a,b, 8, 9 i, ii, iii: main occupation of self and spouse; working for pay; professional skills
Independent Variable 16: Income	Questions 1,2,3: see above	See Question 10: sufficient income to do the things you you want to do (6-pt. Likert type scale)
Independent Variable 17: Major Life Events	Questions 1,2,3: see above	See Question 11: major life changes during the past year
Independent Variable 18: General Volunteer Behaviour	Questions 1,2,3: see above	See Questions 25 a,b,c,d,e,f,g, 26, 27 a,b,c: past & current volunteer involvement; time involved (hours per month); what involved in; motives

systems approach, community residents and other community partners collaboratively designed the initial community survey and mutually agreed upon items to be included. The final draft of the community survey was pilot tested with 15 community residents. Changes to the survey were made based on the feedback provided. Specifically, the language in questions 6 and 11 in Section A, question 18 in Section B and questions 19 and 27 in Section C (health version) was modified. Likewise the survey instructions were modified according to resident suggestions. The final community survey is provided in Appendix C. Community residents mobilized community members to assist with survey distribution and collection. An initial residents' committee established to work on the community survey identified, and arranged for, other community members to assist with the community survey. Residents interested in helping were brought together for one meeting. During this meeting the residents' committee facilitated discussion, decisions and consensus around issues such as date for the survey to be delivered, length of time before the survey was to be collected, support for residents requiring assistance to complete the survey and promotion of the community survey. Residents had three days to complete the survey. A 3-tiered "help" system was organized by the residents. This 3-tiered "help" system included (1) a help table in the lobby of each of the 13 apartment buildings manned by community residents during the morning and afternoon of each of the days the survey was being completed, (2) residents who were "on-hand" to provide one-on-one assistance in resident's apartments if they were unable to come to the lobby help table, and (3) community volunteers (non-residents) who were "on-hand" if any of the residents expressed concerns regarding anonymity and confidentiality and did not want assistance from fellow community members. Three days prior to survey

distribution flyers were posted in each of the 13 apartment buildings reminding residents of the date the survey was to be distributed. Each of the three days prior to survey distribution these flyers were changed to "count-down" the days, reminding residents of the specific day the survey was to be distributed. Boxes were placed in each of the lobbies of the 13 apartment buildings for the 3 days of the survey to make it easy for residents to complete and return their surveys. As an incentive for residents to complete their surveys and to maximize response rate, a draw (for a gift certificate in the amount of $100 for use in any of the Cherryhill Village stores) was organized. A separate form was included with the survey for residents wishing to provide their names and addresses for the draw; likewise a second box was placed in each of the lobbies of the 13 apartment buildings to collect the draw forms and to ensure confidentiality of the community surveys; 1181 completed draw slips were received and 1231 completed health voluntarism surveys were received. All community partners assisted in collecting the completed community surveys at the specified time at the end of the third day. All arrangements for distributing, assisting with and collecting community surveys were facilitated by the residents committee and agreed to by the other community resident helpers. Survey results were analyzed by researchers with the Cherryhill Community Project, shared with community residents and partners, then community-identified issues were collaboratively prioritized for action and community action teams established to address the community-identified issues.

Phase II. Prior to beginning Phase II data collection the final draft of the health voluntarism survey was pilot tested with three community residents, two of whom were 80+ years of age, in good health and active and one resident who was also 80+ years of age, but

much frailer with numerous medical conditions, mobility problems and who had experienced a number of recent, traumatic life changes. Each of the three residents who were involved in the pilot testing reported that nothing should be changed on the survey and that, in their opinion, residents would not experience any difficulty in answering any of the questions nor would they find the length of time required for the interview too difficult. The interviews with the two well and active residents averaged 40 minutes; the interview with the resident who was frailer and emotionally fragile took one hour and 15 minutes. Once pilot testing was completed, all Cherryhill community residents who were volunteering and those who had made a strong commitment to volunteer in the Cherryhill Community Project were contacted by the researcher for inclusion in Phase II of this study. A random sample of non-volunteers was then drawn from remaining Cherryhill residents to provide a comparative sample. All potential study participants were initially contacted by the researcher to ensure compliance with study inclusion criteria and to determine their willingness to become involved. The study participants in both groups were told to expect a telephone call during the next day or two from one of the research assistants to arrange a time for their interview. The length of the interviews ranged from slightly less than one hour to one hour and 30 minutes. The questionnaire was administered in a face-to-face interview by trained research assistants in order to maximize the response rate. Three research assistants were recruited and trained in survey administration techniques with older individuals. The one hour training provided to the research assistants included a review of each of the survey questions, guidance on how to ask questions and score respondent answers in a consistent fashion, procedures for contacting study participants, arranging interviews, and procedures for answering resident

questions about the Cherryhill Community Project. Research assistants were blind to the purpose of the study. Interviews began at the end of November 1998 and were completed by the end of February 1999. Ethics approval for the present study, the letter of explanation for study participants, and the consent to participate form are provided in Appendices E, F, and G, respectively.

Data Analyses Procedures

A series of parametric and non-parametric statistical analyses were conducted to examine the predictors of health, health service utilization, commitment to health voluntarism and leadership in health voluntarism in study Phases I and II, and to test the inter-relationships among the "modifiable" and "non-modifiable" variables and the influence of these variables on health voluntarism and leadership in health voluntarism (Phase II). These are outlined in Chapters IV and V.

CHAPTER IV

PHASE I RESULTS: DETERMINANTS OF HEALTH AND HEALTH SERVICE UTILIZATION

This chapter outlines results from a secondary analysis of the initial Cherryhill Community Survey (Appendix C) used to: (1) identify predictors of health and health service utilization in the Cherryhill population; and (2) examine whether the findings of this study are consistent with those reported by other researchers who have studied different groups of elderly individuals. If predictors of health and health service utilization for elderly individuals living in the Cherryhill community are consistent with what other researchers have found then there is a greater chance that the findings and patterns identified in Phase II of the present study can be generalized to other communities of elderly individuals to help guide health and community development professionals in the future.

The Cherryhill Community Survey (n=1231) consisted of three parts: (1) Section A: socio-demographic questions; (2) Section B: questions regarding assets, strengths and limitations of the Cherryhill community; and (3) Section C: questions regarding residents health, community and environmental issues, and the Cherryhill Village Mall. Each survey contained the same Sections A and B (n=1231) but only one of three versions of Section C;

(C1): Health (n=405); (C2): Community and Environment (n=391); and (C3): Cherryhill Village Mall (n=435). The total sample (sections A and B) and sub-sample C1 (health) of the Cherryhill Community Survey were used for Phase I analyses. Variables found by other researchers to influence health and health service patterns of elderly individuals and corresponding Cherryhill Community Survey items used to operationalize these variables are outlined in Table 4.1. The following series of analyses were used to examine health and service utilization patterns, and their predictors: (1) a descriptive analysis of the respondents in the total sample age 55 years or older (n=1043) was performed using parametric and non-parametric procedures; (2) descriptive analyses and t-tests were carried out to examine the characteristics of all respondents 55 years or older (n=1043), and the characteristics of the three sub-samples of respondents of the same age who completed the C1 health version of the survey (n=345), the C2 community and environment version of the survey (n=334) and the C3 Cherryhill Village Mall version of the survey (n=364) to examine how representative the sub-samples were of the total sample; (3) bi-variate correlation and multi-variate analyses were used to determine predictors of health and health service utilization; and (4) the results of the present study were compared with those reported in other studies.

The Cherryhill Population

Analyses of the Cherryhill Community Survey (response rate = 53%) revealed that of the 1231 total participants in Phase I of this study 1043 (85%) were 55 years of age or older and 23% were male and 77% female with a mean age of 76 years and standard deviation of $\pm$ 8.06 years (see Figure 4.1). Respondents had lived in the Cherryhill community for an average of 10 years (SD = $\pm$ 7.56 years), with the oldest individuals (85+ years) having lived

Table 4.1

Known Variables Influencing Health and Health Service Utilization and Corresponding Items on the Cherryhill Community Survey

Variable	Research Question	Item on Phase I Community Survey
Dependent Variable #1: Health	Q3: What are the predictors of health? What are the predictors of health service utilization?	Subjective health: Section A (Q12, Q13) M.O.S. short-form health perception scale (5-pt. Likert-type scale) Objective health: Section B (Q7) receiving health services (Y/N); Section C1 (Q7) physician visits (no. of visits during past year), (Q6) hospital admissions during past 6 months (Y/N), (Q10) emergency room visits during past year (Y/N)
Dependent Variable #2: Health Service Utilization	Q3: What are the predictors of health service utilization?	Section A (Q7) receiving health services (Y/N)
Independent Variable #1: Functional Ability	Q3: What are the predictors of health? What are the predictors of health service utilization?	Section A (Q8, Q11) having a caregiver (Y/N), frequency of leaving apartment; Section Section B (Q7) receiving health services (Y/N)
Independent Variable #2: Well-Being	Q3: What are the predictors of health?	Section A (Q15, Q16, Q17, Q18) free-time, boredom, control over lifestyle, life satisfaction (10-point Likert type scale)

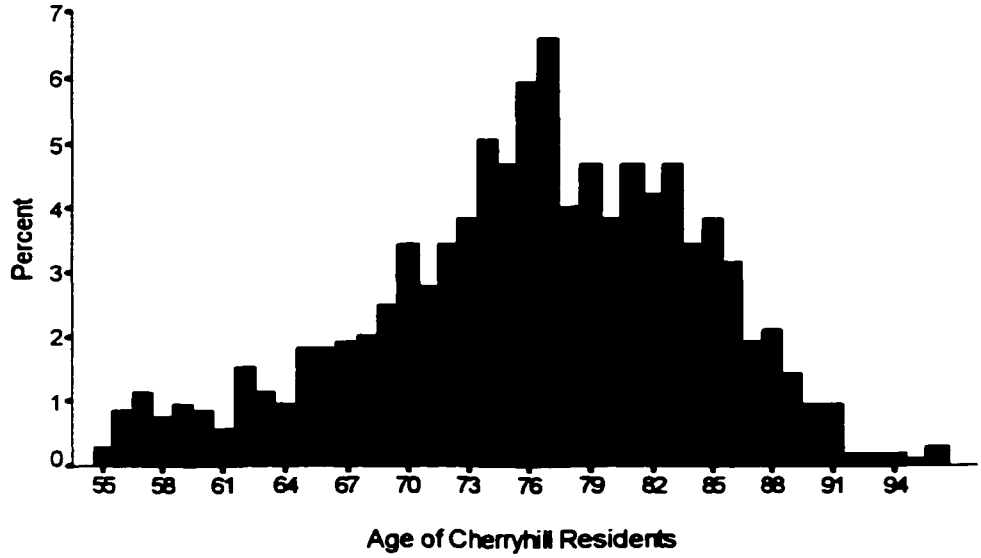
Table 4.1

Continued

Variable	Research Question	Item on Phase I Community Survey
Independent Variable #3: Sense of Community	Q3: What are the predictors of health? What are the predictors of health service utilization?	Section B (Q3) to what extent feel part of the community (10-point Likert-type scale)
Independent Variable #4: Age	Q3: What are the predictors of health? What are the predictors of health service utilization?	Section A (Q3) age
Independent Variable #5: Knowledge of Health Service System	Q3: What are the predictors of health service utilization?	Section B (Q5) difficulty getting satisfactory answers to health questions (5-point Likert type scale)

Figure 4.1

Age and Population Distribution of Cherryhill Residents



in the community longest (14+ years). Those participants aged 55 or over ranged in age from 55 to 96 years. Marital status varied from being single (9%), widowed (53%), separated (3%), married (25%), divorced (9%), to common-law (1%). Seventy-one percent of respondents lived alone. With respect to those who had live-in companions, 25% lived with their spouse, 2% lived with other family members, and 2% lived with friends. Twenty-one percent of participants reported having a caregiver or helper. Caregivers included family members or relatives (20%), friends (11%), health professionals (49%) and others (20%). Eleven percent of respondents reported that they were providing care to someone with whom they lived. The results suggest that Cherryhill residents' perception of their health declines steadily with age (Figure 4.2) and that once residents move into the Cherryhill community they tend to remain for a long time (Figure 4.3). Descriptive analyses, chi-square tests and t-tests of mean differences confirmed that the sub-samples of respondents who completed the C1 health version of the survey (n=345), C2 community version (n=334) and C3 Cherryhill Village Mall version (n=364) were highly similar (e.g, age; gender; marital status; length of time living in Cherryhill Village; etc.), and that the results of analyses for the sub-samples may be used to make inferences to the total sample. The results of the descriptive analyses, chi-square and t-tests are reported in Table 4.2.

Predictors of Health

Variables found by other researchers to influence health include functional ability, well-being, social resources, activity level, environmental factors, personality, socio-economic status and age (Table 2.1, pg. 25). The following variables had been included in the initial Community Survey and were examined as predictor variables of health in Phase I of this

Figure 4.2

Perceived Health of Cherryhill Residents by Age



n=95 n=299 n=489 n=160

Figure 4.3

Duration of Residency in Cherryhill Village by Age

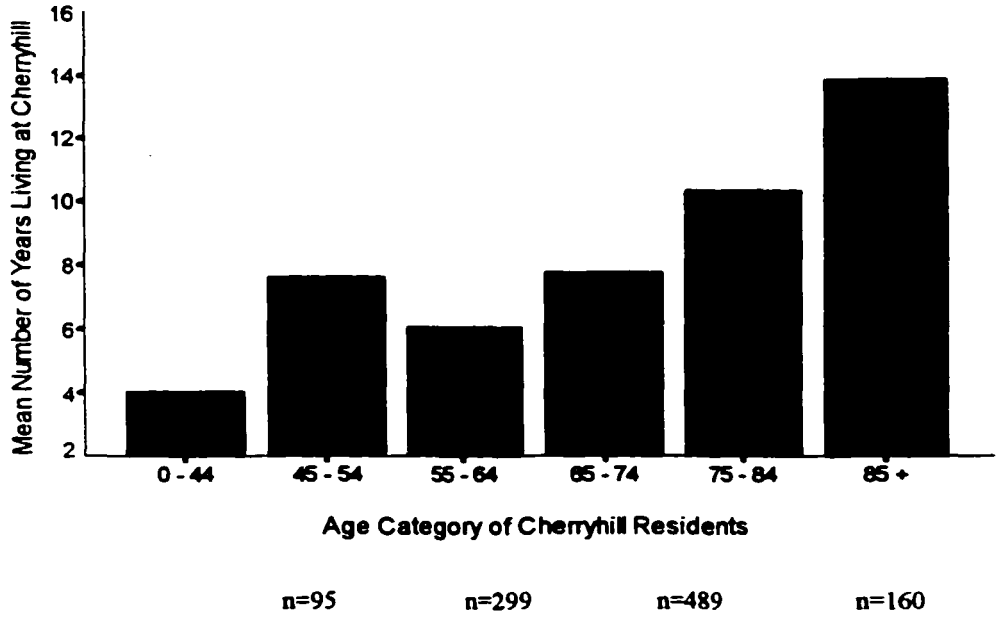


Table 4.2

Comparison of Sub-Sample Respondent Characteristics

Characteristics	C1: Health	C2: Community	C3: Mall
Sample Size (n)	345	334	364
Mean Age	76	77	76
S.D.	7.72	7.91	8.40
Sex			
Male	26%	18%	24%
Female	74%	82%	76%
Average Number of Years Living at Cherryhill	10	10	9
Marital Status			
Single	9%	9%	10%
Widowed	49%	58%	51%
Separated	4%	3%	3%
Married	29%	20%	26%
Divorced	8%	9%	10%
Common-Law	-	1%	-
Living Arrangements			
Alone	70%	75%	69%
With Spouse	28%	20%	26%
With Relatives	1%	3%	2%
With Friends	1%	2%	2%
Have a Caregiver or Helper			
Yes	19%	23%	22%
No	81%	77%	78%
Caring for Someone with Whom You Live			
Yes	12%	12%	10%
No	88%	88%	90%

study: (1) functional ability; (2) well-being; (3) activity level; (4) environment; and (5) age. Occupation, a socio-economic status indicator, was descriptive in nature and not used in the analyses. There were no items in the Community Survey that measured social resources or personality factors.

Health. Measures of "subjective" and "objective" health were used. A subjective health index was created by summing the five items of the standardized M.O.S. short-form health perception scale. Three of the five items were recoded to ensure congruence with the other two items, with 1 = poor health to 5 = excellent health. The three items that were recoded were survey section A: (1) question 12 "health rating"; and (2) question 13 "healthy as anybody I know"; and (3) question 13 "my health is excellent". The internal consistency of the subjective health index as measured by Cronbach's Alpha Reliability Coefficient was 0.86. Objective health indicators included number of hospital admissions during the past six months, and number of physician and emergency room visits during the past year. Two of the three objective health questions (Section C1: Q6: number of hospital admissions and Section C1: Q10: number of emergency room visits) were also recoded to be consistent with the third health question (Section C1: Q7) physician visits, so that low scores indicate fewer visits to both hospital and emergency rooms and higher scores more frequent visits. These three objective health indicators were treated as three separate variables for data analyses.

Functional Ability. Community survey items measuring the respondents' level of functional ability include: (1) having a caregiver; (2) frequency of leaving apartment; and (3) receiving health services. Question 11, survey section A ("frequency of leaving apartment") was recoded to be consistent with the other two survey items, with lower scores implying

lower levels of functional ability. These three functional ability indicators were treated as three separate variables.

Well-Being. The construct of well-being was captured by community survey questions 17 ("control over lifestyle") and 18 ("life satisfaction") in section A. Question 17 (section A) was recoded to be consistent with question 18 (section A) with lower scores implying less control and less satisfaction.

Sense of Community & Environment. One community survey item, section B, question 3 ("to what extent do you feel a part of the Cherryhill community") was used to examine the influence of respondents' living environment.

Data Analyses

Exploratory factor analysis with varimax rotation was used to examine whether potential predictor items on the survey represented common underlying factors consistent with major known variables identified as predictors of health by other researchers (e.g., functional ability; well-being; social resources; activity level; environment). Input variables included: (1) having a caregiver; (2) frequency of leaving apartment; (3) receiving health services; (4) free time; (5) boredom; (6) life satisfaction; (7) control over lifestyle; and (8) sense of community (see Table 4.1). It has been argued by gerontology researchers (Birren & Schaie, 1977) that age has little explanatory power as an independent variable due to the cumulative effects of pathology evident in all aging individuals, and as such was excluded from the factor analysis. The exploratory factor analysis supported a 2-factor structure: (1) well-being and (2) functional ability (see Table 4.3). There were only two factors in the solution. All factor loadings exceeded the .60 level for Factor 1 and the .55 level for Factor

Table 4.3

Factor Analysis of Health and Health Service Utilization Predictor Variables Measured by the Community Survey

Measure and Variable	Factor I (Well-Being)	Factor 2 (Functional Ability)	Communality
WELL-BEING			
Sense of community	.63	-.10	.41
Free time	.60	.15	.39
Boredom	.70	.16	.52
Control over lifestyle	.64	.39	.56
Life satisfaction	.73	.23	.58
FUNCTIONAL ABILITY			
Having a caregiver	.08	.86	.75
Frequency of leaving the apartment	.42	.55	.47
Receiving health services	.09	.84	.71

2, both factors having Eigenvalues greater than 1.00. The SPSS factor analysis program was then used to calculate factor scores based on the well-being factor and the functional ability factor.

Bi-variate correlational analyses were used to identify: (1) the inter-correlations among the predictor variables; and (2) the predictors of health (Tables 4.4 and 4.5). Subjective health, as measured by the health index, was treated as the dependent variable. Three independent variables well-being (Factor 1), functional ability (Factor 2) and age were used. Age was included as an independent variable for the correlational analyses to confirm the directional hypothesis that health is negatively correlated with age. Tables 4.4 and 4.5 show the relationships between these variables. Elderly individuals who perceived themselves as being healthier visited their physicians less often ($r = -.37$, $p \leq .001$), had fewer hospital admissions ($r = -.25$, $p \leq .01$) and had fewer visits to the emergency room ($r = -.27$, $p \leq .001$) than those who perceived themselves as being less healthy. Individuals who reported higher levels of well-being were also functioning better (i.e., reported fewer limitations in their daily activity)($r = .46$, $p \leq .001$) than those who reported lower levels of well-being. Age was also negatively correlated with both well-being and functional ability. The younger the individual, the higher their level of well-being ($r = -.12$, $p \leq .01$) and functional ability ($r = -.29$, $p \leq .001$). Individuals who visited their physicians more often also had more hospital admissions ($r = .16$, $p \leq .01$) and a greater number of visits to the emergency room ($r = .23$, $p \leq .001$). Those who were admitted to hospital more often also had more visits to the emergency room ($r = .32$, $p \leq .001$).

Consistent with known predictor variables of health reported by other researchers,

Table 4.4

Inter-Correlations Among Subjective and Objective Health Variables

Variables	Subjective Health	Physician Visits	Hospital Admissions	Emergency Visits
Subjective Health	--	-.37***	-.25**	-.27***
Physician Visits		--	.16**	.23***
Hospital Admissions			--	.32***
Emergency Visits				--

** $p \leq .01$
*** $p \leq .001$

Table 4.5

Correlations Among Known Predictor Variables of Health

	Subjective Health	Objective Health		
	Health Index	Physician Visits	Hospital Admissions	Emergency Visits
Well-Being (Factor 1)	.54***	-.06	-.04	-.08
Functional Ability (Factor 2)	.44***	-.17**	-.18**	-.15**
Age	-.21***	.08	.01	.01

** $p \leq .01$
*** $p \leq .001$

subjective health was correlated with well-being (Factor 1) r = .54, p<.001, functional ability (Factor 2) r = .44, p<.001 and age r = -.21, p<.001. Objective health indicators also correlated with functional ability (Factor 2) (physician visits, r = -.17, p=.003; hospital admissions, r = -.18, p=.002; emergency room visits, r = -.15, .003) but were not significantly correlated with well-being (Factor 1) or age.

Predictors of Health Service Utilization

Variables found by other researchers to influence health service utilization include health, functional ability, social resources, environmental factors, socio-economic status, age, and knowledge of the health service system (Table 2.1, pg. 25). The following variables were measured in the initial Community Survey and were examined as predictor variables for Cherryhill residents over the age of 55 years who used health services versus those who did not: (1) subjective health; (2) having a caregiver; (3) frequency of leaving the apartment; (4) sense of community; (5) difficulty in accessing the health system; and (6) age. Socio-economic status and social resource items were not included in the initial Cherryhill Community Survey. Knowledge of the health service system was assessed with Community Survey section B, question 5 ("how difficult is it to get satisfactory answers to your health questions"). This question was recoded so that low scores imply difficulty getting answers and high scores indicate that it was easy to get answers. This is consistent with the health and functional ability indices where higher scores imply better health and functional ability.

Data Analyses

Univariate analyses were used to examine the predictors of the dichotomous dependent variable "health service utilization". Cross-tabs analyses with chi-square tests were

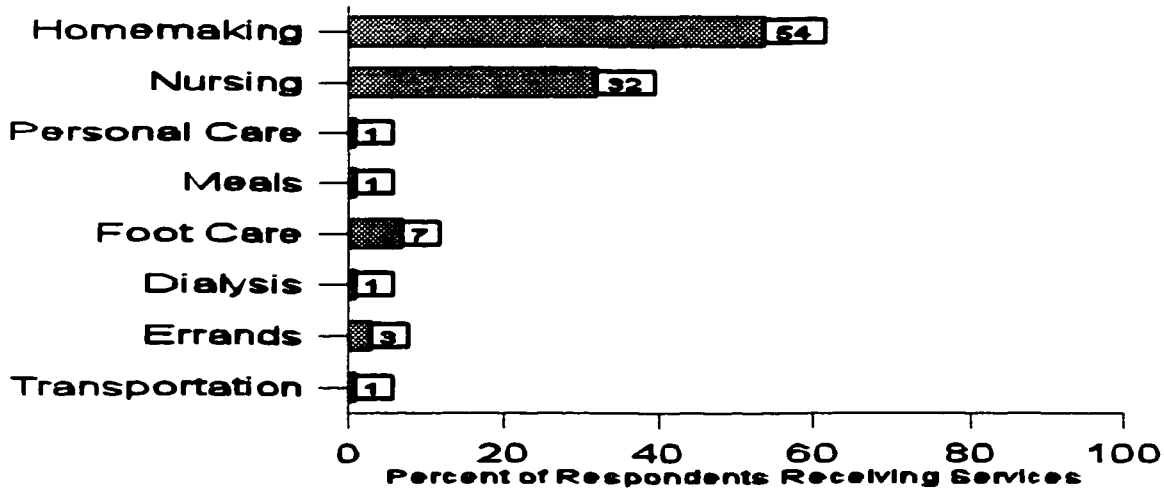
used for categorical variables and t-tests were used to examine mean differences for continuous variables.

Of the total sample of respondents 55 years of age or older (n=1043), 236 individuals (24%) were receiving health services. Sixty percent of respondents receiving health services also reported having a caregiver. Health services the respondents were receiving, and the agencies providing health services are outlined in Figures 4.4, 4.5, 4.6 and 4.7. Respondents answered Question 7 (Section B) "what services are you receiving" in two different ways. The majority of respondents listed actual services (e.g., nursing; footcare; personal care; etc.), however, others listed the agencies providing the services (e.g., MedCare; Red Cross; HomeCare; etc.). Each of the agencies listed provide a wide range of services, thus agencies listed were separated from services listed and each examined individually. This separation was done for each of the five response options (e.g., health service 1; health service 2; health service 3; health service 4; health service 5). Results show that homemaking services such as cleaning, laundry and vacuuming (54%) and nursing (32%) were being received by many respondents. Agencies most frequently listed as providing health services are HomeCare Health Services, Para Med Health Services and MedCare Health Services.

Cross-tabs analyses with chi-square tests were used to examine the categorical variables. Two-way contingency table analyses were conducted to evaluate whether Cherryhill residents receiving health services and those not receiving health services differed in number of visits to emergency rooms, admissions to hospital and having a caregiver (Table 4.6). Health service utilization and having a caregiver were found to be significantly related (chi- square = 268.49, $p \leq .0001$, df=1, n=992). Sixty percent of individuals receiving health

Figure 4.4

Number One Health Service Cherryhill Residents Reported Receiving and Agencies Providing Those Services



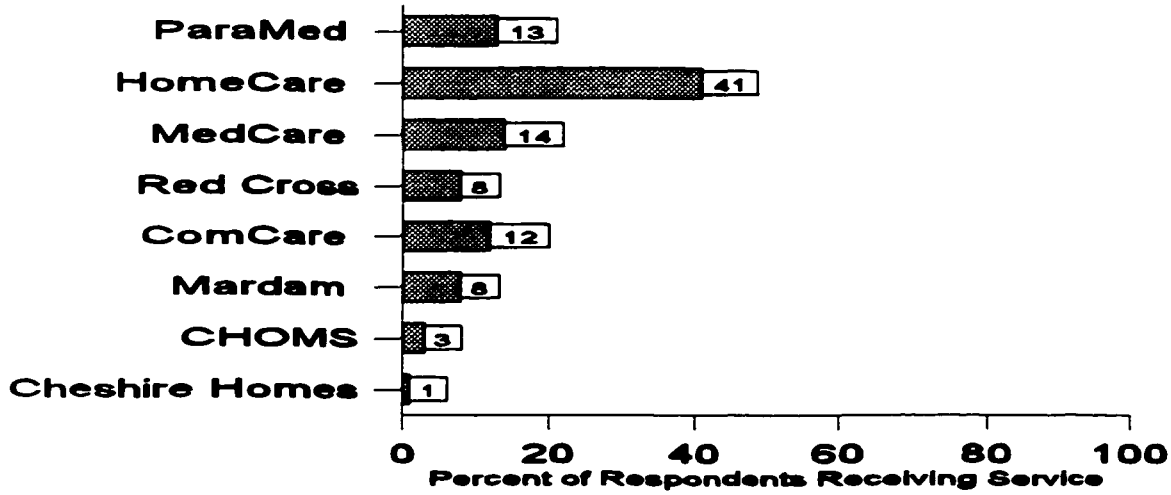
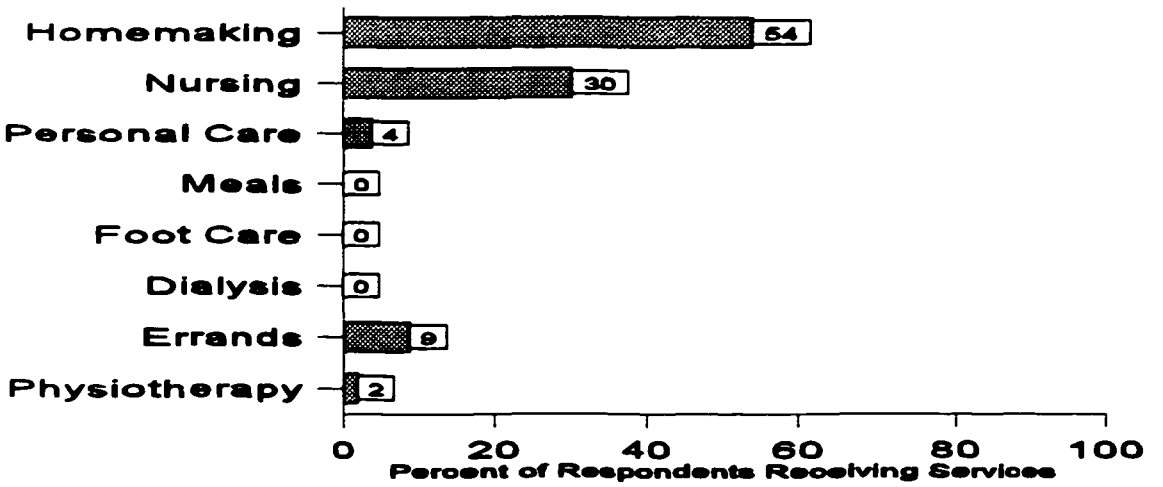


Figure 4.5

Second Health Service Cherryhill Residents Reported Receiving and Agencies Providing Those Services



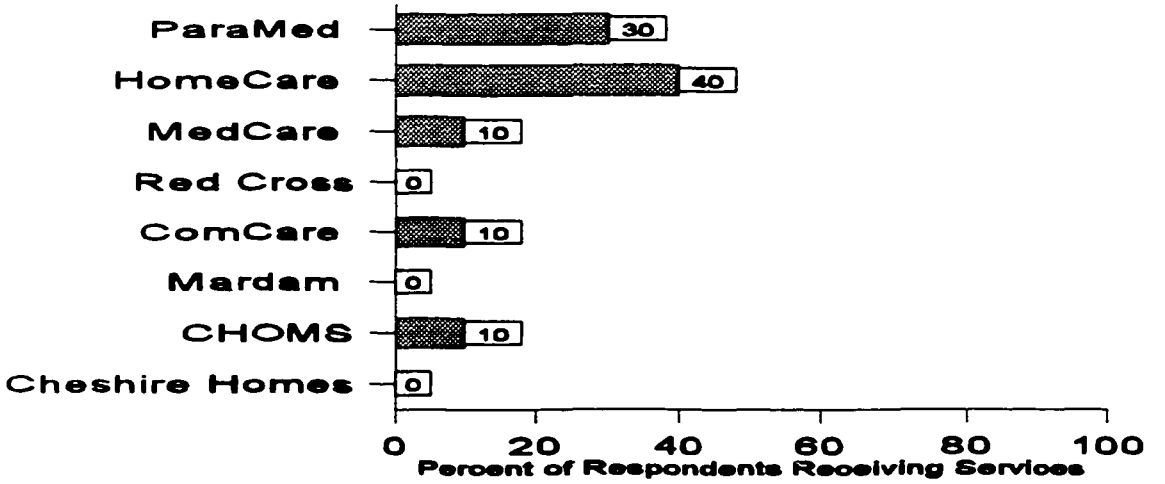


Figure 4.6

Third Health Service Cherryhill Residents Reported Receiving

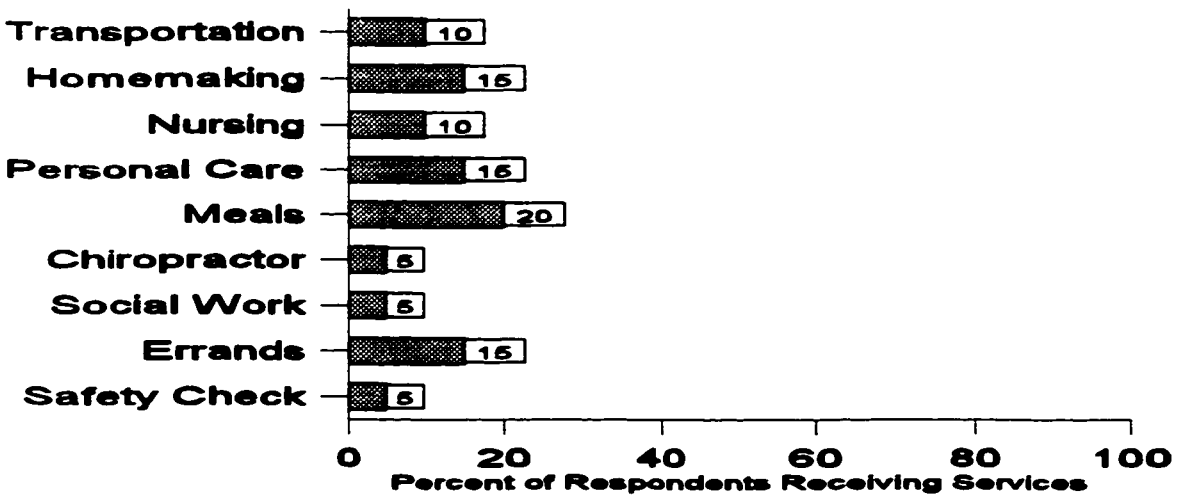


Figure 4.7

Fourth Health Service Cherryhill Residents Reported Receiving

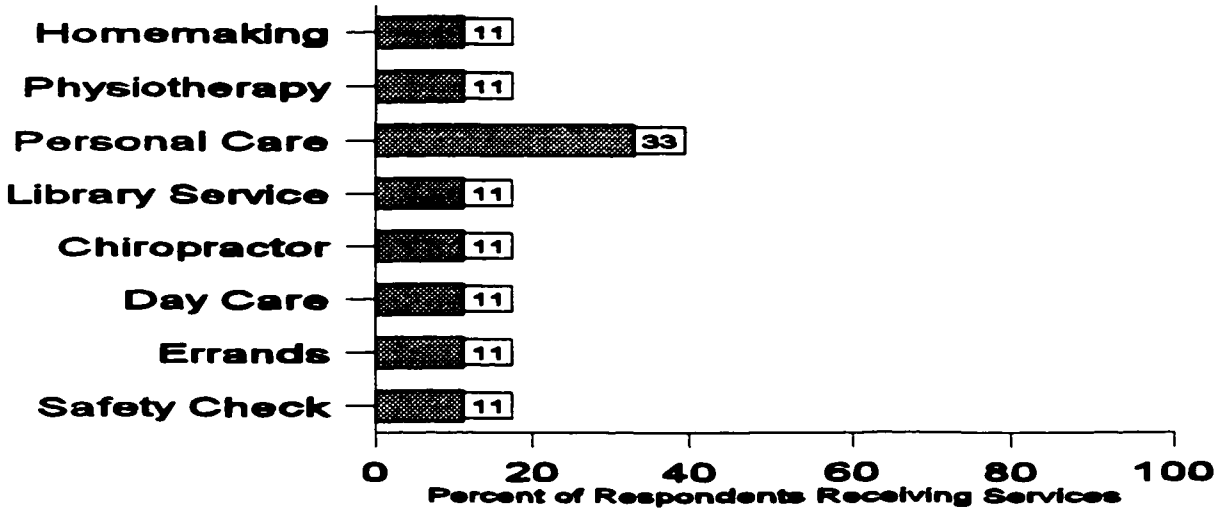


Table 4.6

Contingency Table Results for Categorical Variables

Potential Predictor Variables	N	Receiving Health Services	Not Receiving Health Services
Having a Caregiver	1043		
Yes		60%	10%
No		40%	90%
Hospital Admissions	345		
Yes		19%	8%
No		81%	92%
Emergency Room Visits	345		
Yes		28%	14%
No		72%	86%

services had a caregiver, whereas 10% of those not receiving health services had a caregiver. Health service utilization and hospital admissions during the past six months were also found to be significantly related (chi-square = 7.24, $p \leq .007$, df=1, n=325). Nineteen percent of Cherryhill residents receiving health services had been admitted to hospital during the previous six months compared to 8% of the residents not receiving health services. Likewise, health service utilization and visits to emergency rooms during the past year were found to be significantly related (chi-square = 7.18, p=.007, df=1, n=322). Twenty-eight percent of residents receiving health services visited the emergency room as compared to 14% for those not receiving services.

Independent samples t-tests were conducted to examine the relationships between the continuous predictor variables and health service utilization. Subjective health and health service utilization were found to be significantly related, $t(472) = 5.62$, $p \leq .001$. Cherryhill residents receiving health services perceive themselves as being in poorer health (M=15.42, SD = 5.61) than did residents not receiving health services (M=18.59, SD=4.77) (Figure 4.8). Objective health (number of physician visits during the past year) and health service utilization were also found to be significantly related, $t(314) = -4.19$, $p \leq .001$. Residents receiving health services have more contact with their physician (M=3.52, SD=.84) than did residents not receiving health services (M=2.97, SD=.98) (Figure 4.9). Likewise, age and health service utilization were significantly related, $t(1004) = -5.11$, $p \leq .001$. Residents receiving health services were older (M=78.47, SD=7.9) than were those not receiving services (M=75.44, SD=7.98) (Figure 4.10). Frequency of leaving the apartment was significantly related to health service utilization $t(996)=10.14$, $p \leq .001$. Residents receiving health

Figure 4.8

Error Bar Chart Showing the Means and Standard Deviations of Subjective Health Ratings of Residents Not Receiving Health Services and Those Who Are Receiving Health Services

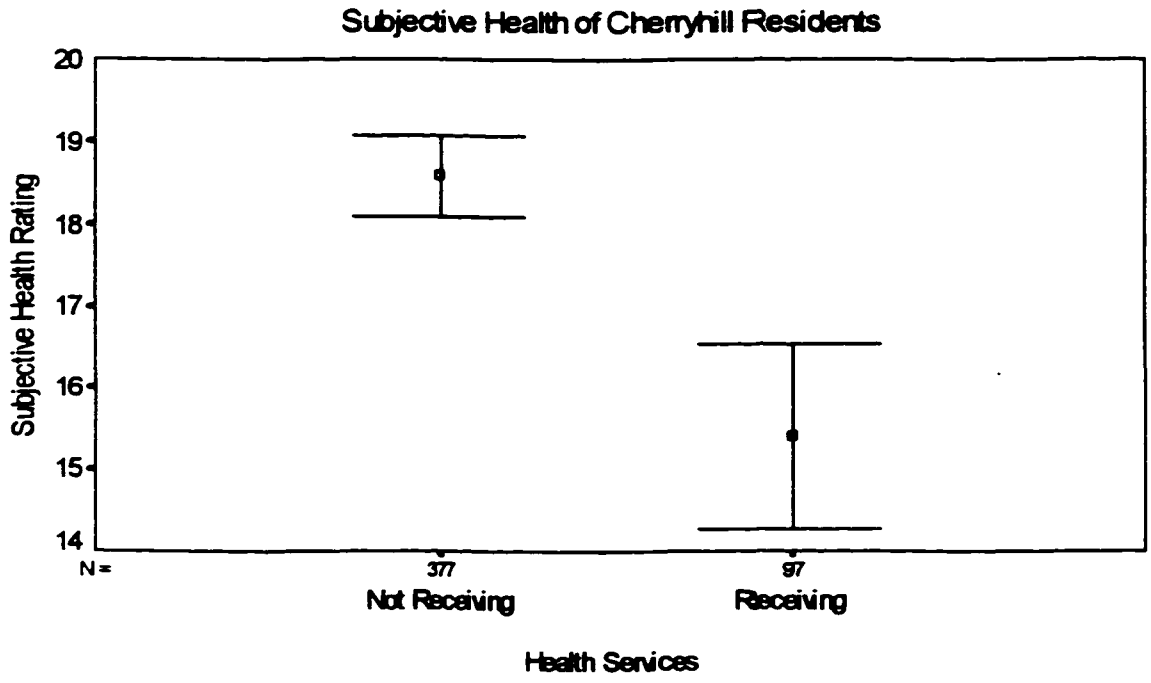


Figure 4.9

Error Bar Chart Showing the Means and Standard Deviations of Physician Visits of Residents Not Receiving Health Services and Those Who Are Receiving Health Services

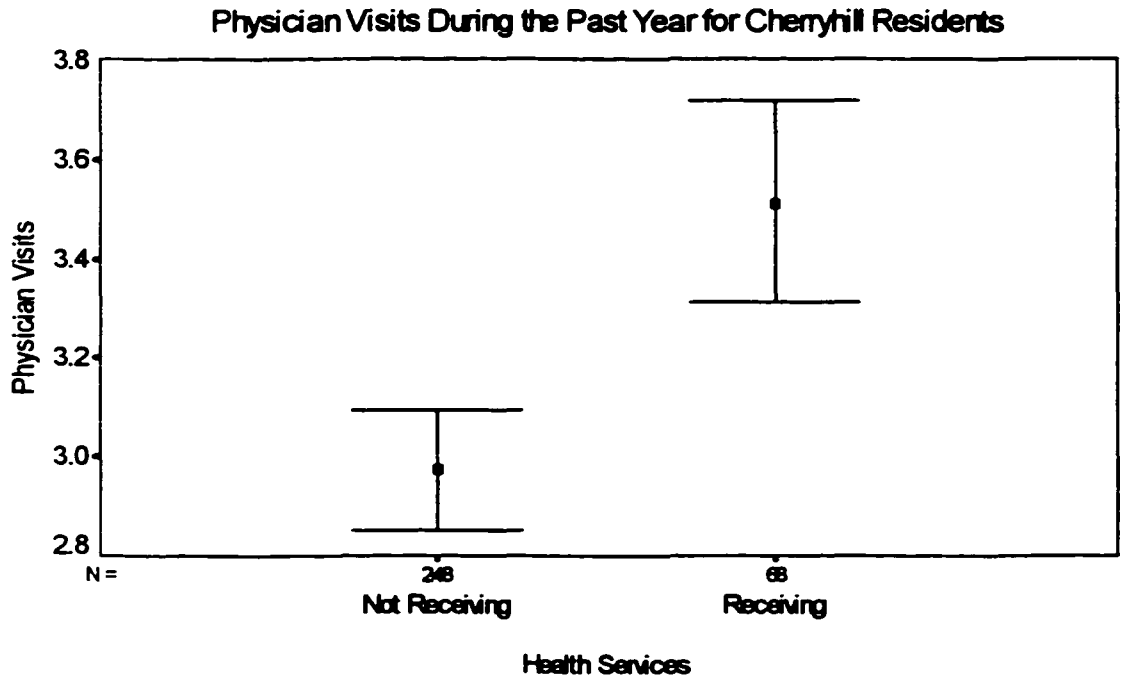
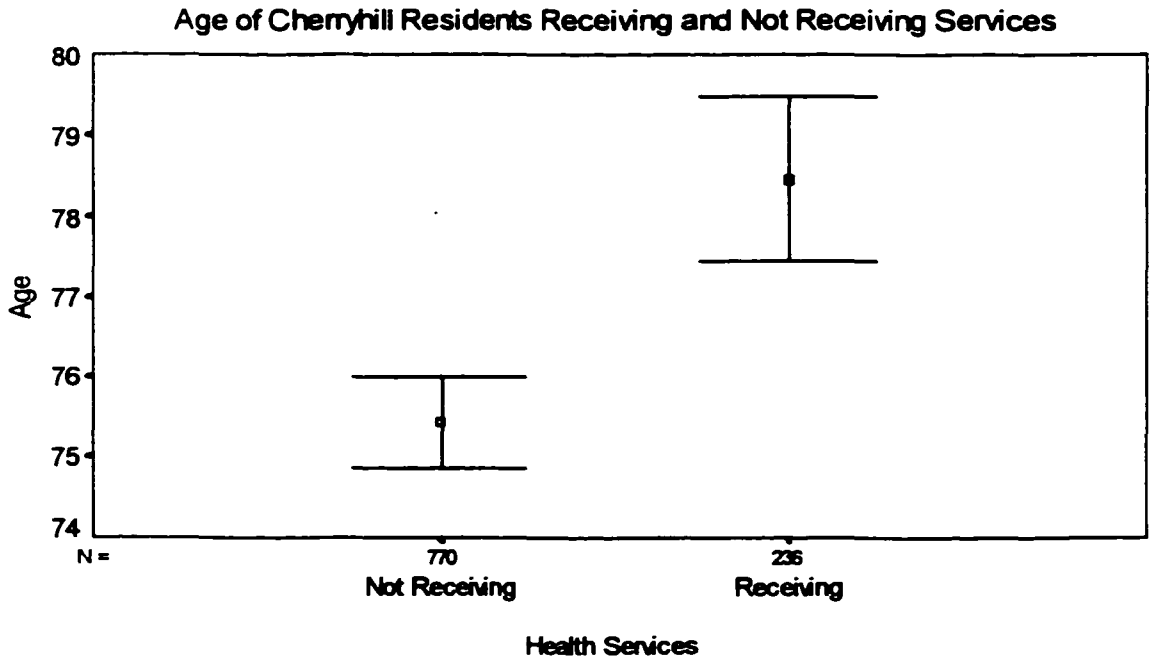


Figure 4.10

Error Bar Chart Showing the Means and Standard Deviations for Age of Residents Not Receiving Health Services and Those Who Are Receiving Health Services



services leave their apartment less frequently (M=6.97, SD=1.53) than did residents not receiving health services (M=7.71, SD=.73) (Figure 4.11). Difficulty getting satisfactory answers to health questions was significantly related to health service utilization, t(968)=2.58, p=.01. However, counter to what might be expected, those residents not receiving health services thought it was easier to get satisfactory answers to their health questions (M=4.36, SD=.92) than did residents receiving health services (M=4.18, SD=1.03), possibly because they may have fewer questions (Figure 4.12). Sense of community and health service utilization were not found to be significantly related, t(934)=.58, p=.56. Residents receiving health services (M=5.93, SD=2.87) and those not receiving health services (M=6.05, SD=2.61) similarly felt they were part of the Cherryhill community (Figure 4.13).

Conclusions

Results from the secondary analysis of the initial Cherryhill Community Survey used to identify predictors of health and health service utilization of elderly individuals are reasonably consistent with those reported by other researchers, thus suggesting the idea that it will be possible to generalize findings of the next phase of the study, Phase II, to other communities of elderly individuals to guide health related community action.

As in other studies, the predictors of subjective health included well-being, functional ability and age. Contrary to what others have found, age and well-being were not found to be predictors of objective health (e.g., physician visits; hospital admissions; visits to the emergency room) in the present study. Factors found to influence health service utilization in the present study were also consistent with the findings of other researchers. Subjective health, objective health, age, frequency of leaving the apartment, having a caregiver, and

Figure 4.11

Error Bar Chart Showing the Means and Standard Deviations of Frequency of Leaving the Apartment of Residents Not Receiving Health Services and Those Who Are Receiving Health Services

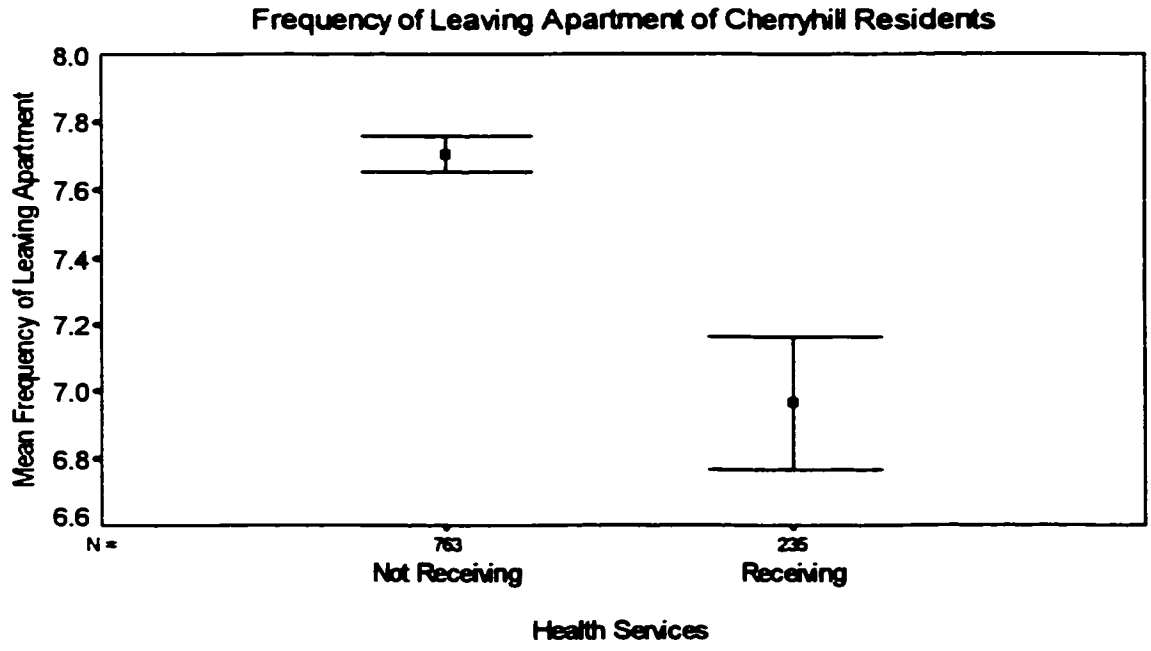


Figure 4.12

Error Bar Chart Showing the Means and Standard Deviations in Ease of Getting Satisfactory Answers to Health Questions of Residents Not Receiving Health Services and Those Who Are Receiving Health Services

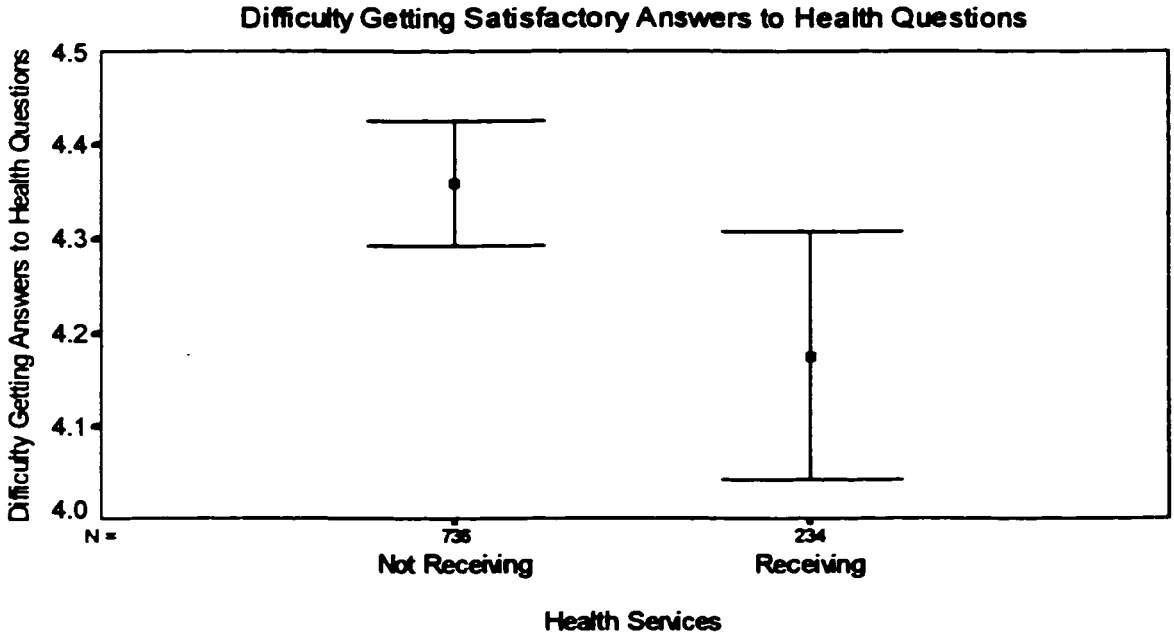
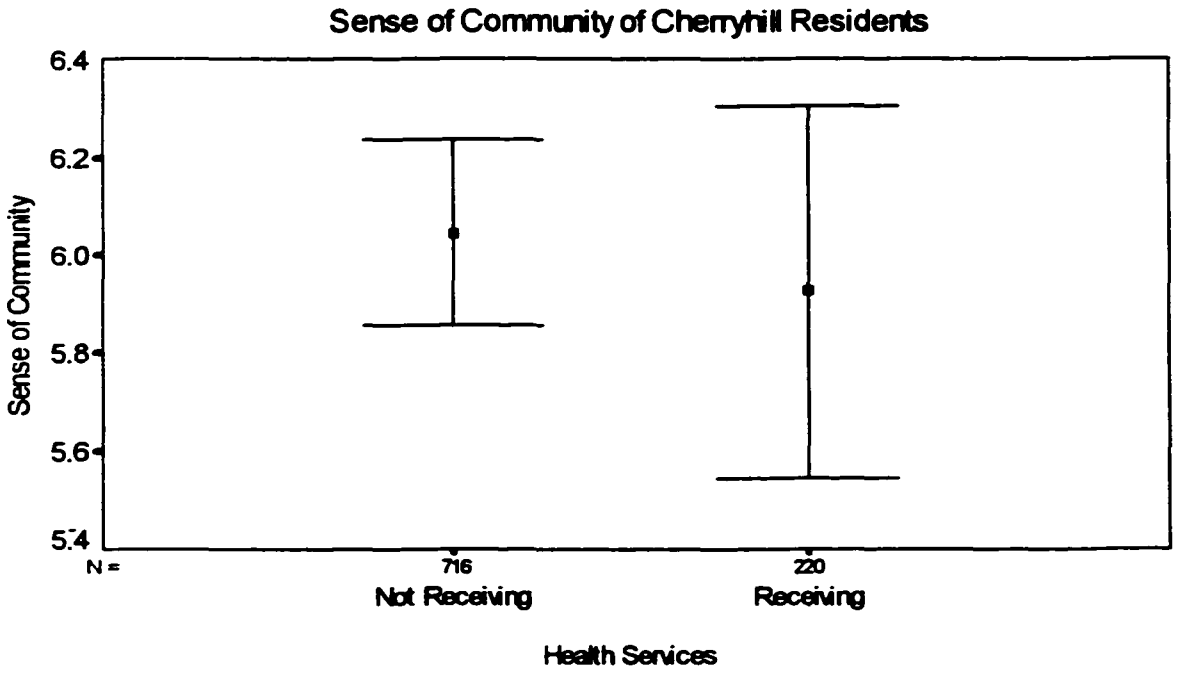


Figure 4.13

Error Bar Chart Showing the Means and Standard Deviations in Sense of Community of Residents Not Receiving Health Services and Those Who Are Receiving Health Services



difficulty getting satisfactory answers to health questions were all predictors of health service utilization by residents in the Cherryhill community. However, contrary to the findings of other researchers, "sense of community" or how much a part of their community residents feel, was not found to be a predictor of health service utilization. These issues will be further examined in the second phase of this study and discussed later.

In summary, the majority of Cherryhill residents participating in Phase I of this study were elderly women (mean age 76 years) living alone, who had lived in the Cherryhill community for an average of 10 years. Residents who were older perceived themselves to be less healthy, received a greater number of health services, reported more limitations in their daily activity and reported lower levels of well-being. These results are consistent with findings reported by other researchers who have studied different groups of elderly individuals and thus there is confidence in generalizing the findings of Phase II of the study to other communities of elderly individuals to guide health promotion and community enablement initiatives.

CHAPTER V

PHASE II RESULTS: DETERMINANTS OF INDIVIDUAL PARTICIPATION IN VOLUNTARY HEALTH-RELATED COMMUNITY ACTION

This chapter outlines results from the analyses of the health voluntarism survey (Appendix D) used in Phase II of the present study to determine predictors of health voluntarism and leadership in health voluntarism. Specifically, Phase II examines factors in the lives of Cherryhill residents which have an impact on health-related volunteer behaviour over which the individual, health professionals and community developers can have some influence. The following primary research questions have been investigated: (1) What are the predictors of health-related volunteer involvement and volunteer leadership of elderly individuals living in Cherryhill Village? (2) How are factors that can be modified through community development initiatives, for example, health, functional ability, well-being, activity level, social resources and physical and social environmental factors inter-related and how do these factors influence i) commitment to health voluntarism and ii) leadership in health voluntarism? (3) Are the relationships between these "modifiable" variables moderated by "non-modifiable" variables such as age, socio-demographic and personality variables? (4) Are the same factors involved in predicting health and health service utilization, and health

voluntarism and leadership for elderly Cherryhill residents.

All volunteers and individuals who had given their names to volunteer with the Cherryhill Community Project were contacted by the researcher and asked to complete the health voluntarism survey. Study eligibility and willingness of participants to complete the survey was determined. Three trained research assistants then followed up with, and interviewed, interested residents. A master list of telephone numbers for the 13 apartment buildings in the Cherryhill complex was obtained from the ESAM Corporation. The telephone numbers of all volunteers and individuals willing to volunteer were removed from the list. Ten telephone numbers of non-volunteers were then randomly selected for each of the 13 apartment buildings. Initial contact was made by the researcher to ensure study eligibility and willingness to participate. Following this contact, the three research assistants then completed the interviews with non-volunteers. A total of 21 volunteers, 86 individuals willing to volunteer and 74 non-volunteers completed the survey for a total sample of 181 (107 volunteers; 74 non-volunteers). There was a 100% response rate for volunteers, a 95% response rate for individuals willing to volunteer and a 65% response rate for non-volunteers. Twelve of the 105 individuals who made a commitment to volunteer were away in Florida for the winter and two others had moved out of the Cherryhill apartment complex. This left a "willing to volunteer" sample of 91. Of these 91, 86 individuals completed the health voluntarism survey and five refused. Of the 108 non-volunteers contacted 74 completed the survey and 34 refused. Reasons for refusal included being too busy, not having any health concerns or needs at this time, or simply not interested.

The following series of analyses were used to examine determinants of individual

participation in voluntary health-related community action: (1) descriptive analyses of the respondents of the total sample (n=181) were performed using parametric and non-parametric procedures; and (2) descriptive analyses, chi-square tests and t-tests were used to examine the characteristics of the two sub-samples of volunteers (n=21) and those who made a commitment to volunteer (n=86) to determine whether the characteristics of these two groups were similar enough so that they could be combined for statistical purposes as one group of "volunteers" (n=107). The results of the descriptive analyses, chi-square and t-tests confirmed that the two sub-samples (i.e., volunteers and those willing to volunteer) were highly similar and these two groups of respondents were combined as one group of individuals committed to volunteering (Table 5.1). Volunteers and individuals committed to volunteering were similar in age, gender, length of time living in the Cherryhill community, marital status, living arrangements, life changes, education and occupation. Due to the small sample size in the volunteer sub-sample (n=21) the eight education categories in question six of the survey (e.g., public school; high school; college; bachelor's degree; master's degree; Ph.D. or M.D.; other; no schooling) were recoded. There were no responses in three of the eight education categories (Ph.D. or M.D.; other; and no schooling) thus education was recoded into two categories: (1) *standard education* which included public and high school; and (2) *higher education* which included college and university (bachelor's and master's degrees). The percentages of respondents in each of these two categories are outlined in Table 5.1. Primary occupations of respondents were categorized using the National Occupation Classification Matrix (Statistics Canada, 1992) which categorizes occupations by skill level (type and amount of education necessary for employment) and skill type (type of

Table 5.1

Comparison of Volunteer and Willing to Volunteer Sub-Sample Respondent Characteristics

Characteristics	Volunteers	Willing to Volunteer
Sample Size (n)	21	86
Mean Age	74	74
S.D.	9.53	8.15
Sex		
Male	10%	11%
Female	90%	89%
Average Number of Years Living at Cherryhill	8	8
Marital Status		
Single	14%	12%
Widowed	57%	49%
Separated	5%	6%
Married	14%	15%
Divorced	10%	17%
Common-Law	-	-
Living Arrangements		
Alone	81%	79%
With Spouse	14%	15%
With Relatives	5%	2%
With Friends	-	4%
Education		
Standard	90%	82%
Higher	10%	18%
Sufficient Income		
Mean	4.4	3.7
S.D.	.92	1.28
Occupational Skill Level		
Management	-	1%
University Degree	11%	11%
Community College	26%	30%
1-4 years Secondary School	53%	42%
Up to 2 years Secondary School	5%	11%
Housewife	5%	5%

Table 5.1

continued

Characteristics	Volunteers	Willing to Volunteer
Sample Size (n)	21	86
Recent Life Changes in the Past Year		
Retired		
Yes	0%	3%
No	100%	97%
Lost a Child		
Yes	5%	2%
No	95%	98%
Lost a Friend		
Yes	29%	37%
No	71%	63%
Lost a Spouse		
Yes	0%	2%
No	100%	98%
Moved		
Yes	19%	8%
No	81%	92%
Diagnosed with a Major Illness		
Yes	14%	16%
No	86%	84%
Required to Provide Primary Care to a Family Member		
Yes	5%	8%
No	95%	92%

work or duties performed). The occupation matrices for the total sample and sub-samples are outlined in Tables 5.2, 5.3 and 5.4. The distribution of volunteers and those willing to volunteer across the different occupational skill levels was similar, chi-square = 1.20, p=.945, df=5, n=103. The "volunteer" and "willing to volunteer" groups were similar on all variables except their assessment of the adequacy of their income to meet their needs, where there was a small but significant difference, t(105)=2.25, p=.03 (Figure 5.1). Volunteers reported having more income to do the things they want to do (M=4.38, SD=.92) than individuals who made a commitment to volunteer (M=3.71, SD=1.28). Given the fact that nine comparisons were made between these two groups, finding a difference in one variable with a small mean difference was not surprising and therefore the groups were considered similar, and therefore were combined for further analyses.

Bi-variate correlation and multi-variate analyses were used to determine predictors of health-related volunteer involvement and volunteer leadership.

Socio-Demographic Differences Between Volunteers and Non-Volunteers

Analyses of the health voluntarism survey (n=181) revealed that 11% of the respondents were male and 89% female with a mean age of 74 years and standard deviation of $\pm$ 9.53. Participant ages ranged from 55 to 86 years. Respondents had lived in the Cherryhill community for an average of eight years (SD= $\pm$ 7.19 years). The number of years lived in the community ranged from one year to 25 years. Seventy-nine percent of the respondents were elderly women living alone. Marital status varied from being single (11%), widowed (54%), separated (4%), married (17%) to divorced (13%). Live-in companions varied from living alone (79%), with a spouse (17%), with other family members (3%) to

Figure 5.1

Error Bar Chart Showing the Means and Standard Deviations in Having Sufficient Income for Volunteers and Residents Willing to Volunteer

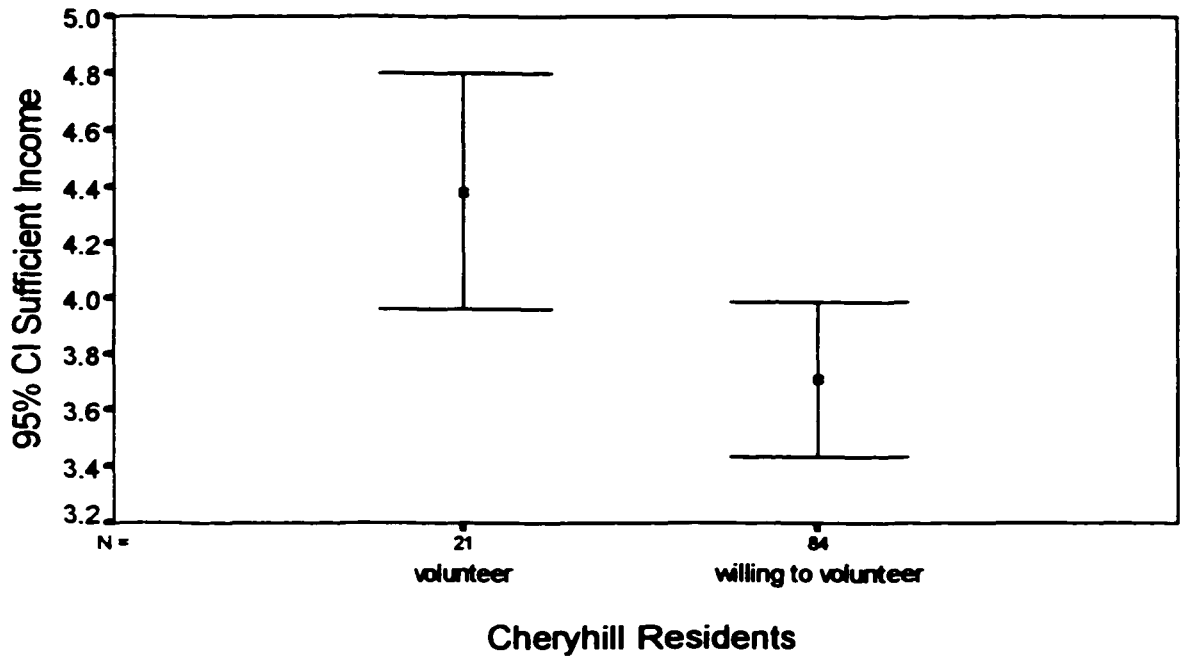


Table 5.2

Occupation Classification of the Total Study Sample (n=162) Using the Statistics Canada National Occupation Classification Matrix

	1 BUSINESS, FINANCE & ADMINISTRATION OCCUPATIONS (n = 67)	2 NATURAL & APPLIED SCIENCES & RELATED OCCUPATIONS (n = 2)	3 HEALTH OCCUPATIONS (n = 20)	4 OCCUPATIONS IN SOCIAL SCIENCE, EDUCATION, GOVERNMENT & RELIGION (n = 8)	5 OCCUPATIONS IN ART, CULTURE, RECREATION & SPORT (n = 2)	6 SALES & SERVICE OCCUPATIONS (n = 49)	7 TRADES, TRANSPORTATION & EQUIPMENT OPERATORS & RELATED (n = 9)	8 OCCUPATIONS UNIQUE TO PRIMARY INDUSTRY (n = 3)	9 OCCUPATIONS UNIQUE TO PROCESSING, MANUFACTURING & UTILITIES (n = 3)
MANAGEMENT OCCUPATIONS (n = 1)			1 director of nursing n = 1						
SKILL LEVEL A (n = 20)	1 finance auditor 1 accountant n = 2	1 engineer n = 1	8 nurse 1 dietitian n = 9	5 teacher 2 social worker n = 7	1 librarian n = 1				
SKILL LEVEL B (n = 39)	2 office supervisor 23 secretary 1 estate officer 1 office manager n = 27	1 draftsperson n = 1	1 x-ray technician n = 1	1 housing co-ordinator n = 1	1 graphic artist n = 1	2 insurance sales 1 civil service 2 sales supervisors 1 hardware store super. n = 6	1 construction worker 1 telephone operator n = 2		
SKILL LEVEL C (n = 79)	12 bookkeeper 26 clerical/general office n = 38		8 nursing assistant 1 hospital attendant n = 9			15 sales person 4 hairdresser 3 buyer 1 dry cleaning 1 travel agent 1 florist 2 jeweler 1 personnel n = 28	1 bus driver n = 1	3 farmer n = 3	
SKILL LEVEL D (n = 23)						2 waitress 4 housekeeper 5 cashier 1 security guard 1 babysitter 2 bldg. superintendents n = 15	4 factory worker 1 military n = 5		3 factory worker n = 3

Skill Level A: university degree - bachelor's, master's or post-graduate degree

Skill Level B: 2-3 yrs. post-secondary education at community college or institute of technology or 2-4 yrs. apprenticeship training or 3-4 yrs. secondary school and more than 2 yrs. of on-the-job training, training courses or specific work experience

Skill Level C: 1-4 yrs. secondary school education and up to 2 yrs. on-the-job training, training courses or specific work experience

Skill Level D: up to 2 years secondary school education and short work demonstration or on-the-job training

Note: 162 respondents completed this question (total sample = 181), 13 respondents listed their occupation as housewife and 6 respondents did not answer this question

Table 5.3

Occupation Classification of Cherryhill Community Project Volunteers (n=18) Using the Statistics Canada National Occupation Classification Matrix

	1 BUSINESS, FINANCE & ADMINISTRATION OCCUPATIONS (n = 10)	2 NATURAL & APPLIED SCIENCES & RELATED OCCUPATIONS (n = 0)	3 HEALTH OCCUPATIONS (n = 2)	4 OCCUPATIONS IN SOCIAL SCIENCE, EDUCATION, GOVERNMENT & RELIGION (n = 2)	5 OCCUPATIONS IN ART, CULTURE, RECREATION & SPORT (n = 1)	6 SALES & SERVICE OCCUPATIONS (n = 2)	7 TRADES, TRANSPORTATION & EQUIPMENT OPERATORS & RELATED (n = 0)	8 OCCUPATIONS UNIQUE TO PRIMARY INDUSTRY (n = 1)	9 OCCUPATIONS UNIQUE TO PROCESSING, MANUFACTURING & UTILITIES (n = 0)
MANAGEMENT OCCUPATIONS (n = 0)									
SKILL LEVEL A (n = 2)				2 social worker n = 2					
SKILL LEVEL B (n = 3)	1 clerical supervisor 1 secretary n = 2				1 graphic artist n = 1				
SKILL LEVEL C (n = 13)	4 bookkeeper 4 clerical/general office n = 8		1 nursing assistant 1 hospital attendant n = 2			1 travel agent n = 1		1 farmer n = 1	
SKILL LEVEL D (n = 1)						1 bldg. superintendent n = 1			

Skill Level A: university degree - bachelor's, master's or post-graduate degree
Skill Level B: 2-3 yrs. post-secondary education at community college or institute of technology or 2-4 yrs. apprenticeship training or 3-4 yrs. secondary school and more than 2 yrs. of on-the-job training, training courses or specific work experience
Skill Level C: 1-4 yrs. secondary school education and up to 2 yrs. on-the-job training, training courses or specific work experience
Skill Level D: up to 2 years secondary school education and short work demonstration or on-the-job training

Note: 18 volunteers completed this question (total volunteer sample = 21), 1 volunteer listed her occupation as a housewife and 2 volunteers did not answer this question

Table 5.4

Occupation Classification of Cherryhill Residents Willing to Volunteer (n=79) Using the Statistics Canada National Occupation Classification Matrix

	1 BUSINESS, FINANCE & ADMINISTRATION OCCUPATIONS (n = 35)	2 NATURAL & APPLIED SCIENCES & RELATED OCCUPATIONS (n = 1)	3 HEALTH OCCUPATIONS (n = 10)	4 OCCUPATIONS IN SOCIAL SCIENCE, EDUCATION, GOVERNMENT & RELIGION (n = 3)	5 OCCUPATIONS IN ART, CULTURE, RECREATION & SPORT (n = 0)	6 SALES & SERVICE OCCUPATIONS (n = 22)	7 TRADES, TRANSPORTATION & EQUIPMENT OPERATORS & RELATED (n = 4)	8 OCCUPATIONS UNIQUE TO PRIMARY INDUSTRY (n = 1)	9 OCCUPATIONS UNIQUE TO PROCESSING, MANUFACTURING & UTILITIES (n = 3)
MANAGEMENT OCCUPATIONS (n = 1)			1 director of nursing n = 1						
SKILL LEVEL A (n = 9)	1 finance auditor 1 accountant n = 2	1 engineer n = 1	4 nurse n = 4	2 teacher n = 2					
SKILL LEVEL B (n = 22)	13 secretary 1 office manager n = 14		1 x-ray technician n = 1	1 housing co-ordinator n = 1		2 sales supervisor 1 insurance sales 1 hardware store supv. n = 4	1 construction worker 1 telephone operator n = 2		
SKILL LEVEL C (n = 30)	5 bookkeeper 14 clerical/general office n = 19		4 nursing assistant n = 4			1 florist 5 sales person 2 buyer 2 jeweler 2 hairdresser 1 personnel n = 13	1 bus driver n = 1	1 farmer n = 1	
SKILL LEVEL D (n = 9)						1 babysitter 3 cashier 1 bldg. superintendent n = 5	1 military n = 1		3 factory worker n = 3

Skill Level A: university degree - bachelor's, master's or post-graduate degree
Skill Level B: 2-3 yrs. post-secondary education at community college or institute of technology or 2-4 yrs. apprenticeship training or 3-4 yrs. secondary school and more than 2 yrs. of on-the-job training, training courses or specific work experience
Skill Level C: 1-4 yrs. secondary school education and up to 2 yrs. on-the-job training, training courses or specific work experience
Skill Level D: up to 2 years secondary school education and short work demonstration or on-the-job training

Note: 79 residents willing to volunteer completed this question (total "willing to volunteer" sample = 86), 5 listed their occupation as housewife and 2 did not answer this question

living with a friend (2%). Fifty-seven percent of the respondents reported high school as the highest level of education attained. Other education levels attained varied from public school (23%), college (16%), university bachelor's degree (3%) to university master's degree (2%). Eight percent of the respondents did not feel they had sufficient income to do the things they wanted, 6% felt that often they do not have sufficient income, 18% stated that with careful planning they sometimes have enough, 34% reported that with careful planning they usually have sufficient income, 21% reported they usually have sufficient income, while 12% reported they have more than enough income to do what they wish. The results of the descriptive analyses, chi-square and t-tests for the total sample (n=181), the volunteer sub-sample (n=107) and the non-volunteer comparative group (n=74) are outlined in Tables 5.5 and 5.6. These results indicate that volunteers and non-volunteers were highly similar with regard to demographic and socio-economic characteristics such as gender, marital status, length of time living in the Cherryhill community, living arrangements, education, income, occupational skill level and recent life changes experienced. Volunteers, however, were younger (M=74 years, SD=8.39) than non-volunteers (M=78 years, SD=8.12), t(180)=-2.82, p=.005(Figure 5.2). These results are consistent with the reasons for not volunteering given by the non-volunteers.

Health and Health Service Utilization Differences Between Volunteers and Non-Volunteers

Health. Both the subjective and objective health of the respondents was measured. Subjective health was measured using the 5-item M.O.S. health perception scale (Stewart, Hays & Ware, 1988), along with a general question asking respondents whether they had been told by their doctor that they had any health conditions. As with Phase I analyses, a

Table 5.5

Socio-Demographic Differences of Total Sample, Volunteer and Non-Volunteer Respondents

Characteristics	Total Sample	Volunteers (Combined Group)	Non-Volunteers
Sample Size (n)	181	107	74
Mean Age	76	74	78
S.D.	8.45	8.4	8.12
Sex			
Male	11%	10%	12%
Female	89%	90%	88%
Average Number of Years Living at Cherryhill	9	8	10
Marital Status			
Single	11%	12%	10%
Widowed	54%	50%	59%
Separated	4%	6%	3%
Married	17%	15%	20%
Divorced	13%	17%	8%
Common-Law	-	-	-
Living Arrangements			
Alone	79%	79%	78%
With Spouse	16%	15%	19%
With Relatives	3%	3%	3%
With Friends	2%	3%	-
Education			
Standard	79%	84%	73%
Higher	21%	16%	27%
Sufficient Income			
Mean	3.9	3.9	4.0
S.D.	1.4	1.2	1.5
Occupational Skill Level			
Management	1%	1%	-
University Degree	12%	11%	15%
Community College	26%	29%	20%
1-4 years Secondary School	41%	43%	36%
Up to 2 years Secondary School	13%	10%	18%
Housewife	7%	6%	10%

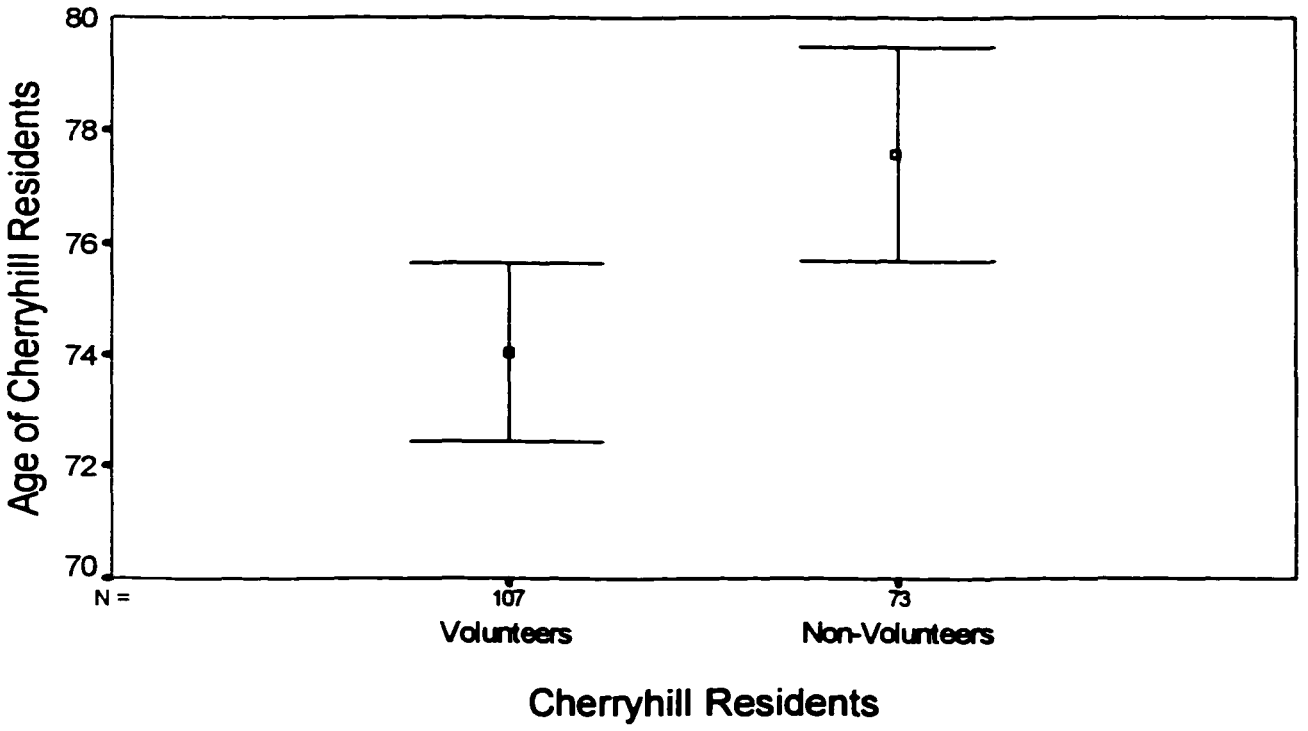
Table 5.6

Recent Life Changes Experienced by the Total Sample, Volunteer and Non-Volunteer Respondents

Characteristics	Total Sample	Volunteers (Combined Group)	Non-Volunteers
Sample Size (n)	181	107	74
Recent Life Changes in the Past Year			
Retired			
Yes	2%	3%	1%
No	98%	97%	99%
Lost a Child			
Yes	3%	3%	4%
No	97%	97%	96%
Lost a Friend			
Yes	38%	36%	41%
No	62%	64%	59%
Lost a Spouse			
Yes	3%	2%	5%
No	97%	98%	95%
Moved			
Yes	9%	10%	7%
No	91%	90%	93%
Diagnosed with a Major Illness			
Yes	18%	16%	22%
No	82%	84%	78%
Required to Provide Primary Care to a Family Member			
Yes	8%	7%	8%
No	92%	93%	92%

Figure 5.2

Error Bar Chart Showing the Means and Standard Deviations in Age of Cherryhill Community Project Volunteers and Non-Volunteers



subjective health index was created by summing the five items of the M.O.S. Two of the five items were negatively worded and recoded to ensure consistency with the other three items so that 1=poor health and 5=excellent health. Items that were recoded included question 28 "healthy as anybody I know" and "my health is excellent". The internal consistency of the health index as measured by Cronbach's Alpha Reliability Coefficient was 0.91. Cross-tabs analyses with chi-square tests were used for categorical variables and t-tests were used to examine mean differences for continuous health variables.

There were no differences in health conditions for volunteers and non-volunteers. This may be due to the many and varied range of conditions reported by both volunteers and non-volunteers (e.g., bad knee; arthritis; hearing problems; controlled high blood pressure; gall bladder operation; controlled high cholesterol; allergies; diabetes; shingles; asthma; osteoporosis; etc.). Likewise, there was no difference in perceived health reported by volunteers and non-volunteers, $t(179)=1.56$, $p=.12$. Volunteers ($M=18.65$, $SD=5.91$) and non-volunteers ($M=17.24$, $SD=6.13$) similarly reported a variety of health conditions that they were told they had by their physicians, chi square=4.70, $p=.10$, $df=2$, $n=179$.

Objective health was measured by the number of days in hospital and the number of physician visits the respondents had during the past 12 months, as well as how many times per week they had to call someone for help. There were no differences in the objective health of volunteers and non-volunteers, $t(179)=.54$, $p=.59$, $t(178)=-.16$, $p=.87$ and $t(74)= -1.12$, $p=.11$ respectively. Volunteers' days in hospital ($M=2.68$, $SD=8.26$) and non-volunteers' days in hospital ($M=2.02$, $SD=7.52$) were similar. Likewise the number of physician visits for volunteers ($M=6.77$, $SD=6.16$) and non-volunteers ($M=6.93$, $SD=6.10$) were similar; as

were the number of calls for help per week by volunteers (M=.06; SD=.30) and non-volunteers (M=.52, SD=3.57).

Health Service Utilization. Non-volunteers reported receiving a greater number of health services than did volunteers (chi-square=12.49, p=.002, df=2, n=181). Forty nine percent of non-volunteers reported receiving health services whereas only 25% of volunteers reported receiving health services. Of the health services received (Table 5.7) non-volunteers required significantly more assistance with light house cleaning than volunteers (chi-square=7.68, p=.005, df=1, n=181).

Functional Ability Differences Between Volunteers and Non-Volunteers

A significant difference in the day-to-day functioning of volunteers and non-volunteers was found, t(175)=-2.58, p=.01. Non-volunteers reported more limitations in their daily activity (M=2.60, SD=1.21) than did volunteers (M=2.12, SD=1.21). Sixty-two percent of non-volunteers reported being somewhat to extremely limited in their daily activities compared to 47% of the volunteer sample (Table 5.8). Non-volunteers reported arthritis (17%), back problems (11%) and fatigue (10%) as the primary daily function limiting conditions, whereas volunteers identified arthritis (15%), chronic pain (11%), heart problems (11%) and knee replacements (7%) (Table 5.9).

Well-Being Differences Between Volunteers and Non-Volunteers

The Short Happiness and Affect Research Protocol (SHARP) (Stones, Kozma, Hirdes, Gold, Arbuckle & Kalopack, 1996) was used to measure well-being. The 12 items of this scale were summed to create a single well-being score for volunteers and non-volunteers. Six if the 12 items of the scale were recoded to ensure congruence with the other

Table 5.7

Health Service Utilization Differences of Volunteers and Non-Volunteers

Health Services Received	Volunteers (Combined Group) (%)	Non-Volunteers (%)
Homemaking		
Light House Cleaning	14	31
Heavy House Cleaning	13	22
Laundry	11	11
Food Preparation	4	1
Personal Support		
Toileting	-	-
Grooming/Hygiene	1	1
Ambulation	-	-
Bathing	8	11
Dressing	-	3
Professional Services		
Nursing	8	7
Physiotherapy	2	3
Occupational Therapy	-	-
Speech/Language	-	-
Social Work	1	-
Nutrition	-	-
Support Services		
Shopping Assistance	8	11
Home Foot Care	4	10
Home Maintenance	2	1
Pastoral Care	-	-
Home Braille Instruction	-	-
Home Eye Care	-	-
Counselling	1	-
Meal Delivery	2	4
Oxygen Delivery	1	-
Friendly Visiting	2	7

Table 5.8

Percentage of Volunteers and Non-Volunteers Reporting Limitations in their Day-to-Day Functioning

Limitations Reported	Volunteers (Combined Group) (%)	Non-Volunteers (%)
Not at all Limited	48	26
Rarely Limited	6	12
Somewhat Limited	36	47
Often Limited	5	5
Extremely Limited	5	10

Table 5.9

Health Conditions Causing Functional Limitations as Reported by Volunteers and Non-Volunteers

Volunteers (Combined Group)		Non-Volunteers	
Health Condition	**Percent (%)**	**Health Condition**	**Percent (%)**
Arthritis	15	Arthritis	17
Chronic Pain	11	Back Problems	11
Heart Problems	11	Fatigue	10
Knee Replacement	7	Heart Problems	5
Fatigue	4	Mobility Problems	5
Mobility Problems	4	Hip Replacement	5
Hip Replacement	4	Hip Fracture	5
Hearing Problems	4	Balance Problems	5
Osteoporosis	2	Asthma	5
Osteoarthritis	2	Osteoporosis	3
Shortness of Breath	2	Osteoarthritis	3
Fibromyalgia	2	Knee Replacement	3
Other	30	High Blood Pressure	3
CVA		Vision Problems	3
Lupus		Memory Problems	2
Asthma		Dizzy Spells	2
Spinal Problem		Other	13
Obesity		Hearing	
Cancer		Crohn's Disease	
Neck Problem		Cancer	
Nerves		Chronic Pain	
Dizzy Spells		Aneurysm	
Polio		Depression	
Lung Problem		Emphysema	
Varicose Veins		Panic Attacks	
Irritable Bowel Syndrome		Shortness of Breath	
Falls		Anemia	
Cerebral Palsy		Diabetes	
High Blood Pressure			
Bursitis			
Vision Problem			
Migraines			
Hip Fracture			

six items, with higher scores implying greater well-being. Items recoded in question 36 included "in high spirits", "content with life", "generally satisfied with life", "happy as when I was younger", "as I look back on life, I am fairly satisfied" and "satisfied with my life today". The internal consistency of the SHARP as measured by Cronbach's Alpha Reliability Coefficient is .80. Overall there was no difference in the well-being of volunteers (M=22.04, SD=2.41) and non-volunteers (M=21.40, SD=2.55), t(164)=1.63, p=.11.

The SHARP is composed of six short-term (affective) and six long-term (dispositional) items. These two categories of items were not intended to be used as "stand alone" tools and remain to be validated for such a purpose. However, these two sets of items were used in the present study in an effort to provide some insight into the issues that determine health voluntarism. It was felt that this was justified because later life, being a time of loss and change, may produce short-term affective changes in individuals quite distinct from their longer term disposition, and exert an independent influence on decisions about whether or not to volunteer. The internal consistency of the six affective items as measured by Cronbach's Alpha Reliability Coefficient is .64; for the six dispositional items it is .63. There was no significant difference in the disposition of volunteers (M=10.94, SD=1.33) and non-volunteers (M=10.64, SD=1.38), p=.16. However there was a significant difference in the affect of volunteers and non-volunteers. Volunteers were more positive and satisfied with their life during the past month (M=11.11, SD=1.26) than non-volunteers (M=10.70, SD=1.38, p=.05.

Physical and Social Environmental Satisfaction Differences Between Volunteers and Non-Volunteers

Environmental satisfaction was measured with one, 6-part question addressing satisfaction with: (1) apartment buildings; (2) grounds; (3) health services available; (4) other services and community resources available; (5) the landlords/property owners; and (6) neighbours. An additional question asked respondents how likely it is given the opportunity, they would move to another similar community where the cost of living is the same.

There were no differences between volunteers and non-volunteers on satisfaction with apartment buildings, grounds, health services, other services, property owners or likelihood of moving to another community, given the chance. There was, however, a difference in how satisfied volunteers and non-volunteers were with their neighbours, $t(174)=-2.03$, $p=.04$ (Figure 5.3). Although still relatively satisfied with their neighbours (1= not at all satisfied; 6=extremely satisfied), volunteers reported being less satisfied with their neighbours ($M=5.33$, $SD=1.19$) than were non-volunteers ($M=5.64$, $SD=.84$).

General Volunteer Behaviour Differences Between Volunteers and Non-Volunteers

There were no differences between volunteers and non-volunteers in other non Cherryhill-related volunteer work or in past volunteer behaviour. There was no significant difference in numbers of hours spent in other current volunteer work between volunteers ($M=2.96$,$SD=5.95$) and non-volunteers ($M=2.45$, $SD=5.90$), $t(175)=.56$, $p=.58$. Other non Cherryhill related volunteer activities engaged in by volunteers and non-volunteers are outlined in Table 5.10. Likewise, there was no significant difference in the amount of past (pre-retirement) volunteer work for volunteers ($M=2.42$, $SD= 1.16$) and non-volunteers

Figure 5.3

Error Bar Chart Showing the Means and Standard Deviations of Satisfaction with Neighbours of Volunteers and Non-Volunteers

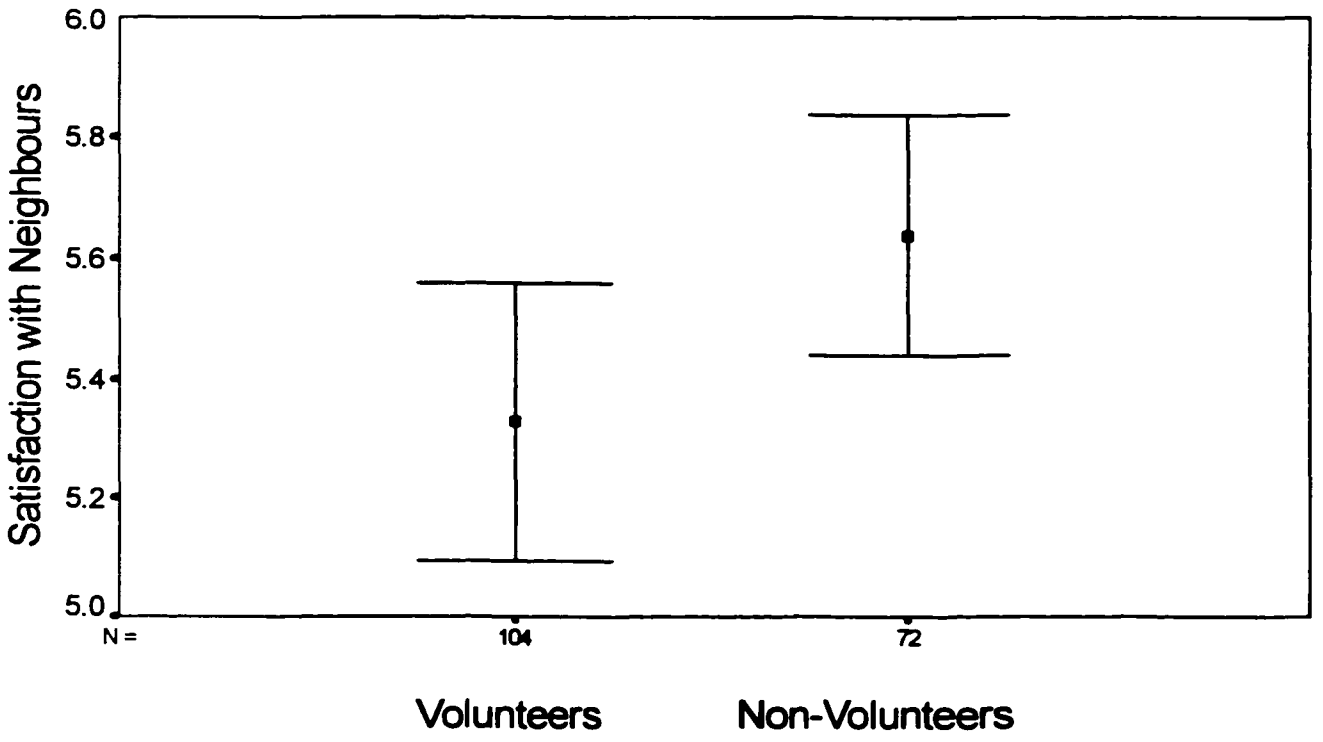


Table 5.10

Comparison of Other Current Volunteer Activities Engaged in by Volunteers and Non-Volunteers

Volunteers (Combined Group)		**Non-Volunteers**	
Volunteer Activity	**Percent (%)**	**Volunteer Activity**	**Percent (%)**
Community Health Agencies	25	Church-Related Activities	37
Helping Seniors	17	Helping Seniors	25
Church-Related Activities	17	Crafts for Charity	10
Hospital-Related Work	8	Visiting Residents in Nursing Homes	8
Service Agencies	7	Service Agencies	6
Babysitting	7	Community Health Agencies	4
Crafts for Charity	6	Library-Book Reviews	2
Visiting Nursing Home Residents	5	Fitness Instructor	2
House/Pet Sitting	2	Helping with the Food Bank	2
Royal Canadian Legion	2	Gardening/Greenhouse	2
Children's Organizations	1		
Probation Officer	1		
Fitness Instructor	1		
School-Related Activities	1		
Teaching Assistant	1		

(M=2.67, SD=1.33), t(140)=-1.30, p=.19. On average, both volunteers and non-volunteers participated 1-6 times per week in pre-retirement volunteer activities. Nor did the number of years involved in these activities differ significantly for volunteers (M=13.88, SD=14.97) and non-volunteers (M=11.27, SD=14.28), t(175)=1.15, p=.25. The types of pre-retirement volunteer work engaged in by volunteers and non-volunteers was similar. Volunteering with church and school activities and volunteering with community health organizations (e.g., Cancer Society; Arthritis Society; Distress Centre; Polio Society; etc.) were the top three volunteer activities respectively for both volunteers and non-volunteers (Table 5.11).

Social Resource Differences Between Volunteers and Non-Volunteers

Generally, there were no differences between volunteers and non-volunteers in the social supports they perceive they have available in different situations. An exception is the support that is available to console them when they become upset. Volunteers have a greater number of individuals to support them when they are upset (M=2.14, SD=1.23) than did non-volunteers (M=1.61, SD=1.23), t(178)=2.73, p=.01 (Table 5.12). Likewise, there is no difference in the satisfaction with current levels of social support available in different situations for volunteers and non-volunteers (Table 5.13). The type of social support reported was also very similar for volunteers and non-volunteers (Tables 5.14, 5.15, 5.16, 5.17, 5.18 and Table 5.19). Friends, daughters, sons and siblings (sisters and brothers) were consistently identified by both groups as key supports. Interestingly, both volunteers and non-volunteers reported that they relied heavily upon themselves to help them feel more relaxed when they are under pressure, to help them feel better when they are "down-in-the-dumps", and to console themselves when they are upset. The six "number of support" items

Table 5.11

Comparison of Pre-Retirement Volunteer Activities Engaged in by Volunteers and Non-Volunteers

Volunteers (Combined Group)		Non-Volunteers	
Volunteer Activity	**Percent (%)**	**Volunteer Activity**	**Percent (%)**
Church-Related Activities	21	Church-Related Activities	32
School-Related Activities	14	School-Related Activities	18
Community Health Agencies	14	Community Health Agencies	13
Hospital-Related Work	12	Scouts/Cubs/Girl Guides	7
Visiting Nursing Home Residents	6	Helping Seniors	6
Scouts/Cubs/Girl Guides	6	Children's Organizations	6
Service Agencies	4	Other Community Associations*	4
Helping Seniors	3	Hospital-Related Work	2
Sports Associations	3	Bingos	2
Crafts for Charity	2	Charitable Organizations	1
Teaching ESL	1	Visiting Nursing Home Residents	1
Election Enumerator	1	Greenhouse	1
Babysitting	1	I.O.D.E.	1
Charitable Organizations	1	Library	1
Symphony	1	Crafts for Charity	1
Library-Senior Outreach	1	YMCA	1
Credit Union	1	Bowling	1
Block Parents	1		
YMCA	1		
Department of Veterans' Affairs	1		
Bible Society	1		
Assistant Teacher	1		
Travel Organization	1		

* Other Community Associations included Humane Society and the Council for Women

Table 5.12

Number of Social Supports Identified by Volunteers (Combined Group) and Non-Volunteers

Situations Requiring Support	Mean	S.D.	t	Significance (p)
On whom can you really count to be dependable when you need help?				
Volunteers	3.09	1.37	t(179)=.90	.37
Non-Volunteers	2.91	1.39		
On whom can you really count to help you feel more relaxed when you are under pressure or tense?				
Volunteers	1.83	1.31	t(179)=.74	.46
Non-Volunteers	1.69	1.20		
Who accepts you totally, including both your worst and your best points?				
Volunteers	2.58	1.56	t(179)=-.18	.86
Non-Volunteers	2.62	1.55		
On whom can you really count on to care about you, regardless of what is happening to you?				
Volunteers	2.75	1.56	t(179)=.37	.72
Non-Volunteers	2.66	1.53		
On whom can you really count on to help you feel better when you are feeling generally "down-in-the-dumps"?				
Volunteers	2.02	1.44	t(179)=.15	.88
Non-Volunteers	1.99	1.42		
On whom can you count on to console you when you are very upset?				
Volunteers	2.14	1.33	t(178)=2.73	**.01**
Non-Volunteers	1.61	1.23		

Table 5.13

Satisfaction with Social Supports Identified by Volunteers (Combined Group) and Non-Volunteers

How Satisfied Are You With the Overall Support You Have:	Mean	S.D.	t	Significance (p)
when you need help?				
Volunteers	5.60	.96	t(175)=-.29	.77
Non-Volunteers	5.63	.76		
to help you feel more relaxed when you are under pressure or tense?				
Volunteers	5.52	.98	t(174)=1.07	.28
Non-Volunteers	5.36	.94		
to accept you totally, including both your worst and your best points?				
Volunteers	5.57	.88	t(171)=.33	.75
Non-Volunteers	5.52	.93		
to care about you, regardless of what is happening to you?				
Volunteers	5.62	.91	t(175)=-.74	.46
Non-Volunteers	5.72	.74		
to help you feel better when you are feeling generally "down-in-the-dumps"?				
Volunteers	5.57	1.02	t(174)=.15	.88
Non-Volunteers	5.55	.89		
to console you when you are very upset?				
Volunteers	5.50	1.12	t(173)=.91	.36
Non-Volunteers	5.34	1.20		

Note: 1 = very unsatisfied
2 = fairly unsatisfied
3 = a little unsatisfied
4 = a little satisfied
5 = fairly satisfied
6 = very satisfied

Table 5.14

Type of Social Support Identified by Volunteers and Non-Volunteers that They Can Count on When They Need Help

Volunteers (Combined Group)		Non-Volunteers	
Type of Support	**Percent (%)**	**Type of Support**	**Percent (%)**
Friends	27	Friend	27
Son	21	Son	21
Daughter	13	Daughter	20
Sibling	10	Sibling	6
Minister	8	Spouse	5
Neighbour	5	Neighbour	5
Spouse	3	Daughter-in-Law	5
Doctor	2	Niece	2
Niece	2	Nephew	2
Nephew	2	Grandchild	2
Cousin	1	Cousin	1
Myself	1	Sister-in-Law	1
Son-in-Law	1	Son-in-Law	1
Daughter-in-Law	1	Doctor	1
Brother-in-Law	1	Homemaker	1
God	1	Nurse	1
Grandchild	1	No One	1

Table 5.15

Type of Social Support Identified by Volunteers and Non-Volunteers that They Can Count to Help Them Feel More Relaxed When They are Under Pressure

Volunteers (Combined Group)		**Non-Volunteers**	
Type of Support	**Percent (%)**	**Type of Support**	**Percent (%)**
Friends	30	Friend	31
Myself	14	Myself	16
Daughter	14	Son	13
Son	9	Daughter	10
Sibling	7	Sibling	7
Neighbour	5	Spouse	6
Doctor	4	Neighbour	6
God	3	Grandchild	2
Spouse	2	Niece	2
Minister	2	Cousin	1
Cousin	1	Sister-in-Law	1
Elder	1	Doctor	1
Boyfriend	1	Minister	1
Daughter-in-Law	1	God	1
Therapist	1	Girlfriend	1
Niece	1	Daughter-in-Law	1
Nephew	1	People in the Mall	1
Grandchild	1	Anyone I Run Into	1
Don't Know	1		

Table 5.16

Type of Social Support Identified by Volunteers and Non-Volunteers that They Can Count on to Accept Them Totally

Volunteers (Combined Group)		Non-Volunteers	
Type of Support	**Percent (%)**	**Type of Support**	**Percent (%)**
Friends	30	Friend	28
Daughter	21	Daughter	23
Son	15	Son	18
Sibling	9	Sibling	7
Spouse	4	Spouse	6
Myself	3	Daughter-in-Law	4
Neighbour	3	Myself	2
Niece	2	Niece	2
Nephew	2	Nephew	2
Minister	2	Cousin	2
Grandchild	2	Sister-in-Law	1
Son-in-Law	1	Son-in-Law	1
Daughter-in-Law	1	Grandchild	1
Doctor	1	Neighbour	1
Cousin	1	Minister	1
		Aunt	1

Table 5.17

Type of Social Support Identified by Volunteers and Non-Volunteers that They Can Count on to Care About Them Regardless What is Happening to Them

Volunteers (Combined Group)		Non-Volunteers	
Type of Support	**Percent (%)**	**Type of Support**	**Percent (%)**
Friends	27	Friend	31
Son	21	Daughter	23
Daughter	20	Son	16
Sibling	10	Sibling	9
Spouse	4	Daughter-in-Law	5
Myself	3	Spouse	3
Niece	2	Neighbour	2
Nephew	2	Myself	2
Daughter-in-Law	2	Niece	2
Grandchild	2	Nephew	2
Doctor	1	Grandchild	2
Cousin	1	Cousin	2
Minister	1	Son-in-Law	1

Table 5.18

Type of Social Support Identified by Volunteers and Non-Volunteers that They Can Count on to Help Them Feel Better When They are Down-in-the-Dumps

Volunteers (Combined Group)		Non-Volunteers	
Type of Support	**Percent (%)**	**Type of Support**	**Percent (%)**
Friends	33	Friend	24
Myself	14	Daughter	18
Daughter	12	Myself	17
Son	10	Son	9
Sibling	10	Sibling	7
Spouse	5	Neighbour	7
Neighbour	3	Spouse	5
Doctor	2	Daughter-in-Law	3
Grandchild	2	Niece	2
God	2	Cousin	2
Cousin	1	Sister-in-Law	2
Therapist	1	Doctor	1
		Son-in-Law	1
		Grandchild	1
		God	1
		People in Mall	1
		Television	1

Table 5.19

Type of Social Support Identified by Volunteers and Non-Volunteers that They Can Count on to Console Them When They Are Very Upset

Volunteers (Combined Group)		**Non-Volunteers**	
Type of Support	**Percent (%)**	**Type of Support**	**Percent (%)**
Friends	27	Friend	28
Daughter	15	Daughter	18
Myself	11	Myself	15
Son	11	Son	14
Sibling	8	Spouse	7
Neighbour	5	Sibling	6
Spouse	4	Daughter-in-Law	5
Doctor	3	Cousin	2
Minister	3	Son-in-Law	2
Niece	3	Neighbour	1
Grandchild	2	God	1
God	2	Minister	1
Nephew	1	Sister-in-Law	1
Mother	1	Aunt	1
Sister-in-Law	1		

and "satisfaction with this support" items of the Social Resources Scales (Sarason, Sarason & Shearin, 1987) were summed to get one overall score for each of these two areas. Overall, there was no difference in the number of supports identified by volunteers (M=14.42, SD=6.46) and non-volunteers (M=13.47, SD=6.22), t(178)=.98, p=.33. The internal consistency of the six "number of supports" items as measured by Cronbach's Alpha Reliability Coefficient was .84. Nor was there a difference in overall satisfaction with social support available for volunteers (M=33.68, SD=4.74) and non-volunteers (M=33.28, SD=4.65), t(166)=.54, p=.59. The internal consistency of the six "satisfaction" items as measured by Cronbach's Alpha Reliability Coefficient was .93.

Personality Differences Between Volunteers and Non-Volunteers

Personality was measured with five general questions asking about (1) extroversion, (2) neuroticism, (3) openness to experience, (4) agreeableness, and (5) conscientiousness, based on definitions of the "big 5" personality factors provided by McCrae and Costa (1987). Statistically significant differences between volunteers and non-volunteers were found for three of the five personality characteristics: extroversion (t(179)=2.75, p=.01); openness to experience (t(178)=2.55, p=.01); and agreeableness (t(178)=1.96, p=.05). Volunteers were more extroverted (M=4.41, SD=1.11) than were non-volunteers (M=3.93, SD=1.21) (Figure 5.4), more open to new experiences (M=5.05, SD=.89) than were non-volunteers (M=4.70, SD=.91) (Figure 5.5), and more agreeable (M=5.36, SD=.70) than were non-volunteers (M=5.12, SD=.88) (Figure 5.6). There were no differences in neuroticism (t(178)=-1.92, p=.06) and conscientiousness (t(178)=-.12, p=.90).

Figure 5.4

Error Bar Chart Showing the Means and Standard Deviations in Extroversion of Volunteers and Non-Volunteers

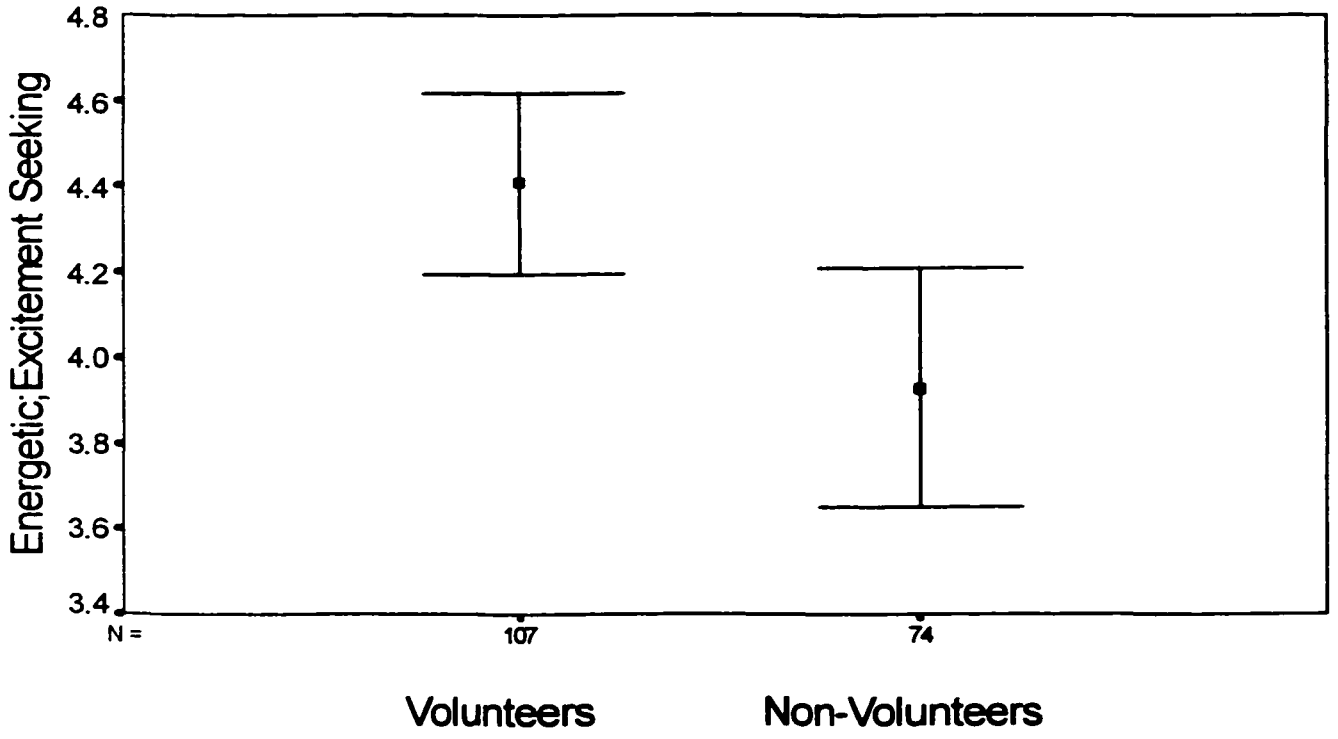


Figure 5.5

Error Bar Chart Showing the Means and Standard Deviations in Openness to New Experiences of Volunteers and Non-Volunteers

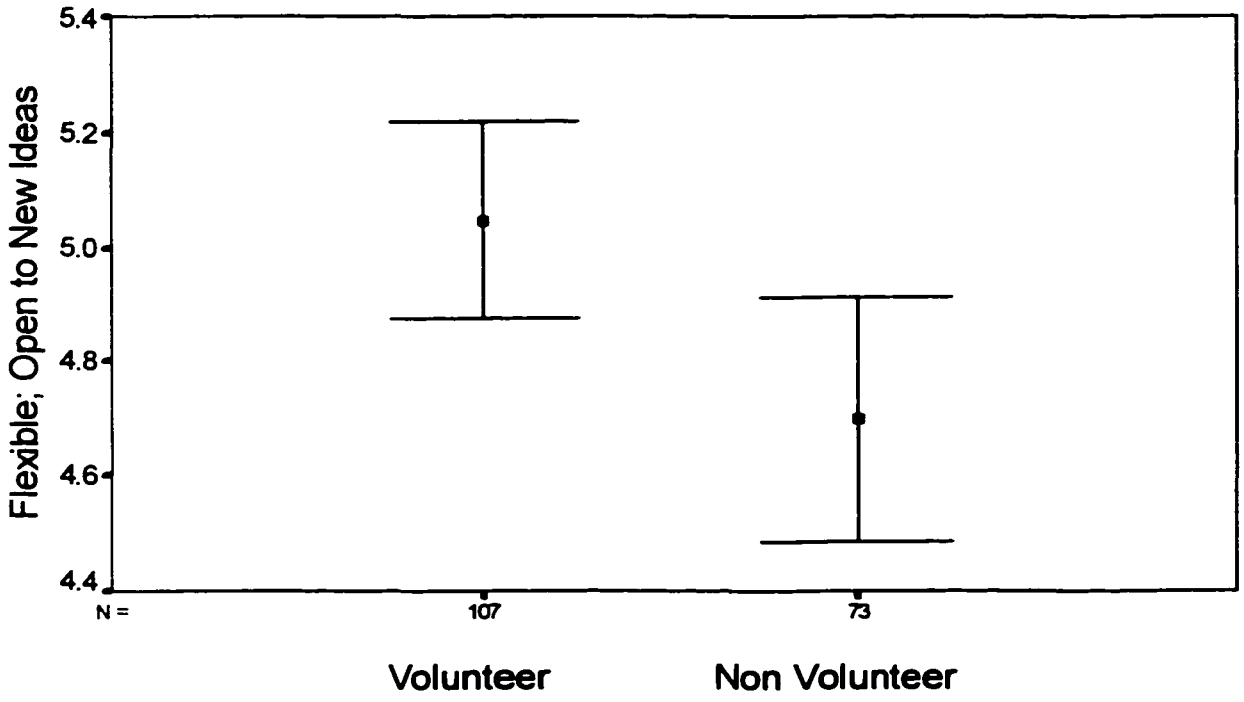
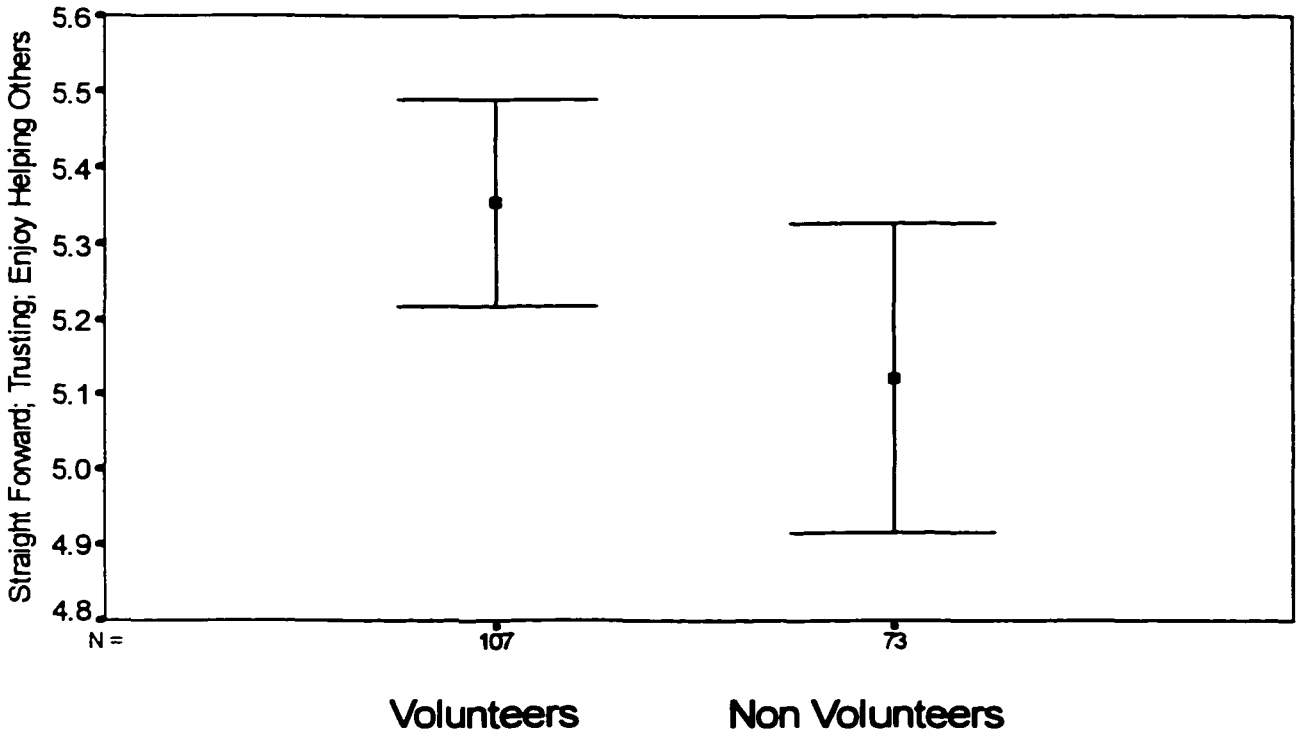


Figure 5.6

Error Bar Chart Showing the Means and Standard Deviations in Agreeableness of Volunteers and Non-Volunteers



Activity Level Differences Between Volunteers and Non-Volunteers

Type and frequency of activity participation was measured with the Activities Checklist (Arbuckle, Gold, Chaikelson & Lapidus, 1994). The 22 items of the Activities Checklist were summed to obtain one activity level score for both volunteers and non-volunteers. A statistically significant difference in the level of activity participation was found for volunteers and non-volunteers, $t(155)=2.13$, $p=.03$ (Figure 5.7). Volunteers tended to participate in more activities ($M=72.53$, $SD=9.36$) than did non-volunteers ($M=69.71$, $SD=7.51$). Table 5.20 describes the type of activities engaged in by volunteers and non-volunteers, as well as the frequency of their involvement. Specifically, volunteers were more involved in arts, crafts and other hobbies ($M=2.97$, $SD=1.75$) than were non-volunteers ($M=2.36$, $SD=1.64$), $t(179)=2.36$, $p=.02$; volunteers were also more involved with community organizations ($M=2.63$, $SD=1.42$) than were non-volunteers ($M=2.11$, $SD=1.32$), $t(178)=2.47$, $p=.01$; volunteers went out shopping more ($M=4.10$, $SD=.72$) than did non-volunteers ($M=3.81$, $SD=.84$), $t(177)=2.51$, $p=.01$; volunteers spent more time writing to friends and family (M2.97, $SD=1.26$) than did non-volunteers ($M=2.47$, $SD=1.06$), $t(179)=2.79$, $p=.01$; and volunteers napped less ($M=3.14$, $SD=1.60$) than did non-volunteers ($M=3.82$, $SD=1.43$), $t(165)=-2.95$, $p=.004$. Volunteers also reported participating more in volunteer work ($M=2.59$, $SD=1.50$) than did non-volunteers ($M=1.97$, $SD=1.32$), $t(166)=2.93$, $p=.004$. This is contrary to how non-volunteers responded when asked what other non Cherryhill-related volunteer work they were currently involved in (Health Voluntarism Survey Question 26, Appendix D). Volunteers and non-volunteers did not differ on their responses to Question 26. The reasons for this are not clear. It may be that study

Figure 5.7

Error Bar Chart Showing the Means and Standard Deviations in Activity Participation by Volunteers and Non-Volunteers

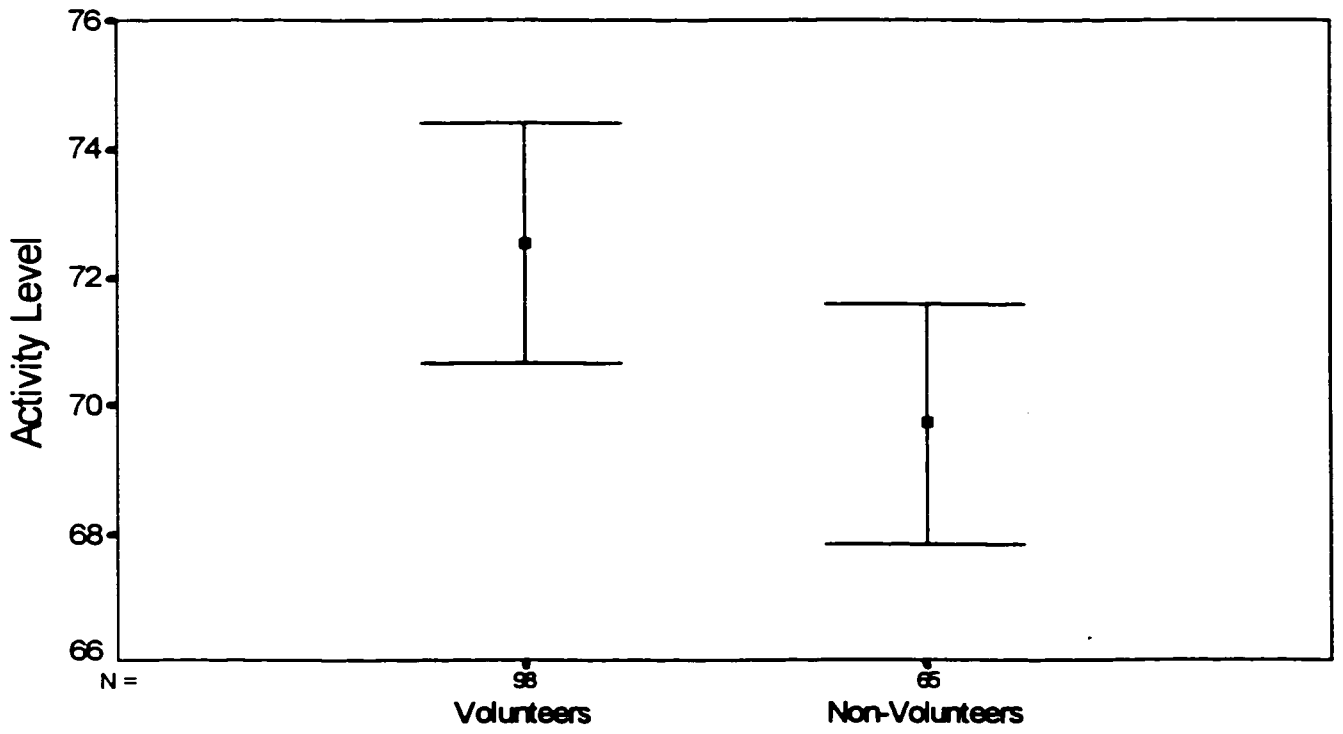


Table 5.20

Comparison of Types of Activities and Frequency of Participation by Volunteers and Non-Volunteers

Activity	Mean	SD	t	Significance (p)
Socializing with Others				
Volunteers	4.03	1.07	t(177)=.10	.92
Non-Volunteers	4.01	.82		
Visiting with Family				
Volunteers	4.05	.97	t(179)=-.64	.52
Non-Volunteers	4.14	.83		
Gardening				
Volunteers	2.03	1.64	t(164)=1.05	.30
Non-volunteers	1.78	1.48		
Reading				
Volunteers	4.65	.86	t(179)=-.24	.81
Non-Volunteers	4.68	.80		
TV/Radio				
Volunteers	4.85	.60	t(153)=-1.27	.21
Non-Volunteers	4.93	.25		
Sit & Think				
Volunteers	4.13	1.32	t(177)=-.03	.98
Non-Volunteers	4.14	1.19		
Caring for Older/Younger Family Member(s)				
Volunteers	1.96	1.49	t(177)=1.20	.23
Non-Volunteers	1.70	1.37		
Arts/Crafts/Hobbies				
Volunteers	2.97	1.75	t(179)=2.36	**.02**
Non-Volunteers	2.36	1.64		
Walking				
Volunteers	4.25	1.67	t(179)=1.05	.30
Non-Volunteers	4.07	1.16		

Table 5.20

Continued

Activity	Mean	SD	t	Significance (p)
Fraternal/Community Organizations/Clubs (not church related)				
Volunteers	2.63	1.42	t(178)=2.47	**.01**
Non-Volunteers	2.11	1.32		
Housework				
Volunteers	4.49	.93	t(177)=.39	.70
Non-Volunteers	4.43	.96		
Worship				
Volunteers	3.00	1.58	t(165)=-1.01	.31
Non-volunteers	2.23	1.45		
Personal Care				
Volunteers	4.94	.23	t(132)=.94	.35
Non-Volunteers	4.91	.30		
Napping				
Volunteers	3.14	1.60	t(165)=-2.95	**.004**
Non-Volunteers	3.82	1.43		
Shopping				
Volunteers	4.10	.72	t(177)=2.51	**.01**
Non-Volunteers	3.81	.84		
Cards/Games				
Volunteers	3.02	1.50	t(179)=1.35	.18
Non-Volunteers	2.72	1.47		
Volunteer Work				
Volunteers	2.59	1.50	t(166)=2.93	**.004**
Non-Volunteers	1.97	1.32		
Writing				
Volunteers	2.97	1.26	t(179)=2.79	**.01**
Non-Volunteers	2.47	1.06		
Working				
Volunteers	1.95	.21	t(179)=.95	.34
Non-Volunteers	1.92	.28		

Table 5.20

Continued

Activity	Mean	SD	t	Significance (p)
Sports				
Volunteers	1.74	1.28	t(179)=1.14	.26
Non-Volunteers	1.53	1.16		
Political Activity				
Volunteers	1.10	.50	t(145)=1.19	.24
Non-Volunteers	1.04	.20		
Theatre/Cinema				
Volunteers	1.91	.87	t(177)=-1.07	.29
Non-volunteers	1.75	1.02		

Note: 1 = <than 1x/year
2 = 1-11x/year
3 = 1-3x/month
4 = 1-6x/week
5 = daily

participants answering the activity question (which was located closer to the end of the survey) included their volunteer work with the Cherryhill Community Project when they answered this question.

Reasons for Volunteering

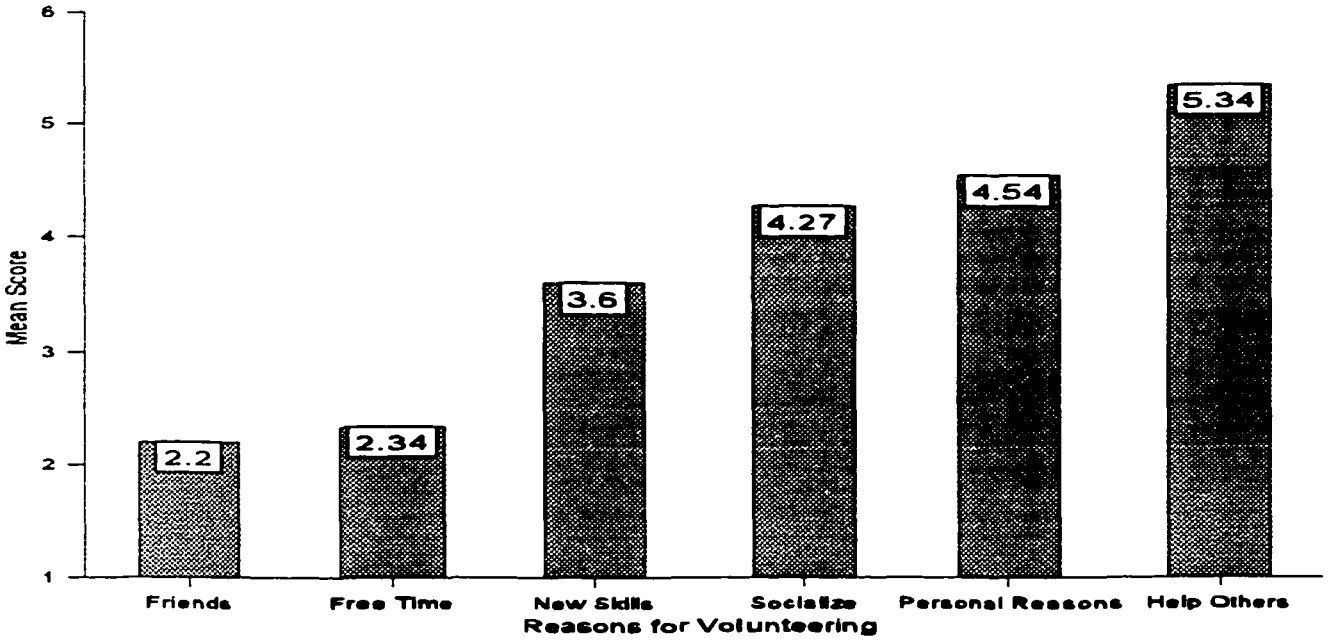
Volunteers were provided with a list of reasons for volunteering that have been consistently reported by others in previous volunteer studies and were asked to rate how important each of these reasons was for them. Volunteers reported that they volunteer primarily to help others, for personal reasons and to socialize (Figure 5.8). Thirty-two of the volunteers also identified other reasons for volunteering. These reasons included: (1) "because it is rewarding and makes me feel good" (34%); (2) "because I am grateful for my own health and it is a chance to give back" (22%); (3) "because I was asked" (9%); (4) "to share my knowledge and skills" (9%); (5) "because I have the time and energy" (6%); (6) "because God wants me to" (6%); (7) "because of a friend who died" (3%); (8) "for personal satisfaction" (3%); (9) "to stay active" (3%); and (10) "to feel useful" (3%).

Psychological Commitment to Volunteering by Cherryhill Residents

Psychological commitment to volunteering was measured using the Social World Segmentation Instrument (Gahwiler & Havitz, 1998) and the Psychological Commitment Instrument (Pritchard, Havitz & Howard, 1999). The Social World Segmentation Instrument examines progression through four social world types by determining whether study participants perceive themselves as "strangers", "observers", "regulars" or "insiders" in the following four areas of involvement with the Cherryhill Community Project: (1) their general *orientation* to people, activities and procedures associated with the project; (2) their general

Figure 5.8

Reasons for Volunteering



Legend:
1 = not important
2 = usually not important
3 = unsure
4 = a little important
5 = important
6 = extremely important

experience with the project; (3) their *relationships* with others involved with the project; and (4) their *commitment* to the project. Each of the four items of the Social World Segmentation Instrument was treated as a 4-point Likert-type scale ranging from 1 (outsider) to 4 (insider). Elderly volunteers involved in the Cherryhill Community Project at this stage of the project feel that they are irregular participants (orientation subscale: M=2.25, SD=1.00), feel that they are gradually becoming more familiar with the project (experience subscale: M=2.69, SD=.87), feel they are beginning to know more about others involved in the project (relationship subscale: M=2.76, SD=.90), feel a sense of belonging and intend to continue indefinitely as a project volunteer (commitment subscale: M=3.13, SD=.92).

The Psychological Commitment Instrument (PCI) measures three key antecedents which have been shown to enhance resistance to change. These three components include *position involvement* (3 items), *informational complexity* (3 items) and *volitional choice* (4 items), and resistance to change itself (3 items). A number of these items were reverse coded. The reverse-coded items were recoded to be consistent with other items so that the higher the number, the more strongly volunteers agree with the statement provided. Specifically, questions 23 a, b, e, f, g, h, j, k and m were recoded. The "resistance to change" items were then summed to create one resistance to change score. Likewise the "position involvement", "informational complexity" and "volitional choice" items were summed to create one score for each of these categories. Scores for each of the "resistance to change", "position involvement" and "informational complexity" items ranged from 3 (do not agree) to 6 (definitely agree); and ranged from 4 (do not agree) to 8 (definitely agree) for the "volitional choice" item. In general, volunteers with the Cherryhill Community Project: (1) were

resistant to changing from volunteering with the Cherryhill Project to volunteering elsewhere (M=5.57, SD .65); (2) volunteer because it reflects their lifestyle and the type of person they are (M=5.36, SD=.63); (3) consider themselves to be knowledgeable about the Cherryhill Project (M=5.59, SD=.92); and (4) freely chose to volunteer with the Cherryhill Project over other volunteer options (M=7.87, SD=.35).

Reasons for Not Volunteering Provided by Non-Volunteers

Elderly individuals living in the Cherryhill apartment complex who were not volunteering with the Cherryhill Community Project were asked to provide reasons as to why they were not volunteering (Table 5.21). Poor health, being too busy with other commitments and age, respectively were the three reasons for not volunteering listed by the non-volunteers, respectively.

Predictors of Leadership in Health Voluntarism

Elderly individuals volunteering with the Cherryhill Community Project volunteer in many different capacities ranging from general helpers, to committee members, to committee chairs to apartment building representatives. From a community development perspective, it is essential to identify volunteers who are willing to assume leadership positions. Thus, this study also examined the predictors of willingness to volunteer in leadership positions. Willingness to volunteer for a leadership position was treated as the dependent variable and measured using a 6-point Likert-type scale ranging from 1 (not at all likely) to 6 (most definitely will). The scale item asked individuals how likely it is that they will volunteer for a leadership position. The majority of volunteers were not likely to volunteer in a leadership position (M=2.01, SD=1.44). Sixty-eight percent of the volunteers (n=66) reported that they

Table 5.21

Reasons for Not Volunteering Reported by Non-Volunteers

Reasons for Not Volunteering	Percent of Respondents
Age	11%
Health	40%
Too Busy/Other Commitments	31%
Working	3%
Not My Nature to Volunteer	3%
Don't Know What I Can Do	4%
Other Reasons	7%

Note: Other reasons for not volunteering included one response for each of the following:
I am moving soon
I haven't been here long enough
I have other interests
Transportation is a problem for me
I don't want to be tied down

would not volunteer for a leadership position, 25% (n=23) of the volunteers were unsure if they would volunteer for a leadership position, and 7% (n=7) of the volunteers reported that they probably would volunteer for a leadership position (Table 5.22).

Bi-variate correlational analyses were used to identify the predictors of volunteer leadership (Table 5.23). Independent variables were categorized according to "modifiable", "non-modifiable" and social world variables. "Modifiable" variables included health, functional ability, well-being, activity level, social resources and environmental satisfaction. There were no significant relationships between any of the "modifiable" variables and willingness to assume a leadership position except for satisfaction with social supports ($r=.22$, $p=.03$).

Non-modifiable variables included age, education, income, life changes, past volunteer involvement and personality. Recent life changes were summed to obtain one score for the number of life changes experienced by respondents during the past year. Significant relationships were found between three of the "non-modifiable" variables and volunteer leadership. Age was significantly negatively correlated with volunteer leadership ($r=-.25$, $p=.02$) suggesting that individuals who are younger are more likely to assume positions of leadership. The personality trait dimensions of "extroversion" ($r=.24$, $p=.02$) and "agreeableness" ($r=.28$, $p=.01$) were both significantly positively correlated with volunteer leadership suggesting that individuals who are extroverted, trusting and those who enjoy helping others are more likely to take on leadership positions.

Social world and psychological commitment were measured using the four items (orientation; experience; relationships; commitment) from the Social World Segmentation

Table 5.22

Percentage of Elderly Individuals Willing to Assume a Volunteer Leadership Position

WILLING TO ASSUME A LEADERSHIP POSITION	N (n=96)	PERCENT (%)
1. Not at all likely	57	59
2. Don't think I will	9	9
3. Not sure if I will	12	13
4. Might consider	11	12
5. Think I will	4	4
6. Most definitely will	3	3

Table 5.23

Correlations between Modifiable, Non-Modifiable (n=107) and Social World Variables (n=17) and Volunteer Leadership

Independent Variables	Volunteer Leadership (DV)	Significance (p)
Modifiable Variables		
Subjective Health	.05	.67
Objective Health		
Hospital Visits	.05	.63
Physician Visits	-.17	.10
Functional Ability	-.14	.17
Well-Being		
General	.07	.49
Affective (Short-term)	.08	.45
Dispositional (Long-term)	.06	.55
Activity Level	.12	.27
Social Support	-.05	.61
Satisfaction with Social Support	.22	**.03**
Environmental Satisfaction	-.07	.50
Non-Modifiable Variables		
Age	-.25	**.02**
Education	.02	.87
Income	-.09	.40
Recent Life Changes	-.13	.22
Past Volunteer Involvement	-.13	.22
Personality		
Extroversion	.24	**.02**
Neuroticism	-.16	.12
Openness to Experience	.17	.10
Agreeableness	.28	**.01**
Conscientiousness	.06	.54
Social World Variables		
Orientation	.19	.49
Experience	.35	.21
Relationships	.06	.83
Commitment	.29	.31
Resistance to Change	-.07	.81
Position Involvement	-.03	.92
Informational Complexity	.21	.47
Volitional Choice	.18	.53

Instrument (Gahwiler & Havitz, 1998) and the three components (position involvement; informational complexity; volitional choice), and resistance to change itself from the Psychological Commitment Instrument (Pritchard, Havitz & Howard 1999). No significant relationships were found between any of the psychological commitment variables or social world variables and willingness to assume a volunteer leadership position. This may be due to the small sample size (n=17) of actual volunteers who completed the social world and psychological commitment questions.

Conclusions

Overwhelmingly, the ability of elderly individuals to get out of their apartments on a day-to-day basis influenced volunteer behaviour. Elderly individuals who: (1) were younger; (2) received fewer health services; (3) experienced fewer limitations in their day-to-day activities; (4) were more active; (5) were more positive and satisfied with their life during the past month; and (6) were extroverted, open to change and agreeable were more predisposed to volunteering. Both volunteers and non-volunteers were similar with respect to their gender socio-economic status, health, disposition, the number of, and satisfaction with, social supports available to them in a variety of situations, recent life changes, satisfaction with their social and physical environment, past and present volunteer involvement and the "neuroticism" and "conscientiousness" personality characteristics (Table 5.24). While overall there were no differences in environmental satisfaction and social support for volunteers and non-volunteers, volunteers differed from non-volunteers on two specific questions in each of these areas. Volunteers were less satisfied with their neighbours and reported a greater

Table 5.24

Summary Variables that Successfully Predict Health Voluntarism and Volunteer Leadership

	Modifiable Predictors							Non-Modifiable Predictors				
Construct	Health	Health Service Utiliz.	Functional Ability	Well-Being	Social Res.	Activity Level	Environ. Factors	Personality Traits	SES	Age	General Volunteer Behaviour	Recent Life Events
Health Voluntarism		X	X	X[1]		X		X[2]		X		
Volunteer Leadership					X[3]			X[4]		X		

1 = affective (short-term) component of well-being
2 = extroversion, openness to change & agreeableness components of the 5 key personality factors
3 = satisfaction with social supports available in a variety of different situations
4 = extroversion & agreeableness component of the 5 key personality factors

number of people on whom they could rely to console them when they are upset, than non-volunteers. From an applied health promotion and community development perspective, modifiable factors such as functional ability, activity level, well-being and health service utilization, factors over which individuals and health professionals may have some influence, may provide opportunities to enhance the volunteer involvement of elderly individuals living in the community. While the majority of volunteers indicated that they would most likely not assume a volunteer leadership position, volunteers whose personality characteristics included being straight forward, trusting and those who enjoy helping others indicated they would be more likely to take on a position of leadership. Likewise, volunteers who were younger and more satisfied with the social supports available to them were more likely to take on a leadership role.

The Moderating Effects of "Non-Modifiable" Variables on the Relationship Between "Modifiable" and Dependent Variables

To determine if the "non-modifiable" characteristics of study participants (e.g., age; socio-economic status; recent life changes; personality; etc.) modified or masked the influence of the "modifiable" factors on health voluntarism and volunteer leadership a series of hierarchical regression analyses were carried out. Exploratory factor analysis with varimax rotation was used to reduce the "modifiable" variables to two factors; these factors were then used for the multiple regression analyses. Modifiable input variables for the factor analysis included: (1) subjective health; (2) hospital admissions; (3) physician visits; (4) functional ability; (5) general well-being; (6) affective (short-term) well-being; (7) dispositional (long-term) well-being; (8) activity level; (9) number of social supports; (10) satisfaction with social

supports; and (11) satisfaction with the physical and social environment. The exploratory factor analysis supported a 2-factor structure; Factor 1: Psychosocial/Environmental and Factor 2: Health/Functional Ability (Table 5.25). The psychosocial/environmental factors (Factor 1) included both short- and long-term well-being, activity level, social supports, satisfaction with social supports and environmental satisfaction; health and functional ability factors (Factor 2) included subjective health, physician visits and functional ability. All factor loadings exceeded the .51 level for Factor 1 and the .65 level for Factor 2, both factors having Eigenvalues greater than 1.00. Two items in Factor 2 (physician visits and functional ability) were recoded to ensure congruence with the subjective health measure so that higher scores represent better health. Scores for all "modifiable" variables were standardized and a composite index was created for each factor by summing variable scores for Factor 1 and Factor 2. These summated standardized scores were used for subsequent analyses.

First, bi-variate correlational analyses were used to examine the relationships between the "modifiable" variables and health voluntarism and volunteer leadership (Table 5.26). Table 5.26 shows the relationship between these variables. No significant relationships were found. A series of hierarchical regression analyses were then carried out to examine the potential interactions between "modifiable" factors (psychosocial/environmental factors; health/functional ability, and health service utilization) and the "non-modifiable" independent variables. The results of these hierarchical regression analyses are shown in Tables 5.27, 5.28 and 5.29. Of all the interaction effects examined, four were found to be significant. The extent to which a person volunteered in the past, and a person's personality, in particular, the "conscientiousness" trait dimension moderated the influence of health/functional ability on

Table 5.25

Factor Analysis of the "Modifiable" Variables Measured by the Health Voluntarism Survey (n=181)

Measure and Modifiable Variables	Factor 1 (Psychosocial/ Environmental)	Factor 2 (Health/Functional Ability)	Communality
PSYCHOSOCIAL/ENVIRONMENTAL			
General Well-Being	.76	.55	.88
Affective Well-Being	.68	.50	.71
Dispositional Well-Being	.73	.52	.80
Activity Level	.51	.31	.36
Social Supports	.65	-.11	.43
Social Support Satisfaction	.70	.30	.59
Environmental Satisfaction	.69	.02	.48
HEALTH/FUNCTIONAL ABILITY			
Subjective Health	.19	.83	.73
Physician Visits	-.07	-.65	.43
Functional Ability	-.10	-.85	.74

Note: hospital visits did not load on either factor and was dropped from further analyses

Table 5.26

Correlations Between "Modifiable" Variables and Health Voluntarism and Volunteer Leadership (n=181)

	Psychosocial/Environmental Factors	Health/Functional Ability
Health Voluntarism	.10	.13
Volunteer Leadership	.07	.15

Table 5.27

Regression Analysis of Interaction Effects of Psychosocial/Environmental and "Non-Modifiable" Variables on Health Voluntarism and Volunteer Leadership

Psychosocial/Environmental X Non-Modifiable Interaction[1] (Psychosocial Environmental X . . .)	R-Squared for Psychosocial/ Environmental + Non-Modifiable Variables[2]	R-Squared Change When Interaction Entered[3]	F Change[4]	Significance of F for Change[5]
HEALTH VOLUNTARISM				
Age	.04	.00	.03	.88
Income	.03	.00	.18	.68
Education	.01	.00	.16	.69
Recent Life Changes	.02	.01	.87	.35
Past Volunteer Involvement	.04	.02	2.7	.10
Extroversion	.04	.00	.10	.75
Neuroticism	.02	.00	.24	.63
Openness to Experience	.02	.00	.26	.61
Agreeableness	.02	.00	.01	.91
Conscientiousness	.04	.02	3.3	.07
VOLUNTEER LEADERSHIP				
Age	.07	.01	.45	.50
Income	.01	.00	.21	.65
Education	.01	.00	.04	.84
Recent Life Changes	.04	.00	.25	.62
Past Volunteer Involvement	.02	.00	.03	.88
Extroversion	.08	.00	.03	.86
Neuroticism	.07	.02	1.4	.25
Openness to Experience	.04	.00	.13	.72
Agreeableness	.11	.01	1.1	.30
Conscientiousness	.01	.00	.01	.91

Notes: 1 Interaction term represented by the product of psychosocial/environmental factors and a particular non-modifiable variable.

2 Total variance (R-Squared) in dependent health voluntarism and volunteer leadership variables explained by the psychosocial/environmental factors and the specific non-modifiable variable when treated as independent variables in the regression analysis.

3 Change or additional variance (R-Squared) in dependent health voluntarism and volunteer leadership variables explained when the interaction variable is added to the regression equation.

4 F-value for the change or additional variance explained in the dependent variable.

5 Significance of level of the F-value.

Table 5.28

Regression Analysis of Interaction Effects of Health/Functional Ability and "Non-Modifiable" Variables on Health Voluntarism and Volunteer Leadership

Health/Functional Ability X Non-Modifiable Interaction[1] (Health/Functional Ability X . . .)	R-Squared for Health/Functional Ability + Non-Modifiable Variables[2]	R-Squared Change When Interaction Entered[3]	F Change[4]	Significance of F for Change[5]
HEALTH VOLUNTARISM				
Age	.05	.00	.02	.88
Income	.03	.01	.96	.33
Education	.03	.01	1.2	.28
Recent Life Changes	.02	.00	.14	.71
Past Volunteer Involvement	.06	.03	5.6	**.02**
Extroversion	.07	.00	.32	.57
Neuroticism	.03	.00	.02	.90
Openness to Experience	.05	.00	.53	.47
Agreeableness	.04	.00	.17	.69
Conscientiousness	.05	.03	4.7	**.03**
VOLUNTEER LEADERSHIP				
Age	.08	.01	.49	.48
Income	.04	.00	.31	.58
Education	.03	.00	.00	.96
Recent Life Changes	.04	.00	.19	.67
Past Volunteer Involvement	.03	.00	.17	.68
Extroversion	.09	.01	.74	.39
Neuroticism	.05	.00	.07	.79
Openness to Experience	.07	.03	.25	.12
Agreeableness	.09	.00	.00	.95
Conscientiousness	.03	.00	.23	.64

Notes: 1 Interaction term represented by the product of health/functional ability and a particular non-modifiable variable.

2 Total variance (R-Squared) in dependent health voluntarism and volunteer leadership variables explained by health/functional ability and the specific non-modifiable variable when treated as independent variables in the regression analysis.

3 Change or additional variance (R-Squared) in dependent health voluntarism and volunteer leadership variables explained when the interaction variable is added to the regression equation.

4 F-value for the change or additional variance explained in the dependent variable.

5 Significance of level of the F-value.

Table 5.29

Regression Analysis of Interaction Effects of Health Service Utilization and "Non-Modifiable Variables" on Health Voluntarism and Volunteer Leadership

Health Service Utilization X Non-Modifiable Interaction[1] (Health Service Utilization X . . .)	R-Squared for Health Service Utilization + Non-Modifiable Variables[2]	R-Squared Change When Interaction Entered[3]	F Change[4]	Significance of F for Change[5]
HEALTH VOLUNTARISM				
Age	.08	.01	2.5	.12
Income	.06	.00	.27	.60
Education	.07	.01	1.2	.28
Recent Life Changes	.07	.01	.96	.33
Past Volunteer Involvement	.09	.01	2.8	.10
Extroversion	.09	.00	.79	.37
Neuroticism	.07	.00	.01	.94
Openness to Experience	.08	.00	.01	.95
Agreeableness	.07	.00	.01	.92
Conscientiousness	.09	.02	3.7	.06
VOLUNTEER LEADERSHIP				
Age	.10	.04	4.3	**.04**
Income	.01	.00	.20	.66
Education	.03	.00	.42	.52
Recent Life Changes	.02	.00	.13	.72
Past Volunteer Involvement	.02	.00	.07	.79
Extroversion	.08	.02	2.4	.13
Neuroticism	.03	.00	.01	.91
Openness to Experience	.07	.04	4.2	**.04**
Agreeableness	.08	.00	.19	.67
Conscientiousness	.01	.00	.12	.73

Notes: 1 Interaction term represented by the product of health service utilization and a particular non-modifiable variable.

2 Total variance (R-Squared) in dependent health voluntarism and volunteer leadership variables explained by health service utilization and the specific non-modifiable variable when treated as independent variables in the regression analysis.

3 Change or additional variance (R-Squared) in dependent health voluntarism and volunteer leadership variables explained when the interaction variable is added to the regression equation.

4 F-value for the change or additional variance explained in the dependent variable.

5 Significance of level of the F-value.

health voluntarism. Likewise, a person's age and a person's personality, specifically the "openess to experience" trait dimension, significantly interacted with health service utilization to influence volunteer leadership. A summary of hierarchical regression analyses for these significant interaction effects are shown in Tables 5.30, 5.31, 5.32 and 5.33. There were no significant interaction effects of "non-modifiable" variables with the "modifiable" psychosocial/environmental factors for health voluntarism or volunteer leadership. Age, income, education, recent life changes and the personality trait dimensions of extroversion, neuroticism, openness to experience and agreeableness did not significantly interact with health/functional ability to influence health voluntarism or volunteer leadership. Also, past volunteer behaviour and conscientiousness significantly interact with health/functional ability to influence volunteer leadership. There were no significant interaction effects of the "non-modifiable" variables with health service utilization for health voluntarism. Likewise, income, education, recent life changes, past volunteer behaviour and the personality characteristics of extroversion, neuroticism, agreeableness and conscientiousness did not significantly interact with health service utilization to influence volunteer leadership. However, the interactions between past volunteer behaviour and the personality trait "conscientiousness", and health/functional ability were found to be significant for health voluntarism, and the interactions between age and the personality trait "openness to experience", and health service utilization were found to be significant for volunteer leadership.

A large number of interactions were examined and thus care must be taken not to overgeneralize. Some interactions may have occurred by chance due to the large number of analyses performed. Several interaction effects found, however, seem to make sense and look

Table 5.30

Summary of Hierarchical Regression Analysis for the Interaction Effect of Past Volunteer Involvement x Health/Functional Ability on Health Voluntarism (n=168)

Variable	B	SE B	β
Step 1			
Past Volunteer Involvement	-.04	.03	-.10
Health/Functional Ability	.02	.02	.12
Step 2			
Past Volunteer Involvement (PV)	-.05	.03	-.12
Health/Functional Ability (HF)	.10	.04	.51*
PV x HF	-.03	.01	-.43**

Note: R^2 = .03 for Step 1; ΔR^2=.03 for Step 2 (p =.02).

* p=.01
** p=.02

Table 5.31

Summary of Hierarchical Regression Analysis for the Interaction Effect of Conscientiousness x Health/Functional Ability on Health Voluntarism (n=168)

Variable	B	SE B	β
Step 1			
Conscientiousness	-.01	.04	-.03
Health/Functional Ability	.02	.02	.14
Step 2			
Conscientiousness (C)	-.01	.04	-.01
Health/Functional Ability (HF)	-.15	.08	-.73
C x HF	.03	.02	.89*

Note: R^2 = .02 for Step 1; ΔR^2=.03 for Step 2 (p =.03).

* p=.03

Table 5.32

Summary of Hierarchical Regression Analysis for the Interaction Effect of Age x Health Service Utilization on Volunteer Leadership (n=96)

Variable	B	SE B	β
Step 1			
Age	-.04	.02	-.26*
Health Service Utilization	.12	.35	.04
Step 2			
Age	-.02	.02	-.14
Health Service Utilization	6.8	3.3	2.0**
Age x Health Service Utilization	-.09	.04	-2.0**

Note: R^2 = .06 for Step 1 (p =.05); ΔR^2=.04 for Step 2 (p =.04).

* p=.02
** p=.04

Table 5.33

Summary of Hierarchical Regression Analysis for the Interaction Effect of Openness to Experience x Health Service Utilization on Volunteer Leadership (n=96)

Variable	B	SE B	β
Step 1			
Openness to Experience	.26	.16	.16
Health Service Utilization	-.03	.35	-.01
Step 2			
Openness to Experience (OE)	.47	.19	.30*
Health Service Utilization (HS)	3.4	1.7	1.0***
OE x HS	-.72	.35	-1.0**

Note: R^2 = .03 for Step 1; ΔR^2=.04 for Step 2 (p =.04).

* p=.02
** p=.04
*** p=.05

interesting. When regression lines were plotted (see Figures 5.9, 5.10., 5.11 and 5.12), it was found that elderly individuals with little past volunteer involvement were more likely to volunteer in health-related activities when they were in good rather than poor health and when their functional ability was good. For study participants with high levels of past volunteer involvement the state of their health and functional ability did not seem to matter. Individuals with a history of greater volunteer involvement were equally involved in health voluntarism whether their health and functional ability was good or poor. It was also found that, as one would expect, individuals with high "conscientiousness" trait dimension scores were more likely to volunteer if their health and functional ability was good. Individuals who were "conscientious" and in poor health were less likely to volunteer. For individuals with low "conscientiousness" trait dimension scores the state of their health and functional ability does not really affect whether they volunteer or not. While both older and younger elderly individuals were reluctant to assume volunteer leadership positions in general, it was found that volunteers who were younger were more likely to assume a leadership role in health-related volunteer activities if they were receiving health services than not receiving services. Health service utilization did not appear to matter for older volunteers. Older volunteers were equally less likely to assume a leadership role whether receiving health services or not. When the relationships between individuals with high and low "openness to experience" trait dimensions, health service utilization and volunteer leadership were examined, it was found that willingness to volunteer in a leadership role was relatively low for all four groups. Individuals with low "openness to experience" scores were more likely to assume a volunteer leadership role if they were receiving health services. This may be because people who are

Figure 5.9

Health Voluntarism as a Function of Past Volunteer Behaviour and Health/Functional Ability

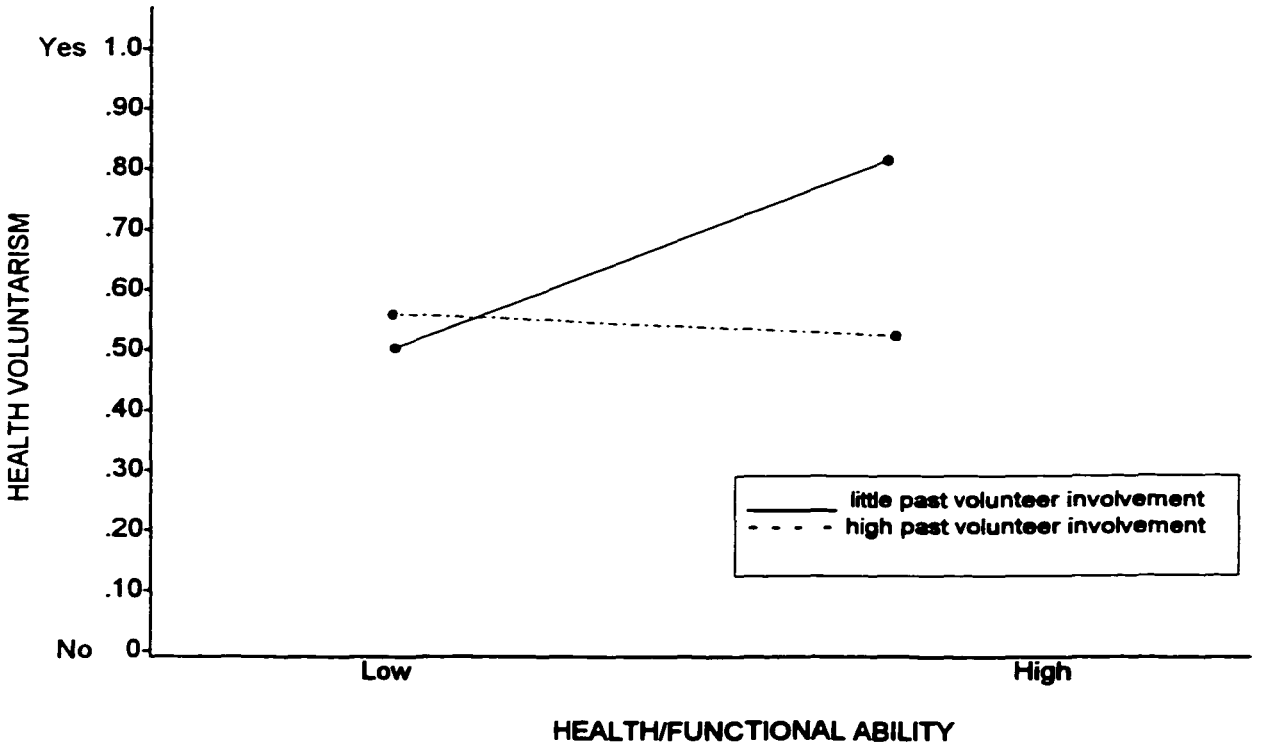


Figure 5.10

Health Voluntarism as a Function of the "Concientiousness" Trait Dimension of Personality and Health/Functional Ability

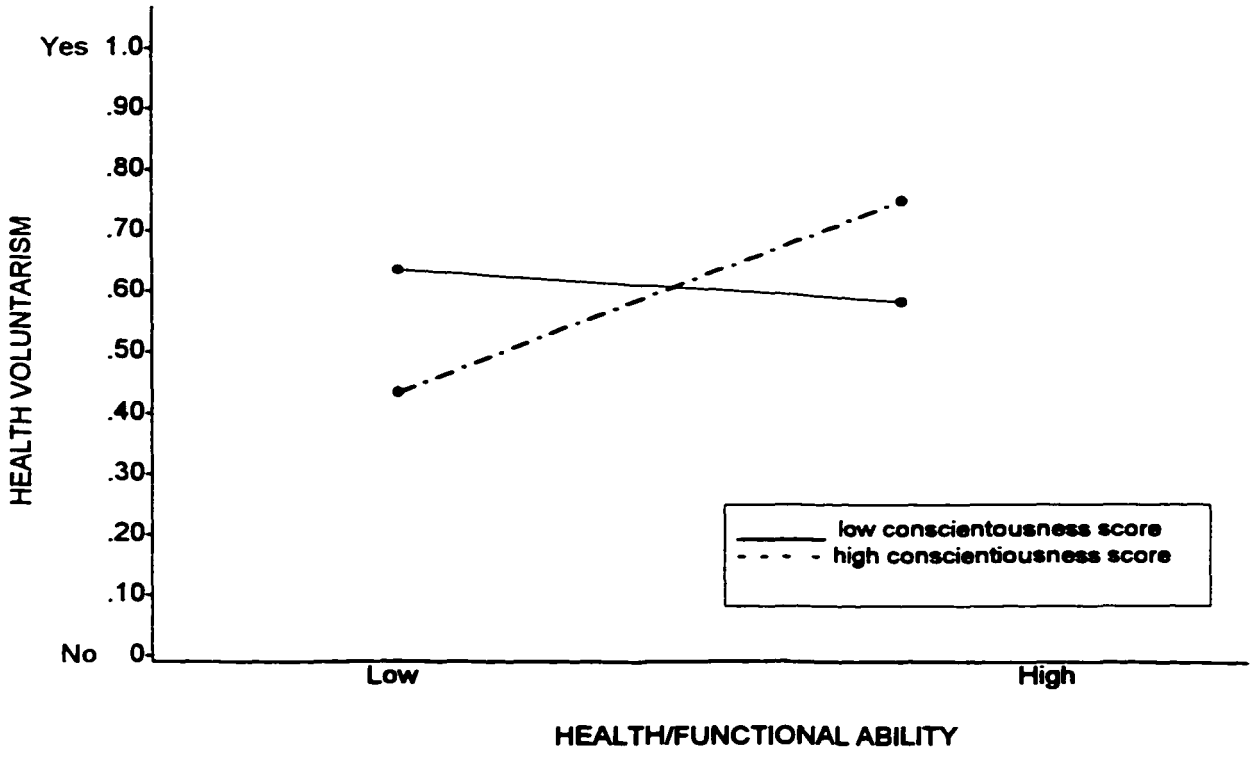


Figure 5.11

Volunteer Leadership as a Function of Age and Health Service Utilization

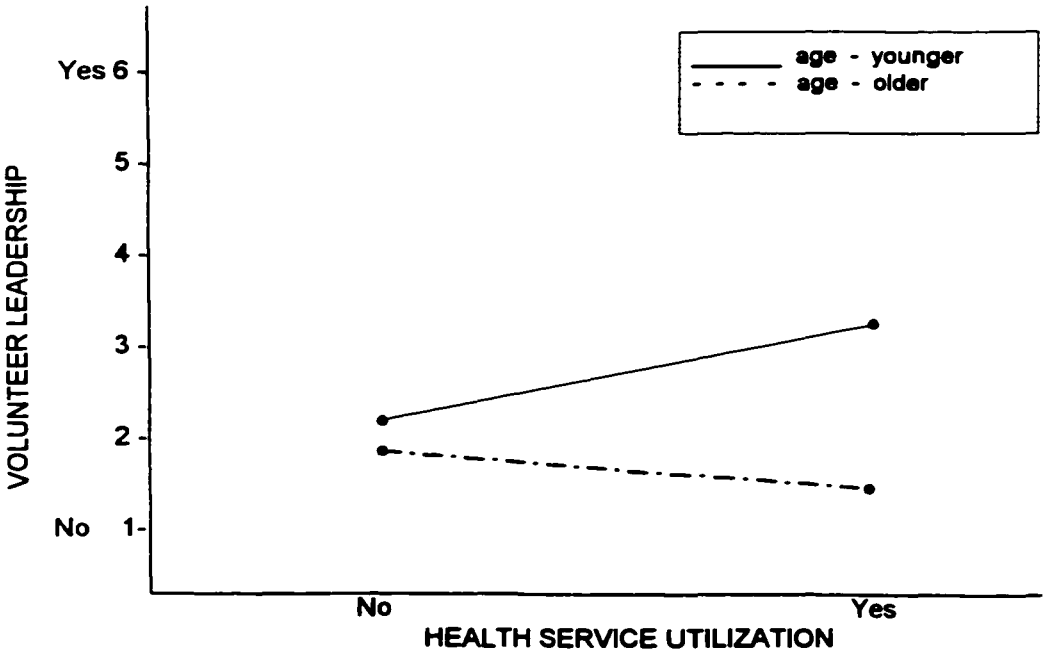
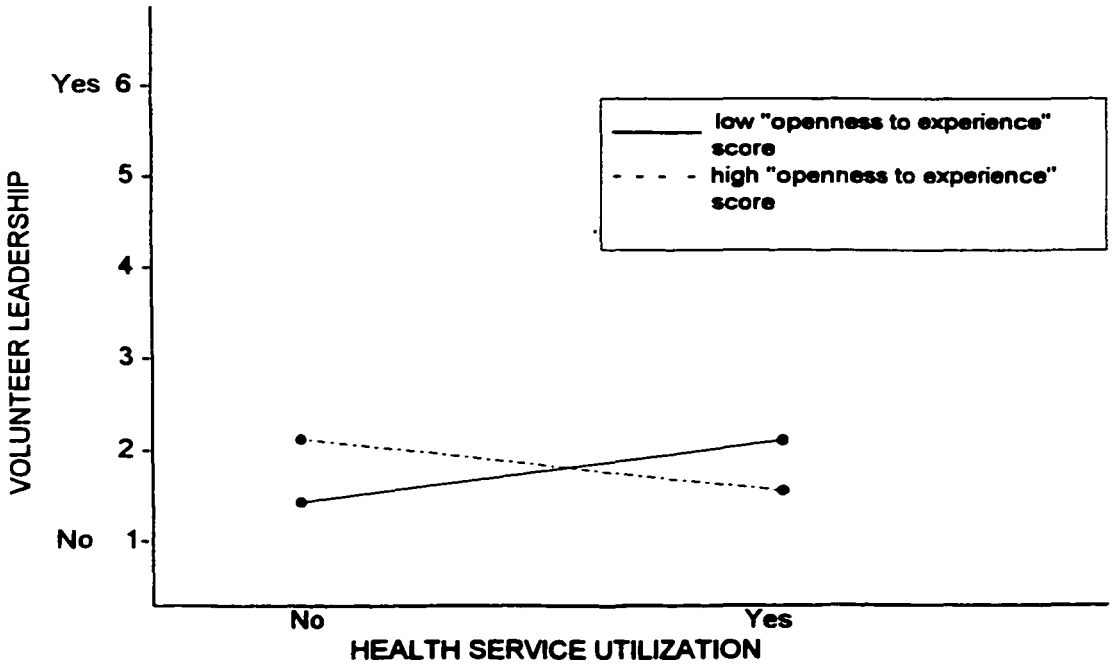


Figure 5.12

Figure 5.12

Volunteer Leadership as a Function of the "Openness to Experience" Trait Dimension of Personality and Health Service Utilization



not open to new experiences may develop greater familiarity with health services if they are using these services. These individuals may then be more willing to take on a volunteer leadership role in activities related to their health and the services they receive. Individuals with high "openness to experience" scores were less likely to assume a volunteer leadership role if receiving health services. These relationships are discussed in greater detail in Chapter VI.

CHAPTER VI

DISCUSSION AND CONCLUSIONS

This chapter assesses the findings regarding predictors of health and health service utilization of elderly individuals (Chapter IV) and the predictors of health voluntarism and volunteer leadership of elderly individuals living in the community (Chapter V), in the context of the findings reported by other researchers studying elderly individuals in a variety of different settings. The following research questions that guided this study are also addressed:

(1) How do the "modifiable" variables of health, functional ability, well-being, activity level, social resources and environmental satisfaction influence commitment to health voluntarism and volunteer leadership in health-related community action?

(2) Are the relationships being examined for research question 1 moderated by "non-modifiable" variables such as age, socio-demographic and personality variables?

(3) Do the same factors that predict health voluntarism and volunteer leadership, also predict health and health service utilization for elderly individuals?

A Summary of the Findings of Phase I

In Chapter III it was proposed that greater confidence could be placed in generalizing the findings of Phase II of the present study to other communities of older adults if the results of Phase I (which examined the predictors of health and health service utilization of elderly

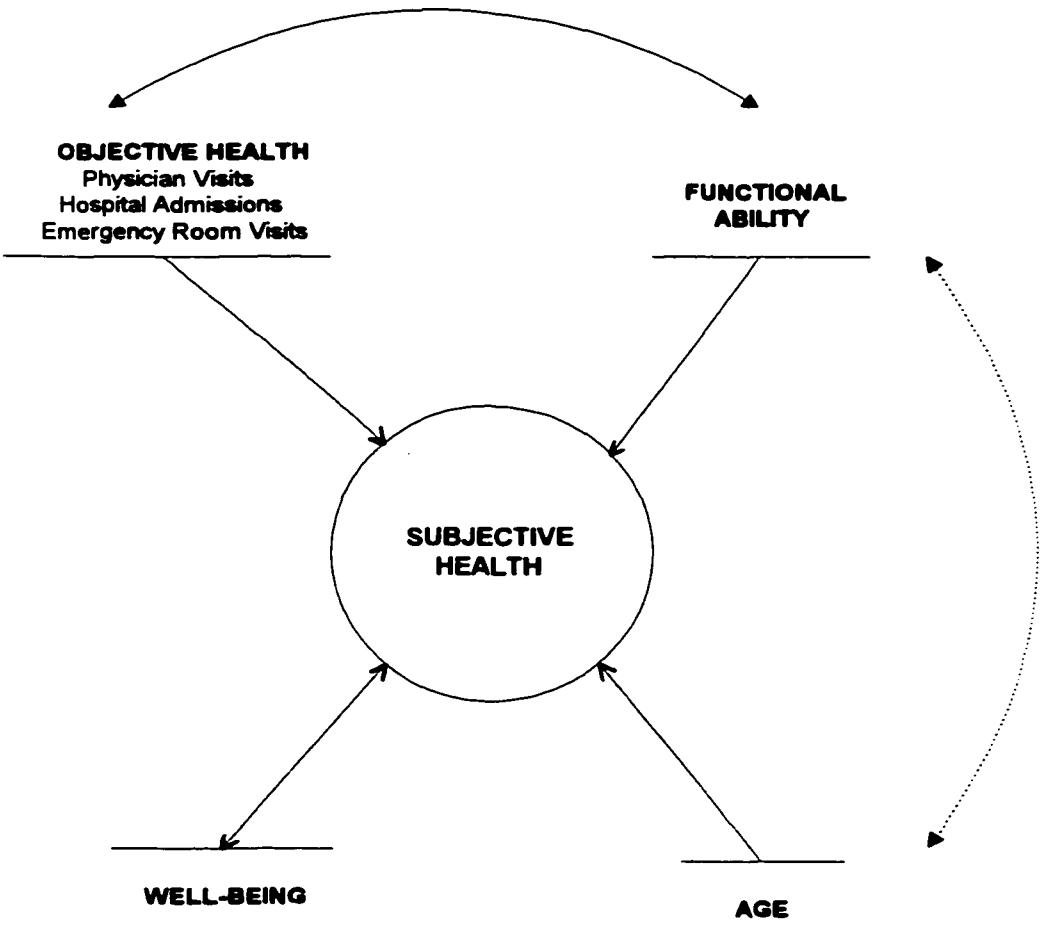
individuals) were similar to those reported by others. Many of the relationships examined in Phase I were similar to those found by others. However, some of the factors that were found to be associated with volunteering were also unique. These are discussed in more detail later in this chapter.

A Summary of the Predictors of Health. In the present study well-being, functional ability and age were identified as predictors of subjective health. Subjective health was also correlated with objective health. As expected, subjective health was negatively associated with age (at $\leq .001$ significance level). These results are consistent with the findings reported by others and thus there is confidence in generalizing the findings of Phase II of this study. Figure 6.1 outlines the factors found to be associated with the subjective health of elderly individuals in the present study.

Surprisingly, age and well-being were not found to associate with *objective* health. This finding suggests that age and well-being are not related to the number of times individuals visit their physicians. Nor are age and well-being related to the number of hospitals and emergency room admissions. The reasons for these findings are not clear. One explanation may be that the items used to measure objective health in the present study were not adequate, or that items in the present study measured another construct such as, for example, medical system utilization rather than objective health. There may also be other explanations. Intuitively, we know that older individuals get sicker and therefore the number of visits to physicians, hospitals and emergency rooms should increase. Likewise, there is much evidence to suggest that elderly individuals who are happier and more satisfied with their lives visit physicians and hospitals less often, unless the visits are routine for the

Figure 6.1

The Many Factors that Influence Subjective Health in the Present Study



purposes of regular check-ups. Elderly individuals living in the Cherryhill community may also be under-reporting their health conditions. Lavas-Mousey and Diserens (1989) suggest that the behaviours of older individuals differ from the behaviours of younger individuals with regard to health concerns. These authors suggest that elderly individuals tend to respond one of two ways to their health needs. Individuals tend to be either overly concerned about their health and the symptoms they are experiencing and overuse the health system, or individuals attribute their symptoms to the aging process, expect that they will not feel as well as they used to, and maintain their previous patterns of visiting their family physicians. Another explanation may be that elderly individuals visit their family physicians for many different reasons. Some of these reasons may have little or nothing to do with their health. For example, it has been suggested that physician visits increase at time of retirement or immediately following retirement due to the individuals' greater availability of time. Interestingly, in a previous study conducted in the Cherryhill community it was found that there was a step-up in visits to physicians at the age of 65 (retirement age), following which physician visits remained stable (Kloseck & Crilly, 1998). All participants in the present study were 55 years of age or older and 96% of the respondents in the present study were retired. Another possibility may be that there is a selection bias in the present study. It is generally agreed that the number of individuals with spouses decreases with age. It is also agreed that to live on one's own becomes increasingly common as individuals, in particular women, get older. In order to live alone, it is necessary to have reasonably good health otherwise other living arrangements such as supportive housing, residential or nursing homes options are necessary (Fried & Wallace, 1992; Salmoni, Sahai, Heard, Pong & Lewko, 1996). With the

support of a spouse, individuals even if in poor health, often have the ability to remain in their apartments. The majority of participants in the present study were older women living alone. Thus it can be argued that these elderly individuals were in good health and aging successfully. Individuals who are in poor health might only be able to remain in the Cherryhill apartment complex if they have a spouse, family member or friend to live with them and look after them.

A Summary of the Predictors of Health Service Utilization. Consistent with the findings of other researchers predictors of health service utilization in the present study included subjective and objective health, age, frequency of leaving one's apartment, having a caregiver and difficulty in getting satisfactory answers to health questions. Interestingly, individuals not receiving health services thought it easier to get satisfactory answers to their health-related questions than those receiving services. This may be because those not receiving services don't have any questions or perhaps their questions are easier or of a different nature than individuals receiving health services. It may also be that those individuals receiving health services are, out of necessity, having to communicate with many different agencies or health professionals and experiencing the fragmentation of health service delivery so frequently cited in the literature. Health service recipients may be basing their responses on these experiences which are very different from situations encountered by individuals not receiving health services who simply communicate with *one* health professional, namely their family physician.

A Summary of the Findings of Phase II

In general, the findings from the present study suggest that individuals who are older

perceived themselves to be in poorer health, have more difficulties and limitations in carrying out their day-to-day activities, use a greater number of health services and generally have lower levels of well-being. Functional ability, in particular, was found to significantly influence whether elderly individuals voluntarily become involved in the planning and provision of their own health services. Volunteers in the present study were younger, more active, received fewer health services, were less impaired in their functional ability and reported higher levels of well-being than non-volunteers. Personality also played a role in determining volunteer behaviour. Volunteers were more extroverted, open to change and agreeable than non-volunteers. These findings are consistent with volunteer, social psychological and gerontological theories such as activity theory (Havighurst & Albrecht, 1953), the general activity model (Smith et al., 1980), needs theory (Maslow, 1943) and selective dependency theory (Baltes, et al., 1993) which were outlined in Chapters I and II.

Most elderly volunteers reported they would not assume positions requiring leadership. This finding raises interesting questions for health professionals and community planners and requires further examination to determine whether current community capacity building approaches are, in fact, feasible when working with communities of very old individuals with multiple and complex health conditions. While these community development approaches may work with older adults in general, the energy and time required to work with communities of very old individuals may not make these approaches cost-effective or suitable health planning options for the elderly.

R_1: The Influence of "Modifiable" Variables on Health Voluntarism and Volunteer Leadership

Health Voluntarism. Consistent with the findings of other researchers, and as expected, variables susceptible to change which were found to influence health voluntarism included health service utilization, functional ability, well-being and activity level. Volunteers in the present study were less limited in their day-to-day functioning, more positive and satisfied with their life during the past six months, more active and required fewer health services than non-volunteers. Non-volunteers (49%) were almost twice as likely as volunteers (25%) to receive health services and required significantly more assistance with light housekeeping (at .005 significance level) than volunteers. These findings suggest that it may be possible for health professionals and community planners to increase the volunteer involvement of elderly individuals by supporting them in their day-to-day activities. Contrary to the findings of other researchers, the "modifiable" variables of health, social resources and environmental factors did not influence health voluntarism in the present study.

A surprising finding was that volunteers, while generally satisfied with their physical and social environments, were less satisfied with their neighbours than non-volunteers. One possible explanation for this may be that individuals with neighbours who have more health problems and disruptive behaviours, voluntarily become involved in health-related initiatives to see if there is something that can be done to support their neighbours and to alleviate these disruptive behaviours. Previous research and apartment building manager interviews conducted in the Cherryhill community (Kloseck & Crilly, 1998) also identified that there are many physically and cognitively impaired individuals living in the 13 apartment buildings in

the Cherryhill community whose disruptive behaviours impact the lives of other residents. The most challenging behaviours to deal with identified by both building managers and residents in the previous study were cognitive impairments and mental health conditions that put the resident in question at risk, as well as those others who live in the same building.

Why does health not influence whether elderly individuals volunteer in the present study as in other studies (Ishii-Kuntz, 1990; Ozawa and Morrow-Howell, 1988)? The type of volunteer opportunity individuals were asked to participate in may have something to do with this finding. For example, the focus of the present study was on *health-related* volunteer work. Asking frailer individuals to volunteer in activities that may actually improve their health and subsequently help them remain in the community as long as possible might be very appealing to these individuals who, under other circumstances, would not normally volunteer. This reasoning is consistent with the findings of the Canadian Policy Research Networks (1997) where seniors identified independence (making one's own decisions) as one of their two most important priorities. This notion is further supported by the results of a study conducted by Mack, Salmoni, Viverais-Dressler, Porter and Garg (1997) which examined the perceived risks of independent living of elderly individuals living in the community. These authors found that, among other things, elderly individuals will frequently fight to remain living in the community. Smith (1994), too, argues that situational factors such as receiving services from the organization one is volunteering with, or being personally asked to volunteer increases volunteer involvement. Thus, it may be that in the present study both healthy individuals and those in poorer health became involved regardless of their health, but rather because of the nature of the opportunity presented to them. Pearce (1993) found that

strengthening social and personal relationships, what he calls "cohesion commitment", was a key factor in determining volunteer behaviour. In the present study, volunteers were involved in the Cherryhill Community Project for only a very short time and may not have had sufficient time or opportunities to develop personal friendships and relationships with project staff. This explanation seems to be consistent with the findings reported by Pearce (1993). Pearce also found that one's belief in the importance of, and their commitment to, the project they are involved in ("continuance commitment") influences one's volunteer behaviour. Likewise, one's belief that personal involvement will make a difference or result in positive change ("control commitment") was also found to significantly influences volunteer involvement. The Cherryhill Community Project was in the early stages of development at time of data collection and it may be that respondents simply had not been involved long enough for change to occur in the areas identified by Pearce. There is further support that this may be the case. Volunteers who answered the social world questions on.the health voluntarism survey, which specifically asked them about their orientation, experience and commitment to the Cherryhill Community Project, reported that at the time of survey completion they felt that they were irregular participants, were gradually becoming more familiar with the project, and were just beginning to know more about others involved in the project. Perhaps if the project had been better established and in place for a longer period of time, these findings may have been similar to those reported by Pearce.

In contrast to the findings of others (Chavis & Wandersman, 1990; Golant, 1984; Heshka, 1983; Smith, 1983), the present study did not find differences in social and physical environmental factors such as "sense of community", "social relationships" or "satisfaction

with social and physical environmental factors" between volunteers and non-volunteers. Chavis and Wandersman (1990) found that "sense of community", which they operationalized as interactions with neighbours, was directly linked to volunteer involvement. In spite of similarities with research findings conducted in other communities of older adults (i.e., that age, activity level and functional ability, for example, are linked to volunteer behaviour), this concept (sense of community) and the notions of loyalty and commitment, both to the community within which one lives and to a project for which one is asked to volunteer warrants further exploration. The Cherryhill apartment complex has a very strong support system in place, neighbours look out for one another and the community has many physical supports (i.e., a shopping complex, grocery store, a variety of transportation and recreation opportunities, gardens and open spaces are readily available). Both volunteers and non-volunteers alike indicated that even if given the opportunity to move to another similar community where the cost of living is the same, they would not move. The whole concept of loyalty and commitment may have important implications for other communities of elderly individuals and needs to be examined further.

What were the motives for volunteering and reasons for not volunteering reported by Cherryhill residents? Volunteers in the present study were provided with a list of reasons for volunteering that have been consistently reported by others, and asked to rate how important these reasons were for them. Consistent with the motives reported by other elderly study participants (Heshka, 1983; Meneghetti, 1995; Moore, 1985; Pearce, 1983, 1993), the participants in the present study volunteered for altruistic reasons, personal reasons and to socialize. Contrary to the findings of Perkinson (1992), elderly volunteers in the present

study did not volunteer to keep busy, because they felt the need for belonging, or to replace lost roles associated with the aging process. As expected, the three reasons for not volunteering, as reported by non-volunteers, were poor health, being too busy and age, respectively.

Volunteer Leadership. The majority of volunteers in the present study (68%) stated they would not volunteer for a position in which they would be required to assume a leadership role. This finding has significant implications for practice and future research. Within the community development context a wide variety of volunteers, including general helpers, committee members, community representatives and chairs of community action teams, are necessary for successful sharing of "power" and decision-making to occur. The present study is unique in that it examined the volunteer behaviour of a community of *frailer, very old* individuals. The average age of study participants was 74 years and the study included participants up to 86 years of age. The fact that very few, if any, elderly individuals are willing to take on leadership positions suggests that current community development approaches may not work with communities of very old individuals. Research is needed to examine, in detail, the circumstances under which elderly individuals will volunteer for positions of leadership, the constraints and facilitators of volunteer leadership, and strategies that might be employed to encourage elderly volunteers to assume leadership positions.

R_2: The Moderating Effects of "Non-Modifiable" Variables on Health Voluntarism and Volunteer Leadership

The second research question in Phase II examined the moderating effects of "non-modifiable" variables (e.g., age; socio-economic status; life changes; gender; personality; past

volunteer experiences) on the relationship between "modifiable" variables (e.g., health; functional ability; well-being; activity level; social resources; environmental satisfaction) and health voluntarism and volunteer leadership. Only four out of all the interaction effects examined were found to be significant, the amount of variance explained by these four significant variables was quite small, and the patterns were not interpretable. For the most part the "non-modifiable" variables did not moderate the influence of health, functional ability, well-being, activity level, social resources and environmental satisfaction on health voluntarism and volunteer leadership. This information is useful because it suggests that the effects of the "modifiable" variables, on health voluntarism and volunteer leadership are relatively direct.

R_3: Factors Involved in Predicting Health Voluntarism and Volunteer Leadership, and Health and Health Service Utilization for Elderly Individuals

Similar predictor variables were found for health and health service utilization, and health voluntarism and volunteer leadership for residents of the Cherryhill community (Table 6.1). As expected age, which is not changeable, was found to be a predictor of all four dependent variables in Phases I and II of the present study. This finding suggests that individuals who are older are in poorer health, use a greater number of health services, are less likely to volunteer than younger individuals, and are less likely to assume positions of leadership. These findings are consistent with demographic trends and with the findings of other researchers studying elderly individuals in different situations. This finding also presents a major challenge for health professionals and community planners. The shift of health care resources to community settings, and the movement of involving individuals and communities

Table 6.1

Predictors of Subjective Health and Health Service Utilization (n=1231) and Health Voluntarism and Volunteer Leadership (n=181)

	Modifiable Predictors								Non-Modifiable Predictors				
Construct	Health	Health Service Utiliz.	Functional Ability	Well-Being	Social Res.	Activity Level	Difficulty Getting Answers	Environ. Factors	Personality Traits	SES	Age	Past Volunteer Behaviour	Recent Life Events
Health Voluntarism		X	X	X[1]		X			X[2]		X		
Volunteer Leadership					X[3]				X[4]		X		
Health			X	X							X		
Health Service Utilization	X		X[5]				X				X		

1 = affective (short-term) component of well-being
2 = extroversion, openness to change & agreeableness components of the 5 key personality factors
3 = satisfaction with social supports available in a variety of different situations
4 = extroversion & agreeableness components of the 5 key personality factors
5 = as operationalized by frequency of leaving one's apartment & having a caregiver

as collaborative partners in sharing responsibility for health planning and provision raises many questions when working with communities of elderly individuals with a complexity of health problems. These approaches may or may not be feasible for communities of very old individuals.

The "non-modifiable" variable of personality was also found to be a predictor of both health voluntarism and volunteer leadership. As expected, individuals who are extroverted, open to change and more agreeable are more predisposed to volunteering in health-related activities, and more likely to consider volunteering in leadership positions. For people who work with older adults, this is not a particularly surprising finding. Individuals involved in the recruitment and training of volunteers would probably identify this type of elderly individual as the type of person most likely to volunteer. From a community development context, not all individuals are equally likely to become involved in health-related volunteer activities. In order to maximize the involvement of all elderly individuals, strategies may need to be put in place to increase the involvement of those elderly individuals not normally predisposed to volunteering.

Overwhelmingly, the functional ability or limitations experienced by individuals in their day-to-day activities influenced their perception of health, their utilization of health services and their willingness to become involved in the planning and provision of their own health services. Thus, maximizing the independence of elderly individuals becomes critically important. There are many things that can be done to support elderly individuals to remain in their own homes for as long as possible, and as independently as possible. These supports may significantly enhance voluntarism and involvement by frailer, older individuals. Support

with day-to-day functioning has also been identified as preventing premature institutionalization of the elderly (The National Advisory Council on Aging, 1993). The provision of this support, however, is being seriously impacted by current health care restructuring and reforms as evidenced by the limitations to service in this area by many health care agencies. The support most needed by individuals to maintain independence appears to be *informal health support* such as assistance with homemaking (e.g., housecleaning; meal preparation; etc.). This reinforces the urgent need for private, self-arranged or community-supported health services. With the growth projections of elderly individuals during the next 10 to 20 years this will become an even more critical need.

Surprisingly, physical and social environmental factors in the present study did not influence *any* of the four dependent variables in Phase I and II. The reason for this may be the unusually high loyalty and commitment by all residents to the Cherryhill community and the property owners. It would be most interesting and timely to examine the reasons for this loyalty and commitment, as well as the social world structure of the Cherryhill community in greater detail in future studies as this information could be most beneficial to other communities of older individuals now, and in the future.

Limitations of the Study

This study has a number of limitations. First, while the Cherryhill community is similar to other communities of elderly individuals, it is also special in some ways, particularly in the commitment and loyalty demonstrated by these residents to their community. Further studies will be required to compare the results of this study with a more representative sample of elderly living in other parts of the city, as well as in rural areas. Second, there were

constraints of sample size. The timing of this dissertation influenced the number of actual volunteers available to study. At the time of Phase II data collection, the Cherryhill Community Project was in it's developmental stages and volunteer recruitment and training were just beginning. This resulted, out of necessity, in a smaller volunteer sample than normally desired and restricted the examination of a number of variables of interest. The numbers of volunteers involved in the Cherryhill Community Project to date has grown significantly, and with volunteer recruitment and training much more formally established many more research opportunities exist with this population. Third, our ability to discover the factors that are related to willingness to take on a leadership role is limited because of the 1-item measure used to measure this construct. Fourth, the large number of analyses carried out must also be noted. While variables receptive to change were of primary interest given the applied nature of this study, the moderating effects of non-modifiable variables, particularly age and socio-demographic variables for this community, on health voluntarism and leadership were also of interest and considered important. Thus, it was decided to conduct a greater number of analyses, in exploratory fashion, that would help guide follow-up studies and future research.

Implications for Practice

A major challenge exists for health professionals and community planners. Demographic trends support a significant increase in the number of elderly Canadians during the next few years, particularly those over the age of 75 years. These trends, coupled with communities becoming an integral part of health care reform in Canada, suggest that in the very near future many very old community members will be asked to share responsibility for

their health needs and those of their neighbours.

Given these demographic and health trends, in addition to the specific research questions, there were three underlying issues of interest:

(i) whether elderly community members are able and willing to become involved in their own health planning and that of their neighbours?

(ii) the factors that influence the volunteer involvement of elderly individuals?

(iii) whether current community development approaches work with communities of very old individuals and whether elderly individuals can share responsibility for health planning and health service provision?

Are elderly individuals able and willing to become involved in their own health planning and the health planning of their neighbours? The present study suggests that elderly individuals aged 55 years and older, and in particular those over the age of 75, are able and willing to volunteer in health-related activities and to help their neighbours in need. Volunteers in the present study reported that they were committed to the Cherryhill Community Project, and that they were reluctant to change from this volunteer opportunity to other volunteer work. What is uncertain is how long elderly individuals are able or willing to remain involved, as volunteer retention was not examined as part of the present study. Nor were recruitment strategies, or the effects of different types of recruitment strategies on volunteer involvement, examined. Recruitment and retention of elderly volunteers is an important area that requires further examination.

What are the factors that influence the volunteer involvement of elderly individuals? The findings of this study are consistent with the findings of other studies and suggest that there

are characteristics that are both changeable and not changeable that predispose individuals to volunteering. The *non-changeable characteristics* include age and personality. Volunteers were younger than non-volunteers, but nevertheless still quite elderly. The average age of volunteers was 74 years. Volunteers tended to be extroverted, open to change and more agreeable than non-volunteers. This would suggest that it is quite possible for elderly individuals to become involved in health-related volunteer work and to help their neighbours who are older and frailer. However, the findings also suggest that different types of recruitment strategies are needed to increase the involvement of elderly individuals who, due to different types of personality characteristics, are less likely to become involved.

The findings of this study, also, confirm that there are *changeable* factors in the lives of elderly individuals that, with the right support and intervention, might increase the volunteer involvement of these individuals. These changeable factors include the ability to function in day-to-day activities, activity level and well-being. Functional ability, in particular, was found to significantly influence the volunteer behaviour of elderly individuals. This finding seems to support the selective dependency theory described by Baltes (1988), that individuals with greater personal and self-care needs for every day living will, out of necessity, be unable to participate in other activities such as volunteering. By putting in place supports to help individuals manage their every day activities it should be possible to increase the health-related volunteer involvement of these individuals, even the very elderly individuals over the age of 75 years.

Do community development approaches work with very elderly individuals and can very elderly individuals share responsibility for their health planning and health service provision?

This question is the most difficult to answer. The findings of the present study suggest that much more research is needed to determine whether the current community development approaches being used, are in fact the most suitable strategies to use when working with communities of very old individuals. The results of this exploratory examination of volunteer leadership in a community development context suggest that this approach may not be feasible or effective when working with communities of very elderly individuals. Both volunteers and non-volunteers in the present study overwhelmingly reported that they would not assume leadership positions. The reasons for this are not clear and require further investigation.

The whole idea behind the community development approach is to provide community members with the information, knowledge and skills to build the capacity of a community as a whole to identify and mobilize the necessary resources to address community needs. Building this type of collective community capacity requires the involvement of many community members with a variety of skills to take on different roles and responsibilities. At least some of the community members must have the interest, ability and skills to be trained to take on positions of leadership. Without community leaders, community development initiatives are severely compromised and the sustainability of these initiatives is questionable; nor will there be the anticipated cost savings to the health care system. Using this approach in a community where leaders are unlikely to be found may take away valuable time and resources from an already "stretched" health system. Whether the willingness of elderly individuals to volunteer in leadership positions can be increased requires further, and more detailed investigation. If it is determined that community development approaches do not

work with communities of very old individuals, other strategies must be considered, developed and implemented.

Recommendations for Future Research

There are a number of recommendations suggested by this study for future research. These recommendations fall into three major categories: (1) the willingness and ability of very old community members to voluntarily become involved in the planning and provision of their own health care services and to assume leadership positions; (2) the whole concept of loyalty and commitment for communities of very old individuals; and (3) objective health of elderly community members.

The Willingness and Ability of Very Old Community Members to Assume Positions of Leadership. Current community development approaches and health initiatives are dependent upon community involvement and community leadership. Whether these approaches are suitable or feasible with communities of very old individuals is not yet clear. Few studies have examined these issues as they pertain to communities of frail, elderly individuals and many questions remain. For example, answers to the following research questions would prove helpful:

R_1: What are the factors that influence (1) volunteer recruitment, and (2) volunteer retention of very elderly individuals?

R_2: Does the frequency, duration and type of volunteer health supports provided to one's neighbours influence (1) the health of very elderly volunteers providing these services, and (2) the length of time very elderly volunteers are able or willing to continue in this volunteer role?

R_3: What volunteer recruitment strategies can be employed to increase the involvement in health-related initiatives by very elderly individuals?

R_4: What are the predictors of retention of very elderly volunteers (i.e., the length of time very elderly individuals willing or able to commit to health-related volunteer initiatives)?

R_5: What are the factors that influence (1) the willingness or (2) the ability of very elderly individuals to assume leadership positions?

In future studies it would also be interesting to use a variety of data analyses procedures that would, for example, examine the differences between: (1) general volunteers (any type of volunteer involvement including the Cherryhill Community Project) and non-volunteers; (2) Cherryhill volunteers, general volunteers and non-volunteers; and (3) Cherryhill volunteers who also have other general volunteer commitments in addition to the Cherryhill Community Project, individuals who volunteer with the Cherryhill Community Project only, general volunteers (non-Cherryhill Community Project involvement) and non-volunteers. This more detailed information would help to better understand the unique differences between elderly individuals who volunteer in different types of volunteer activities (i.e., involvement in familiar activities versus activities new and unfamiliar, as well as more challenging and formal).

Loyalty and Commitment in Communities of Very Old Individuals. The perceptions Cherryhill residents have about their physical and social living environment, as well as their commitment to their community raises many interesting questions that would also benefit other communities. It would be interesting to further explore the following:

R_1: Do the short-term and long-term volunteers differ in (1) their commitment to being

involved in health-related activities, and (2) their commitment to the community within which they live?

R_2: Are there differences in how short- and long-term volunteers feel about (1) their general orientation to people, activities and procedures associated with the health initiative with which they are involved, (2) their general experience with the health initiative with which they are involved, and (3) their relationship with others involved in the same health initiatives?

Objective Health of Elderly Community Members

There were some problems in the present study in establishing relationships between subjective and objective health. While not central to this dissertation, it is important for other researchers, particularly those interested in health outcomes, to take a closer look at how to measure objective health. Objective health is important both as an outcome variable and an independent variable. Objective health, operationalized as physician visits, hospital admissions and emergency room visits, is also commonly used by health researchers. The whole question of why age and well-being were not associated with objective health raises many questions and requires further investigation. For example, it would be interesting to know: (i) how the living arrangements (e.g., living alone, living with a spouse; etc.) of elderly individuals influences objective health, in particular physician visits, emergency room visits, and hospital admissions? (ii) what the predictors of physician visits, emergency room visits, and hospital admissions are? (iii) how (1) hospital admissions for "positive" events (i.e., a hip replacement which will decrease pain and increase mobility) which are chosen by the individual, and (2) hospital admissions for "negative" events (i.e., emergency

hospitalization following a stroke or heart failure) over which the individual has no control, influence the well-being of elderly individuals?

The present study has identified factors influencing the health voluntarism of frailer, elderly community members that the individuals themselves and others such as health professionals and community planners may have some control over. This suggests that strategies may be put in place to increase the involvement of elderly community members, especially very old individuals, in the planning and provision of their own health services. This study has also found, however, that it may not be possible to use existing community development approaches which, among other things, require community leaders, when working with communities of very old individuals. Canada is faced with an aging population at a time when health care budgets are under restraint. A new way of doing things is needed. Much remains to be done to determine the most feasible and effective ways of involving frailer, elderly individuals as partners in health care planning before the predicted influx of very old community-dwelling individuals, with many more health problems, that is expected in the very near future.

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APPENDICES

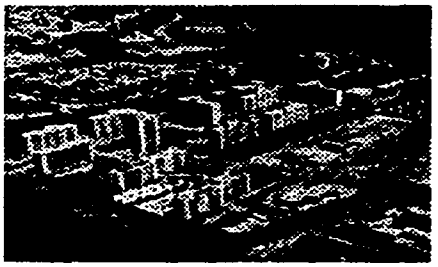
BUILDING A SELF-SUSTAINING COMMUNITY SYSTEM OF HEALTH SUPPORT FOR THE ELDERLY: THE CHERRYHILL COMMUNITY PROJECT

Executive Summary

Canada is faced with an aging population at a time when health care budgets are under restraint. A new way of doing things is needed. The trend is to move health care from the hospitals into the community, a trend which has raised many questions about the community health system's ability to cope. In turn, greater emphasis is being placed on communities to become self sufficient in providing their own care, especially in the areas of supportive services. A particular challenge is to find ways of supporting the frailer members of a community whose capacity to be their own advocates can be very limited.

The Cherryhill Community Project is a participatory action project that utilizes a community systems process to build long-term commitment and foster partnerships among community members to collaboratively work together to develop, implement and evaluate a new and innovative model of community health for the elderly that will, over time, evolve in response to the changing needs of the community and improve the health of residents living in the community. Community partners include citizens living in Cherryhill Village, property owners (ESAM Construction Ltd.), local businesses (e.g., A&P Grocery Store, Shoppers Drug Mart; etc.), city-wide health professionals and health policy makers. Specifically, the goals of the Cherryhill Community Project are to: (1) explore how elderly citizens can become more involved in the planning and provision of their own health services; (2) build community capacity to respond to, and act on, community-identified issues; (3) build and strengthen existing, untapped informal community health resources; and (4) create a *sustainable* system of shared decision-making between the Cherryhill community and formal health system; with an ultimate goal of helping elderly individuals remain in their homes and remain active in their communities as long as possible.

The Cherryhill Community Project is evaluating a new model of collaborative functioning, bringing together the community and formal health system in an integrated model of health service provision and decision-making. Phases I (August 1996-December 1997) and II (January 1998-August 1998) funded by the St. Mary's Reserve Fund, St. Joseph's Hospital, London, Ontario have now been completed. Phase III (September 1998-July 2000) of the Cherryhill Community Project is now underway with support from a growing number of community partners. As part of Phase III (September 8, 1999) the Cherryhill Health Promotion & Information Centre, Inc. was opened. The Health Centre is operated on a volunteer basis by Cherryhill community members in partnership with city-wide health professionals.

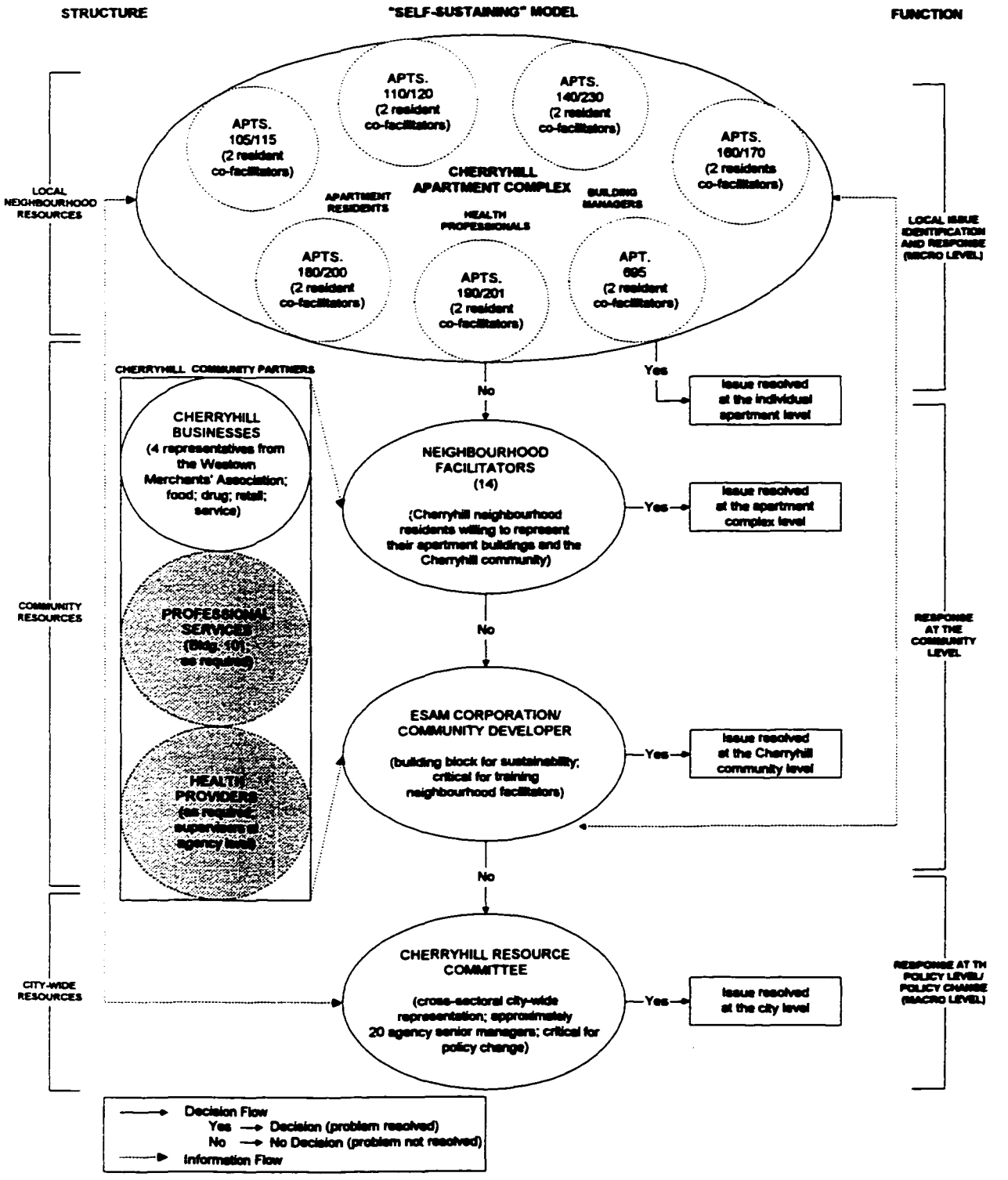


. . . seniors, health service providers, health policy makers, local businesses and the ESAM Corporation working together to build a partnership

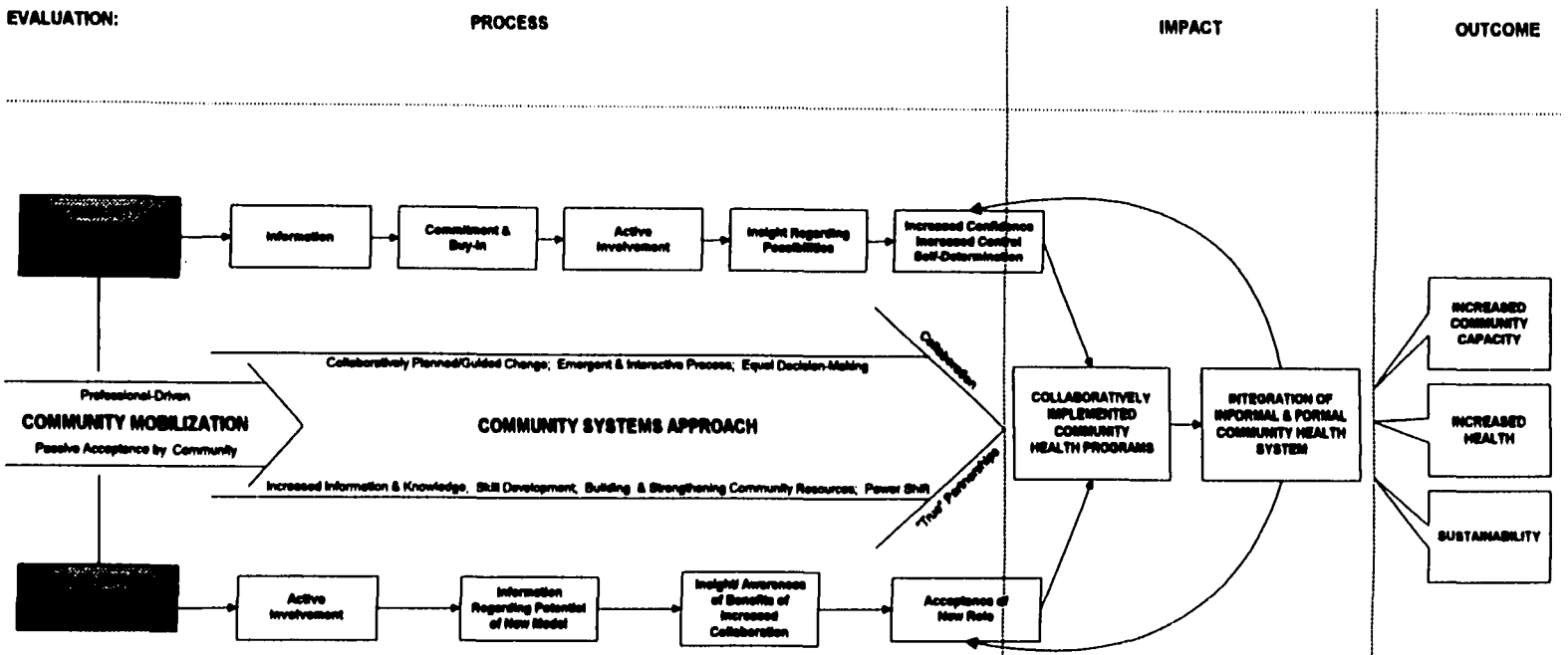
OVERVIEW OF THE CHERRYHILL COMMUNITY PROJECT

PHASE I (August 1996-December 1997) INFORMATION COLLECTION PHASE	PHASE II (January 1998-August 1998) COMMUNITY ACTION PHASE	PHASE III (September 1998-July 2000) SUSTAINABILITY PHASE
Purpose: This phase consisted of determining community interest and commitment, listening to the views of citizens, businesses and health service providers about their community's strengths, health resources, health issues of importance, challenges and possible solutions. **Processes**: ✧ community survey ✧ building manager interviews & survey ✧ local business survey ✧ city-wide health service provider survey ✧ health agencies communication "flow" log ✧ focus groups ✧ community meetings **Action**: A Steering & Advisory Committee with broad based community representation (citizens, health providers, local businesses, property/land owners, etc.) was created. Community priorities were collaboratively identified, mutual goals were established and a *Self-Sustaining Community Action Partnership Model* was collaboratively developed to guide subsequent community action and phases of this project. **(PHASE COMPLETED)**	**Purpose**: This phase focused of achieving unity and consensus on health goals and action strategies, gathering community-wide momentum to take action on community-identified health issues and implementing the *Self-Sustaining Community Action Partnership Model.* **Processes**: ✧ community meetings to guide action ✧ nominal group processes ✧ collaborative goal setting and goal achievement analyses using goal attainment scaling techniques **Action**: Community action teams (representing all community partners) were developed to respond to community-identified health issues. Community action teams include: ① Community Health Promotion & Information Centre Action Team ② Community Health Prevention Programs Action Team ③ Individual & Community Capacity Building Action Team ④ Community Caregiving Support Action Team **(PHASE COMPLETED)**	**Purpose**: This phase is now underway. The project, as such, has now ended. The central concept, that of citizens actively participating in, and sharing control of, their health service planning, provision and policy development, now starts to become a reality. **Processes**: ✧ community action teams ✧ collaborative goal achievement analyses ✧ empowerment evaluation strategies ✧ individual change strategies & indicators ✧ *collective* community capacity change strategies & indicators **Action**: ① establish a Cherryhill Community Residents' Association ② continue to build a Community Resource Committee with cross-sectoral, city-wide representation ③ create & implement the Community Health Promotion Centre ④ create, implement & evaluate co-facilitated community prevention programs ⑤ integrate informal community health resources with formal health system provided services ⑥ examine ind. differences (e.g. health; social; psychological; environmental; etc.) of elderly who participate vs. those who do not **(CURRENTLY IN PROGRESS)**

CHERRYHILL SELF-SUSTAINING COMMUNITY ACTION PARTNERSHIP MODEL



OVERVIEW OF THE CHERRYHILL COMMUNITY PROJECT EVALUATION FRAMEWORK



EVALUATION INDICATORS:

2 Units of Analyses:

Individual Level
- change at the individual level (citizens, local businesses & health service providers)

Collective Community Level
- community capacity
- incidence & prevalence of health conditions, etc.
- partner involvement in evaluation

Completed or in progress

1. Community Survey (n = 1231)
2. Community Capacity Inventory (n=158)
3. Building Manager Interviews & Survey (n = 13)
4. Community Meetings (n = 55)
5. Community Developer Focus Group (n = 10)
6. Health Agency Communication-Flow Log (n = 50)

Ongoing tracking of citizen, local business, ESAM Construction Ltd & health service provider:
- type, level, duration & frequency of involvement
- weighting of level of involvement
- policy changes
- new ways of doing business
- partnerships developed
- 'spin-off' partnerships

7. Health Service Provider Survey
8. Local Business Survey
9. Health Volunteism Survey (community survey #2 to determine individual differences between citizens involved vs. those not involved in health-related community action)
10. Resident Facilitator Interviews (3 mthly intervals)
11. Community Partner Interviews (annually)

1. Goal achievement evaluation (using Goal Attainment Scaling procedures) by community partners for the following community action teams:
   - Health Information & Prevention Centre
   - Community Prevention Programs
   - Resident & Community Capacity Building

   including evaluation of:
   - intentional change (goal achievement)
   - unintentional change (goal-free change)
2. Pre-post measures for specific prevention programs

   Ongoing tracking of:
   - utilization of programs implemented
   - informal & formal health supports established
   - health programs, services & supports amenable to (1) community ownership, (2) shared ownership, & (3) health system ownership
   - degree of community involvement in developing, implementing & evaluating community health programs

1. Analysis of nature & degree of self-sustaining community action partnership model implementation
2. Aggregation & analysis of Goal Attainment Scaling Scores to determine overall achievement of outcome variables & ability of Cherryhill community to collectively bring about change and work together with the formal health system in health program planning & provision
3. Re-administration & pre-post analysis of Community Survey (health version)
4. Community Ownership Scale

Definition of Terms

The following definitions are provided to help ensure consistent interpretation of key terminology.

(1) elderly: For the purpose of the present study this term refers to individuals who are over the age of 55 years. The term "young old" or "young elderly" refers to individuals aged 55 to 74 years of age; the term "old" or "very old" elderly refers to individuals 75 years of age or older. These definitions are consistent with those commonly used in the fields of medicine, health and gerontology. The term "frail old" individuals is used to refer to those individuals aged 75 years or older who have multiple health problems and who require formal health services or supports.

(2) community: Many different conceptualizations of the term "community" are found in sociological, health promotion and leisure literature, for example, community defined as a group of people, operationalized as a particular location or place, used to refer to relationships (i.e., common interests, experiences, etc.) or operationalized as collaborative action related to political or social change (Chavis & Wandersman, 1990; Checkoway, 1995; Hawe, 1994; Shiell & Hawe, 1996). For the purpose of this study "community" is defined as being more than a shared geographic area and, consistent with leisure and health promotion literature, refers to a neighbourhood with an established social network and support system that is responsive to both individual, as well as broader neighbourhood needs (Hawe, 1994; Lloyd, 1991; Pedlar, 1996; Shiell & Hawe, 1996). Inherent in this definition is the notion of citizens caring about one another and working together on individual as well as common concerns.

(3) community development: The terms "community mobilization", "community development" and "community-based" are often operationalized in different ways in the literature and many times, incorrectly used interchangeably. These terms, in fact, have very distinct meanings (Pedlar, 1996; Shiell & Hawe, 1996). For example, Shiell and Hawe (1996) argue "community development programmes in their purest form start with no fixed agenda or health issue" (p. 243). Inherent in community development are such concepts as self-determined and driven action by a community (rather than professionally determined action), the notion of empowerment and transferring of control, voluntary collective action to produce change, capacity building, broad-based action that strengthens the community as a whole (i.e., empowers citizens, strengthens economic, environmental resources within the community, etc.); it is a process that, in general, improves the quality of life in one's community (Arai, 1996; Chavis & Wandersman, 1990; Hellman, 1996; Kretzman & McKnight, 1993; Ontario Healthy Communities Coalition, 1998; Pedlar, 1996; Shiell & Hawe, 1996). Community mobilization is typically viewed as falling under the "umbrella" of the broader concept of community development. While community mobilization shares many similarities with the concept of community development (i.e., a process that is community-driven and sustained, relies heavily on the concept of empowerment, leads to a better community, etc.), the fundamental difference is that with community mobilization an issue is *introduced* to a community (possibly from external sources) and then the community building process begins from that point onward. A community is mobilized around a particular issue (Figure 1.1).

Community mobilization or action typically involves introducing a particular project or issue of interest to a community, determining the degree of willingness of the community to become involved, collaboratively establishing mutual goals, fostering and gaining community-wide, long-term commitment, collectively identifying issues of importance, community strengths, barriers, challenges and possible solutions, the community assuming ownership of previously identified and evolving issues and the formation of solid community base from which future action is generated (Ontario Ministry of Health, 1991 & 1996; Ontario Prevention Clearinghouse, 1996; Ontario Round Table on Environment and Economy, 1995). Much like community development, community mobilization is a dynamic, ever evolving process that is responsive to the particular needs of a community at any given point in time. Community-based programming or service provision, on the other hand, is an entirely different concept that is externally driven and more individually focussed, with specific services being provided (based on professionally identified need) in community settings (Pedlar, 1996). Community-based programs or services are typically determined, planned, implemented and run by health professionals.

(4) community systems approach: The *community systems approach* is similar to other community approaches (e.g., community development; community mobilization; health promotion and prevention; etc.) in that it also incorporates the concepts of community capacity building, health promotion and better co-ordination of services. However, this approach differs from the others in that it also includes all levels of stakeholders or community partners (e.g., funders; planners; service providers; as well

as local communities) from the onset as *equal* partners, sharing decision-making around health issues. This approach ensures the best use of health resources (informal and formal system-provided) to build the capacity of local communities and improve the health of all individuals residing in these communities. Integral to the community systems approach is the willingness and ability to be innovative with available community and system resources, and to make better use of what already exists (rather than adding new resources) by linking all partners in the planned change process.

(5) community capacity: Community capacity refers to the ability of a community to harness it's skills, knowledge and resources to collectively work with the formal health system to determine action around community-identified health issues. Community capacity implies a shift in"power" from the traditional "top-down" approach (health system/professional driven approach), equal and shared decision-making, negotiating and problem-solving between all partners (i.e., community and formal health system). It also implies *long-term* community management of community-identified issues.

(6) health: While it is recognized that "health" is a broad concept influenced by many different factors, including physical, social, environmental and economic factors, for the purpose of this study "health" refers to formal, specialized, system-provided health services (e.g., home care; homemaking; nursing, physiotherapy, and occupational therapy services; meal delivery services; etc.); not informal or private, self-arranged needs and supports (e.g., shopping and transportation assistance; friendly visiting;

etc.).

(7) functional ability: Functional ability refers to abilities required for every day living (e.g., bathing; dressing; meal preparation; etc.).

(8) activity level: Activity level refers to the wide variety of day-to-day activities individuals participate in including socializing and visiting with friends and family, recreation activities, involvement in community organizations, housework, worship, personal care, shopping, volunteer work, and political activities.

(9) well-being: Well-being refers to how individuals feel about their life in general. Both short-term (affective) and long-term (dispositional) well-being are being examined in the present study.

(10) extroversion: Individuals who are high on the extroversion personality trait, operationalized through Costa and McCrae's (1988) definition, are highly energetic individuals who look for excitement, are assertive, willing to take risks and generally positive emotionally.

(11) neuroticism: Individuals who are high on the neuroticism personality trait, operationalized through Costa and McCrae's (1988) definition, are self-conscious and often feel anxious, depressed or distressed.

(12) openness to experience: Individuals who are high on the openness to experience personality trait, operationalized through Costa and McCrae's (1988) definition, are flexible, open to new ideas, like variety and enjoy cultural activities.

(13) agreeableness: Individuals who are high on the agreeableness personality trait, operationalized through Costa and McCrae's (1998) definition, are straightforward,

trusting and enjoy helping others.

(14) conscientiousness: Individuals who are high on the conscientious personality trait, operationalized through Costa and McCrae's (1998) definition, are organized, self-disciplined, orderly in the way they go about doing things and usually strive to achieve things.

CHERRYHILL/WESTOWN COMMUNITY PROJECT

..... seniors, service providers and local businesses working together to build a partnership for the future

CHERRYHILL COMMUNITY SURVEY

Instructions

This survey contains 3 sections with three different versions of Section C. Each survey contains Sections A and B but only one version of Section C:

Section A: Asks general questions about you, your living arrangements and your health.

Section B: Asks your opinion on what makes Cherryhill such a desirable community to live in. It also asks you to identify specific assets or strengths of the Cherryhill community.

Section C: Asks you to identify things that might be done differently in your community to better meet your needs.

Please complete this survey during the next week when you have a few moments. It should take approximately 20 minutes to fill out. **Thank you for your time and support.**

SECTION A

1. What year did you move to Cherryhill? _____

2. Sex: ❑ Male ❑ Female

3. In what year were you born? _____

4. Please name the job you held longest?

_____

5. Are you currently working for pay? ❑ Yes ❑ No

6. Marital Status (check one):

❑ single ❑ married
❑ widowed ❑ divorced
❑ separated ❑ common-law

120 Cherryhill Drive, Unit 614
London, Ontario N6H 4N9
Tel: (519) 670-1456
Fax: (519) 438-7776

7. What are your current living arrangements? With whom do you live (check one):

- ❑ Alone
- ❑ Spouse/Partner
- ❑ Other Family Member (e.g., child)
- ❑ Friend/Roommate
- ❑ Other Please specify: _____

8. Do you currently have a caregiver or helper? ❑ Yes ❑ No

If yes, who is your caregiver or helper (check one)?

- ❑ Relative
- ❑ Friend
- ❑ Health Professional
- ❑ Other Please specify: _____

9. Are you providing care to someone you live with? ❑ Yes ❑ No

If no, skip to Question 10.

If yes,

a) please circle the number on the following scale that best describes how much stress you feel at this point in time:

0 1 2 3 4 5 6 7 8 9 10

Not at all Stressed — Somewhat Stressed — Extremely Stressed

b) What are your biggest challenges?

_____

_____

_____

c) How well do you feel you are coping with your situation? Please circle the number that best describes how you feel:

0_____1_____2_____3_____4_____5_____6_____7_____8_____9_____10

Coping very well — Coping reasonably well — Not coping well at all

d) What would help you better deal with your situation?

_____

_____

_____

10. Five categories of citizens have been identified as living in the Cherryhill apartment complex. Which of the following categories best describes you? (check one):

- ❑ senior (55+ years) healthy and actively involved in activities in the Cherryhill community and/or elsewhere in the London area
- ❑ senior (55+ years) healthy but prefer to spend most of your time in your apartment
- ❑ senior (55+ years) with greater health needs who has difficulty leaving, or cannot leave, your apartment without support
- ❑ younger resident (non-senior) with a physical disability
- ❑ other (student, professional, etc.)

11. How frequently do you leave your apartment building? (check one):

- ❑ nearly every day
- ❑ 3 to 5 days per week
- ❑ 1 to 2 days per week
- ❑ mostly on weekends
- ❑ once every two weeks
- ❑ once per month
- ❑ less than once per month
- ❑ almost never

12. In general, would you say your health is (circle the number that best describes how you feel):

1	2	3	4	5
Excellent	Very Good	Good	Fair	Poor

13. Please circle the response that best describes whether each of the following statements are true or false for you:

	Definitely True	Mostly True	Not Sure	Mostly False	Definitely False
I am somewhat ill	1	2	3	4	5
I am as healthy as anybody I know. . .	1	2	3	4	5
My health is excellent.	1	2	3	4	5
I have been feeling bad lately.	1	2	3	4	5

14. How much control do you feel you have over your state of health? Please circle the number that best describes how you feel:

1	2	3	4	5
No control		Some control		A great deal of control

15. Which of the following statements best describes your situation? (check one):

- ❑ I am so busy I rarely have any free time for myself.
- ❑ I am busy but still manage to find some time for myself
- ❑ I have a satisfactory balance in my life with adequate free time.
- ❑ I have more free time for myself than I need.
- ❑ I have difficulty filling my day; time seems to pass slowly.

16. Most of us feel bored from time to time. On the following scale please circle the number that best describes how you feel:

0_____1_____2_____3_____4_____5_____6_____7_____8_____9_____10

Never bored — Bored some of the time — Extremely bored most of the time

17. To what extent do you feel that you have control over your lifestyle or feel that you are able to change your situation if you wished. Please circle the number that best describes how you feel:

0_____1_____2_____3_____4_____5_____6_____7_____8_____9_____10

Full control over my situation — Some control to change my situation — No control over my situation

18. Please use the following scale to rate how satisfied you are with your life, in general, at this point in time. Circle the number that best describes how you feel.

0_____1_____2_____3_____4_____5_____6_____7_____8_____9_____10

Not at all satisfied — Somewhat satisfied — Extremely satisfied

SECTION B

Cherryhill is often described as a very desirable community within which to live. Please help us identify how Cherryhill has come to earn this good reputation.

1. Please list up to 5 things you like **MOST** about living in the Cherryhill area. Please list these in order of priority (For example, 1 = what you like the most, 2 = what you like next, etc.):

   1. _____
   2. _____
   3. _____
   4. _____
   5. _____

2. Please list up to 5 things you like **LEAST** about living in the Cherryhill area. Please list these in order of priority (For example, 1 = what you like the very least, 2 = what you like next least, etc.):

   1. _____
   2. _____
   3. _____
   4. _____
   5. _____

3. To what extent do you feel a part of the Cherryhill community? Please circle the number that best describes how you feel.

0 1 2 3 4 5 6 7 8 9 10

Not at all a part of the community — Sometimes a part of the community — Very much a part of the community

4. When you have questions about health, where is the first place you look for answers?

- ❑ Ask a friend
- ❑ Ask a family member
- ❑ Ask a doctor or nurse
- ❑ Look it up in a book
- ❑ Other (please specify): _____

5. How difficult is it for you to get satisfactory answers to your health questions? Please circle the number that best describes how you feel:

1	2	3	4	5
Usually easy to get answers		Sometimes easy and sometimes difficult		Always a problem

6. What would help you find the answers to your questions more quickly?

_____

_____

_____

7. Are you currently receiving health services such as homemaking, nursing services, help with personal care, etc.? ❑ Yes ❑ No

If no, please skip to Section C.

If yes, what services are you receiving and by whom are these services provided (please list):

		Agency	Family/Friends
1.	_____	❑	❑
2.	_____	❑	❑
3.	_____	❑	❑
4.	_____	❑	❑
5.	_____	❑	❑

8. Do you feel you have any input into the **type of health services** that are provided to you? Please circle the number that best describes how you feel:

1_____2_____3_____4_____5_____6_____7
No input — A great deal of input

9. Do you feel you have any input into **how often** these health services are provided to you? Please circle the number that best describes how you feel:

1_____2_____3_____4_____5_____6_____7
No input — A great deal of input

10. Do you feel you have any input into the **time of day** these services are provided to you? Please circle the number that best describes how you feel:

1_____2_____3_____4_____5_____6_____7
No input — A great deal of input

11. Do you feel you would like more input into the type of health services that are delivered to you and how often they are delivered?

❑ Yes ❑ No

SECTION C - HEALTH

We are attempting to get a health profile of the Cherryhill community. This will help in identifying needs and in planning services accordingly. Please respond as accurately as you can, remembering that all information is anonymous and confidential.

MEDICATION USE

1. Are you currently taking any prescribed medication? ❑ Yes ❑ No

   If no, skip to Question 5.

   If yes, please check the number of prescription medications you are currently taking:

   ❑ 0
   ❑ 1
   ❑ 2-4
   ❑ 5 or more

   Please list all the prescribed medication you are taking and for what purpose you are taking this medication:

	Medication	Purpose
①	_____	_____
②	_____	_____
③	_____	_____
④	_____	_____
⑤	_____	_____
⑥	_____	_____
⑦	_____	_____
⑧	_____	_____

2. Do you have difficulty keeping track of your medication? ❑ Yes ❑ No

3. Do you use a system (for example, a Dosette) to help you remember to take your medication? ❑ Yes ❑ No

4. How are these medications:

a) renewed? (check one)

- ❑ see doctor
- ❑ phone doctor
- ❑ pharmacist phones doctor

b) delivered or picked up (check one)

- ❑ picked up personally
- ❑ friend or family member picks up
- ❑ delivered

5. Are you currently taking any over-the-counter medication (one for which you don't need a prescription)? ❑ Yes ❑ No

If no, skip to Question 6.

If yes, please check the number of over-the-counter medications you are currently taking:

- ❑ 0
- ❑ 1
- ❑ 2-4
- ❑ 5 or more

Are your over-the-counter medications any of the following: (check all that apply)

- ❑ pain medication such as Tylenol, Aspirin, etc.?
- ❑ vitamins?
- ❑ antacids, for indigestion or stomach upset?
- ❑ laxatives?
- ❑ cough/cold products?
- ❑ antihistamines, for allergy or hay fever?
- ❑ medication applied directly to the skin
- ❑ eye drops?
- ❑ other? Please specify: _____

HEALTH SERVICE UTILIZATION

6. Have you been admitted to hospital during the past 6 months?

❑ Yes ❑ No

If yes, why? _____

7. How many times did you visit your doctor during the past year? (check one)

- ❑ 0 visits
- ❑ 1-2 visits
- ❑ 3-4 visits
- ❑ 5 or more visits

8. Do you have someone to call in the case of an emergency? ❑ Yes ❑ No

If yes, whom? (check one)

- ❑ family
- ❑ friend
- ❑ neighbour
- ❑ other Please specify: _____

9. How often do you need to call someone for help? (check one)

- ❑ more than 2-3 times per week
- ❑ about 1 time per week
- ❑ 1-2 times per month
- ❑ less than 1 time per month
- ❑ never

10. Did you have emergency room visits during the past year? ❑ Yes ❑ No

If yes , for what reason? _____

11. Do you use any of the following Cherryhill/Westown area health services? Please check all that apply:

St. Joseph's Family Medical and Dental Centre	Dentist	❑ Yes	❑ No
	Doctor	❑ Yes	❑ No
101 Cherryhill Office Building			
Dr. Mussani		❑ Yes	❑ No
Dr. McClure/London Ear Clinic		❑ Yes	❑ No

Cherryhill Rehabilitation Clinic	❑ Yes	❑ No
Dr. Pilecki/Optometrist	❑ Yes	❑ No
Dr. Wainwright	❑ Yes	❑ No
Dr. Watson/Chiropractor	❑ Yes	❑ No
Dr. Saari/Dentist	❑ Yes	❑ No
C.N.I.B.	❑ Yes	❑ No
190 Cherryhill Circle		
Dr. Fodemesi	❑ Yes	❑ No

Other (please list): _____

_____

_____

If you do not use any health care services in the Cherryhill area, why not? (check one)

- ❑ already have a doctor/dentist I am happy with
- ❑ offices are difficult to get to
- ❑ other Please specify: _____

_____

_____

12. What additional services could be offered in the Cherryhill/Westown area to better meet your needs? Please check all that apply:

- ❑ audiology (hearing)
- ❑ chiropody (foot clinic)
- ❑ diet counselling
- ❑ massage therapy
- ❑ healthy living seminars
  Specific topics of interest: _____

  _____

- ❑ other services of interest
  Please list: _____

  _____

  _____

There are certain very common problems that older people run into. Many of these are treatable and can be helped by specific programs. It would help us in planning services if we had some idea of how common these problems are in the Cherryhill/Westown community. Please help by answering the following confidential questions.

13. Do you experience falls? ❑ Yes ❑ No

If yes, how often? (check one)
- ❑ Daily
- ❑ Several times per week
- ❑ Several times per month
- ❑ Several times per year

14. Do you use a mobility aid? (check all that apply)

- ❑ None
- ❑ Cane
- ❑ Walker
- ❑ Scooter
- ❑ Wheelchair

15. Have you ever broken your hip? ❑ Yes ❑ No

16. Have you broken any other bones in the last 5 years? ❑ Yes ❑ No

If yes, what have you broken? _____

17. Has a doctor ever told you that you have osteoporosis (thin bones)?

- ❑ Yes
- ❑ No
- ❑ Don't know

18. Do you have a problem holding your urine? ❑ Yes ❑ No

19. Do you ever have urinary accidents (incontinence)? ❑ Yes ❑ No

If yes, how often?
- ❑ Daily
- ❑ Several times per week
- ❑ Less often

20. Do you have difficulty with your memory? ❑ No
❑ Yes but infrequently
❑ Frequently

21. Do you wear glasses or contact lenses? ❑ Yes ❑ No

When you wear these, how good is your eyesight? (check one)

- ❑ Can read a standard newspaper
- ❑ Can read a book with enlarged print, or using a magnifier
- ❑ Cannot read, but can recognize people I know across the street
- ❑ Cannot recognize people I know across the street

When was the last time you saw an eye doctor for a new prescription? _____

22. Do you use a hearing aid or other device to help you hear? ❑ Yes ❑ No

When you use this, how good is your hearing? (check one)

- ❑ Can hear people talking at a normal level
- ❑ Can hear people talking but only if they raise their voice
- ❑ Cannot take part in most conversations

23. Do you currently receive home health care services? ❑ Yes ❑ No

If no, skip to Question 24.

If yes, please answer the following on the next page:

a) What kinds of services you are receiving, by whom they are provided and how helpful you feel these services are. (check all that apply)

b) What kinds of services you feel you need but are <u>not</u> receiving and how important these services are to you. (check all that apply)

SERVICES	BY WHOM ARE THESE SERVICES PROVIDED (check all that apply)			HOW SATISFIED ARE YOU WITH THE SERVICES YOU RECEIVE (circle the number that best describes how you feel)	HOW HELPFUL DO YOU FEEL THESE SERVICES ARE (circle the number that best describes how you feel)
	Family/ Friends	Agency (paid by you)	Agency (through HomeCare)		
Homemaking				Not satisfied Very satisfied	Not helpful Very helpful
❑ House cleaning - light	❑	❑	❑	1 2 3 4 5	1 2 3 4 5
❑ House cleaning - heavy	❑	❑	❑	1 2 3 4 5	1 2 3 4 5
❑ Laundry	❑	❑	❑	1 2 3 4 5	1 2 3 4 5
❑ Food Preparation	❑	❑	❑	1 2 3 4 5	1 2 3 4 5
Personal Support				Not satisfied Very satisfied	Not helpful Very helpful
❑ Toileting	❑	❑	❑	1 2 3 4 5	1 2 3 4 5
❑ Grooming/Hygiene	❑	❑	❑	1 2 3 4 5	1 2 3 4 5
❑ Ambulation	❑	❑	❑	1 2 3 4 5	1 2 3 4 5
❑ Bathing	❑	❑	❑	1 2 3 4 5	1 2 3 4 5
❑ Dressing	❑	❑	❑	1 2 3 4 5	1 2 3 4 5
Professional Services				Not satisfied Very satisfied	Not helpful Very helpful
❑ Nursing	❑	❑	❑	1 2 3 4 5	1 2 3 4 5
❑ Physiotherapy	❑	❑	❑	1 2 3 4 5	1 2 3 4 5
❑ Occupational Therapy	❑	❑	❑	1 2 3 4 5	1 2 3 4 5
❑ Speech/Language	❑	❑	❑	1 2 3 4 5	1 2 3 4 5
❑ Social Work	❑	❑	❑	1 2 3 4 5	1 2 3 4 5
❑ Nutrition	❑	❑	❑	1 2 3 4 5	1 2 3 4 5
Support Services				Not satisfied Very satisfied	Not helpful Very helpful
❑ Shopping Assistance	❑	❑	❑	1 2 3 4 5	1 2 3 4 5
❑ Home Foot Care	❑	❑	❑	1 2 3 4 5	1 2 3 4 5
❑ Home Maintenance	❑	❑	❑	1 2 3 4 5	1 2 3 4 5
❑ Pastoral Care	❑	❑	❑	1 2 3 4 5	1 2 3 4 5
❑ Meal Delivery	❑	❑	❑	1 2 3 4 5	1 2 3 4 5
❑ Home Eye Care	❑	❑	❑	1 2 3 4 5	1 2 3 4 5
❑ Friendly Visiting	❑	❑	❑	1 2 3 4 5	1 2 3 4 5

SERVICES	I FEEL I NEED THESE SERVICES BUT AM NOT RECEIVING THEM (check all that apply)	HOW IMPORTANT ARE THESE SERVICES TO YOU (circle the number that best describes how you feel about the service you think you need)
Homemaking		Not too important — Very important
House cleaning - light	❑	1 2 3 4 5 6 7
House cleaning - heavy	❑	1 2 3 4 5 6 7
Laundry	❑	1 2 3 4 5 6 7
Food Preparation	❑	1 2 3 4 5 6 7
Personal Support	____	Not too important — Very important
Toileting	❑	1 2 3 4 5 6 7
Grooming/Hygiene	❑	1 2 3 4 5 6 7
Ambulation	❑	1 2 3 4 5 6 7
Bathing	❑	1 2 3 4 5 6 7
Dressing	❑	1 2 3 4 5 6 7
Professional Services	____	Not too important — Very important
Nursing	❑	1 2 3 4 5 6 7
Physiotherapy	❑	1 2 3 4 5 6 7
Occupational Therapy	❑	1 2 3 4 5 6 7
Speech/Language	❑	1 2 3 4 5 6 7
Social Work	❑	1 2 3 4 5 6 7
Nutrition	❑	1 2 3 4 5 6 7
Support Services	____	Not too important — Very important
Shopping Assistance	❑	1 2 3 4 5 6 7
Home Foot Care	❑	1 2 3 4 5 6 7
Home Maintenance	❑	1 2 3 4 5 6 7
Pastoral Care	❑	1 2 3 4 5 6 7
Home Braille Instruction	❑	1 2 3 4 5 6 7
Home Eye Care	❑	1 2 3 4 5 6 7
Counselling	❑	1 2 3 4 5 6 7
Meal Delivery	❑	1 2 3 4 5 6 7
Oxygen Delivery	❑	1 2 3 4 5 6 7
Friendly Visiting	❑	1 2 3 4 5 6 7

24. Do you have any health problems you are worrying about that are not being looked after? ❑ Yes ❑ No

If yes, what sort of problems? Please specify:

_____

_____

_____

_____

25. If you are receiving home health services what is your overall level of satisfaction with the services you receive? Please circle the number that best describes how you feel.

0_____1_____2_____3_____4_____5_____6_____7_____8_____9_____10

Not at all Satisfied — Somewhat Satisfied — Extremely Satisfied

26. Are you a smoker? ❑ Yes ❑ No

If yes, how many cigarettes do you smoke during any given day? _____

27. Are you a social drinker? ❑ Yes ❑ No

If yes, approximately how many drinks per week? _____

THANK YOU FOR TAKING THE TIME TO FILL OUT THIS SURVEY

PLEASE TAKE A MOMENT TO TELL US HOW YOU FEEL

(This section is <u>OPTIONAL</u> and may be separated from the survey and deposited in the <u>DRAW BOX</u> in your lobby with your draw entry form)

Do you have any "helping" skills or services that you are willing to share with other residents of the Cherryhill community? For example, many people need assistance with transportation, filling in income tax forms, grocery shopping or would just like to have a friendly visitor. Please list anything you would be willing to offer/share with others living in your community:

	Already Doing	Willing to Offer	Voluntarily	For a Fee
_____	❑	❑	❑	❑
_____	❑	❑	❑	❑
_____	❑	❑	❑	❑
_____	❑	❑	❑	❑
_____	❑	❑	❑	❑

Name: _____

Address: _____

Phone: _____

In the fall of 1997 we will be forming a long-term, committed community base (the Cherryhill Resource Steering Committee) from which to plan, develop and co-ordinate action on issues identified by your community. This committee will have representation from Cherryhill citizens, landlords, the ESAM group, Westown Plaza Mall businesses and health service providers. Involvement will require a degree of commitment, effort and time.

Are you interested in being involved on the Cherryhill Resource Steering Committee? If so, please let us know how to contact you:

Name: _____

Address: _____

Phone: _____

VERSION 2: COMMUNITY

SECTION C- GENERAL

COMMUNITY RESOURCES & PHYSICAL ENVIRONMENT

1. Do you feel the Cherryhill neighbourhood is secure/safe?

Inside the apartment buildings	❑ Yes	❑ No
Outside in the Cherryhill community	❑ Yes	❑ No

If no, why not? _____

_____

What would help? _____

_____

2. Where do you currently post your mail?

- ❑ Westown Post Office
- ❑ Mailbox- across from 190 Cherryhill

3. Is mailing letters difficult for you? ❑ Yes ❑ No

If yes, why? _____

_____

4. If a "buddy system" or "safety check" system were available in your building would you be interested in this? For example, someone living in your building would check with you daily to make sure that you are okay.

❑ Yes ❑ No

5. Do you think it would be helpful if anyone is concerned about you or your health, that they contact someone who would then meet with you to discuss your health further?

❑ Yes ❑ No

6. Which of the following Cherryhill activities are you involved in?

	Participate in	Aware of, but do NOT participate in	Did not know this was available
Walking Club	❑	❑	❑
Green Acres Health Club	❑	❑	❑
Westown Mall Library	❑	❑	❑
Cherryhill Activity Club	❑	❑	❑
Cherryhill Garden Plots	❑	❑	❑
Outdoor Pool	❑	❑	❑
Tennis Courts	❑	❑	❑
Fleetway 40 Bowling Alley	❑	❑	❑
Tuesday Afternoon Socials at Westown Mall	❑	❑	❑
Chelsey Park Programs	❑	❑	❑
In-Mall Promotions (for example, health fairs, euchre tournaments, etc.)	❑	❑	❑

If you are not involved, is there anything that can be done so that you would consider being involved?

_____

_____

_____

7. How satisfied are you with your leisure (for example, your involvement in personally satisfying and meaningful activities). On the following scale please circle the number that best describes how you feel:

0_____1_____2_____3_____4_____5_____6_____7

Not at all satisfied — Very satisfied

8. Are your spiritual needs being met? ❑ Yes ❑ No

9. Do you feel there is a need for interdenominational church services to be held on Sundays in the Cherryhill community? ❑ Yes ❑ No

SOCIAL ACTIVITIES

10. What organizations, clubs or programs do you belong to or are you regularly involved in outside of the Cherryhill community?

❶ _____

❷ _____

❸ _____

❹ _____

❺ _____

11. How lonely do you feel at this time in your life? Please circle the number that best describes how you feel.

0_____1_____2_____3_____4_____5_____6_____7

Not at all lonely — Very lonely

12. Do you have family/friends who:

a) Visit regularly? ❑ Yes ❑ No

If yes, how often?
- ❑ Daily
- ❑ Weekly
- ❑ Monthly
- ❑ Less than once per month

b) Telephone regularly? ❑ Yes ❑ No

If yes, how often?
- ❑ Daily
- ❑ Weekly
- ❑ Monthly
- ❑ Less than once per month

13. If a "social room" was possible in each of the apartment buildings, would you use this room?

❑ Yes ❑ No

TRANSPORTATION

14. What type of transportation do you use? Please check all that apply and how often you use this form of transportation.

Type	How often used?			
	Daily	Weekly	Monthly	Don't Use
Personal vehicle	❑	❑	❑	❑
Taxi	❑	❑	❑	❑
City bus	❑	❑	❑	❑
LTC community bus	❑	❑	❑	❑
Paratransit	❑	❑	❑	❑
Other (family/friends, etc.)	❑	❑	❑	❑
Buses provided by churches	❑	❑	❑	❑
Memorial Boys & Girls Club bus	❑	❑	❑	❑
Other	❑	❑	❑	❑

(Other: please list: _____)

INFORMATION NEEDS

15. What information do you need or would you like? Please check all that you are interested in.

- ❑ financial planning
- ❑ nutrition information
- ❑ making your apartment safe
- ❑ stopping smoking
- ❑ healthy eating for one
- ❑ homecare/health related information
- ❑ information regarding what is available in the Cherryhill community
- ❑ social activities and programs in the Cherryhill community
- ❑ other Please specify: _____

16. Where should these sessions be held?

- ❑ Westown Mall
- ❑ Cherryhill Activity Club - Building 190
- ❑ in individual apartment buildings
- ❑ Other Please explain: _____

17. Do you regularly watch or read any of the following information/advertising:

ESAM 59 channel	❑ Yes	❑ No
Westown Mall bulletin board	❑ Yes	❑ No
Bulletin board in the mailroom of each apartment building	❑ Yes	❑ No
Westown newsletter	❑ Yes	❑ No

Other Please list: _____

If no, why not? What suggestions do you have for improving the information system: _____

_____

_____

THANK YOU FOR TAKING THE TIME TO FILL OUT THIS SURVEY

1. Do you shop at Westown Mall? ❑ Yes ❑ No

2. Do the stores in Westown Mall meet your needs? Circle the number that best describes how you feel:

1_____2_____3_____4_____5_____6_____7

Do not meet my needs — Meet my needs very well

3. How do you find the businesses serve you? Please circle the number that best describes how satisfied you feel with their service.

1_____2_____3_____4_____5_____6_____7

Not at all satisfied — Extremely satisfied

4. Currently there are vacancies in Westown Mall. What stores/services would you like to see? Please list in order of importance.

❶ _____

❷ _____

❸ _____

5. Westown Mall offers a number of social activities. For example, on Tuesday afternoons music and entertainment are provided. What would make you come to the mall more often? What other activities would you like to see? Please list in order of importance.

❶ _____

❷ _____

❸ _____

6. If Westown Mall offered wheelchair loans or a coat/parcel check service, would you use these services?

Wheelchair loan	❑ Yes	❑ No
Coat check service	❑ Yes	❑ No
Parcel check service	❑ Yes	❑ No

7. Do you feel businesses in the mall have a good understanding of the challenges of growing older or having a disability (check one)?

❑ Yes
❑ No
❑ Some but not all
❑ Doesn't apply to me

8. Is there anything that the Westown businesses can do to serve you better? Please list:

❶ _____
❷ _____
❸ _____

9. If transportation were provided from your apartment building to Westown Mall on a regular basis (for example a community bus or shuttle), would you use this transportation? ❑ Yes ❑ No

If yes, how often? ❑ daily ❑ weekly ❑ monthly

If yes, when? ❑ morning
❑ afternoon
❑ evening

10. Where do you currently do your grocery shopping?

_____ A&P Westown Mall
_____ elsewhere

If elsewhere, why? _____

11. Do you currently use a home grocery shopping service? ❑ Yes ❑ No

12. If the Westown A&P offered a home grocery shopping service would you use it?

❑ Yes ❑ No

If yes, how often? ❑ daily
❑ weekly
❑ monthly

If yes, would you be willing to pay for this service? ❑ Yes ❑ No

THANK YOU FOR TAKING THE TIME TO FILL OUT THIS SURVEY

CHERRYHILL VILLAGE
COMMUNITY HEALTH VOLUNTARISM SURVEY

Survey Number: _____

Apartment Building: _____ Unit: _____

Socio-Demographic Questions

The following questions ask for general information about you, for example, how long you have lived in Cherryhill Village, your current living arrangements and other similar questions that will help provide us with some background information on the people living in Cherryhill Village.

1. How many years have you lived in the Cherryhill community? _____ years

2. In what year were you born? _____

3. Are you: ❑ male ❑ female

4. What is your current marital status? Are you:

   ❑ single ❑ married
   ❑ widowed ❑ divorced
   ❑ separated ❑ common-law

5. What are your current living arrangements? Do you live:

   ❑ alone
   ❑ with your spouse or partner
   ❑ with an other member of your family (e.g., child; parent; etc.)
   ❑ with a friend or roommate
   ❑ or with someone other than mentioned above
   (please specify: _____)

6. What is the highest level of education you have attained? Have you completed:

   ❑ public school (1-8 years)
   ❑ high school (9-12 years)
   ❑ college (diploma)
   ❑ university with a Bachelor's degree

- ❑ university with a Master's degree
- ❑ university with a Ph.D. or M.D.
- ❑ other education (please specify: _____)
- ❑ have no schooling

7. Please tell me the main job you and your spouse held the longest:

   a) What was YOUR main occupation? _____

   b) What was your husband (or wife's) main occupation? _____

8. Are YOU currently working for pay?

   - ❑ yes (please specify: _____)
   - ❑ no

9. Please tell me whether you have any of the other following skills. I will read a list of skills to you, please let me know all the skills you feel you have:

   i) Professional Skills:
   - ❑ health care skills such as, for example, nursing
   - ❑ business skills
   - ❑ secretarial skills
   - ❑ computer skills
   - ❑ other skills (please specify: _____)

   ii) Trade Skills:
   - ❑ plumbing skills
   - ❑ electrical skills (e.g., electrician)
   - ❑ carpentry skills
   - ❑ painting skills (e.g., interior/exterior house painter)
   - ❑ gardening or landscaping skills
   - ❑ other skills (please specify: _____)

   iii) Homemaking Skills: (please specify: _____)

10. Generally, speaking do you usually have sufficient income to do the things you want to do? Please tell me where you would rate yourself on a scale of 1 (not enough income to do what I want) to 6 (more than enough income to do what I want):

1_____2_____3_____4_____5_____6

Not enough income to do the things i want to do

More than enough income to do the things I want to do

11. *During the past year* have you experienced any of the following major changes in your life:

Have you:

- ❑ become retired?
- ❑ lost a spouse?
- ❑ lost a child (e.g., son or daughter)?
- ❑ lost a close friend?
- ❑ moved to a new place of residence?
- ❑ been told that you have a major illness or condition?
- ❑ been required to provide primary care for a family member or relative?
- ❑ experienced any other major changes in your life? (please specify: _____)

12. Have you been told by your doctor that you have any health conditions or illnesses?

❑ no ❑ yes

If yes, what health conditions or illnesses do you have?

a) _____
b) _____
c) _____
d) _____
e) _____

Environmental Conditions

The next set of questions asks your opinion about Cherryhill Village, the Cherryhill apartment complex and how satisfied you are with the community within which you live.

13. How satisfied are you with the following aspects of your community? For each question please tell me how you would rate your level of satisfaction on a scale of 1(not at all satisfied) to 6 (extremely satisfied):

a) How satisfied are you with your apartment building?

1_____2_____3_____4_____5_____6

Not at all Satisfied — Extremely Satisfied

b) How satisfied are you with the grounds around your apartment building?

1_____2_____3_____4_____5_____6

Not at all Satisfied — Extremely Satisfied

c) How satisfied are you with the health services available to you in your home?

1_____2_____3_____4_____5_____6

Not at all Satisfied — Extremely Satisfied

d) How satisfied are you with other services and resources (e.g., programs; retail stores; professional services; etc.) available in your community?

1_____2_____3_____4_____5_____6

Not at all Satisfied — Extremely Satisfied

e) How satisfied are you with the way you are treated by the ESAM staff, the owners of the apartment complex?

1_____2_____3_____4_____5_____6

Not at all Satisfied — Extremely Satisfied

f) How satisfied are you with your neighbours?

1_____2_____3_____4_____5_____6
Not at all Satisfied — Extremely Satisfied

14. If you could, would you move to another similar community where the cost is the same? On a scale of 1 to 6 please tell me how you feel about moving to another community, with 1 being "no, I like it here" to 6 "yes, I would definitely move":

1_____2_____3_____4_____5_____6
No, I Would Not Move I Like it Here — Yes, I Would Definitely Move

Cherryhill Community Project Information (Health Voluntarism)

The next set of questions asks your opinions about the Cherryhill Community Project and the Cherryhill Community Survey.

15. What can you tell me about the Cherryhill Community Project?

- ❑ I know nothing about the Cherryhill Community Project
- ❑ I've heard about the Cherryhill Community Project
- ❑ I have good knowledge about the Cherryhill Community Project

16. Are you currently volunteering with the Cherryhill Community Project?
❑ yes ❑ no

17. If yes, how many hours each week do you volunteer for the Cherryhill Community Project? _____ hours per week (0 if none)

18. If not, have you given your name to help with the Cherryhill Community Project?

❑ yes ❑ no

19. If you are not currently volunteering with this project, please tell me how likely it is that you will volunteer for the Cherryhill Community Project during the coming year?

1_____2_____3_____4_____5_____6

Not at all Likely to Volunteer — Most Definitely Will Volunteer

20. If you are willing to help, how many hours per week do you think you might be able to give to help with this project? _____ hours per week (0 if none)

If respondent is not currently volunteering or is not willing to volunteer please skip to question 24.

21. Some volunteer positions with the Cherryhill Community Project involve leadership, for example, chairing a committee or being a representative for other residents living in your community. On a scale of 1 (not at all likely) to 6 (most definitely will) please tell me how likely is it that you will volunteer for a leadership position?

1_____2_____3_____4_____5_____6

Not at All Likely — Most Definitely Will

22. I am going to ask you a few questions about how you feel about the Cherryhill Community Project. For each of the next 4 questions please tell me which of the following answers *best* describes how you feel:

a) In general, how do you feel about the people, activities and practices that make up the Cherryhill Project:

- ❑ I feel like an outsider; uncomfortable; I really don't feel part of the Cherryhill Community Project
- ❑ I am more of an observer or irregular participant; sometimes it's fun or rewarding to be a part of the Cherryhill Community Project
- ❑ I am a regular participant in the Cherryhill Community Project
- ❑ I am an insider; the Cherryhill Community Project is an important part of who I am

b) In general, what has your experience been with the Cherryhill Community Project:

- ❑ I am unsure about what I can and cannot do and how to do it
- ❑ I am learning more about the Cherryhill Community Project and gradually becoming more familiar with this project
- ❑ I have a good understanding of the Cherryhill Community Project and am routinely involved in this project
- ❑ I am a resident facilitator and create opportunities for others to become involved in the Cherryhill Community Project

c) In general, what is your relationship with others involved in the Cherryhill Community Project:

- ❑ I really don't know anyone
- ❑ I get to know people but only for brief periods of time
- ❑ I know others' names and bits about their personal lives
- ❑ I have personal friendships and close associations with others involved in the Cherryhill Community Project

d) In general, what is your commitment to the Cherryhill Community Project:

- ❑ I am basically indifferent
- ❑ As long as the Cherryhill Community Project is enjoyable, or provides the benefits I want, I'll remain as a member
- ❑ I feel a sense of belonging; I intend to continue indefinitely as a member
- ❑ I encourage others to become involved in the Cherryhill Community Project and help others to discover how being involved can make a difference in their lives

23. For each of the next few questions about the Cherryhill Community Project please answer "yes" or "no" to describe how you feel about each of the statements:

a) Even if close friends recommended other volunteer work, I would not change my present involvement in the Cherryhill Community Project for other volunteer work. ❑ yes ❑ no

b) To change my volunteer work from the Cherryhill Community Project to other volunteer work, would require major rethinking ❑ yes ❑ no

c)	It would not be difficult to change my beliefs about the Cherryhill Community Project	❑ yes	❑ no
d)	I like to participate in the Cherryhill Community Project because it makes me feel important	❑ yes	❑ no
e)	I prefer to participate in the Cherryhill Community Project because it comes close to reflecting my lifestyle	❑ yes	❑ no
f)	When I participate in the Cherryhill Community Project it reflects the kind of person I am	❑ yes	❑ no
g)	I am knowledgeable about the Cherryhill Community Project	❑ yes	❑ no
h)	I consider myself to be an educated volunteer regarding the Cherryhill Community Project	❑ yes	❑ no
i)	I don't really know that much about the Cherryhill Community Project	❑ yes	❑ no
j)	My preference to participate in the Cherryhill Community Project is my own decision, freely chosen from several alternatives	❑ yes	❑ no
k)	I am fully responsible for my decision to participate in the Cherryhill Community Project	❑ yes	❑ no
l)	I did not control the decision on whether to participate in the Cherryhill Community Project	❑ yes	❑ no
m)	I freely choose the Cherryhill Community Project over other volunteer options	❑ yes	❑ no

24. There are many reasons why people may not have time to volunteer with special projects. If you are not volunteering with the Cherryhill Community Project please tell me what some reasons might be as to why you are not volunteering:

a) _____
b) _____
c) _____

General Volunteer Behaviour Questions

The following questions ask about your past and present volunteer experiences, in general, other than your volunteer work related to the Cherryhill Community Project.

25. All of the following are reasons people give for volunteering. Some of the questions are very personal and it is important that you answer honestly about your personal reasons for volunteering. For each of the following questions please rate how important this reason for volunteering is for you from 1 (not at all important) to 6 (extremely important):

a) I volunteer to help others.

1_____2_____3_____4_____5_____6

Not at All Important — Extremely Important

b) I volunteer for personal reasons and because a particular volunteer opportunity is of interest to me.

1_____2_____3_____4_____5_____6

Not at All Important — Extremely Important

c) I volunteer to learn new skills.

1_____2_____3_____4_____5_____6

Not at All Important — Extremely Important

d) I volunteer to socialize and meet people.

1_____2_____3_____4_____5_____6

Not at All Important — Extremely Important

e) I volunteer because my friends are involved in a certain project.

1_____2_____3_____4_____5_____6

Not at All Important — Extremely Important

f) I volunteer because I have nothing else to do and have lots of free time.

1_____2_____3_____4_____5_____6

Not at All Important — Extremely Important

g) I volunteer for other reasons (please specify _____).

1_____2_____3_____4_____5_____6

Not at All Important — Extremely Important

26. About how many hours of volunteer work do spend in other areas, other than the Cherryhill Community Project? _____ hours per week (0 if none)

What are you involved in?

a) _____
b) _____
c) _____
d) _____
e) _____

27. Please tell me about your past volunteer involvement. In the years before your retirement did you ever participate in volunteer activities, for example, any unpaid work on a regular basis such as coaching or helping with your child's sports team or helping with school activities?

a) In general, how much time did you spend volunteering in the past?
_____ hours per week (0 if none)

b) In general, what were you involved with?

_____
_____
_____
_____
_____

c) In general, how long were you involved in this volunteer work?
_____ number of years

Health Questions

The next few questions ask you how you feel about your health.

28. For each of the next 4 questions, please pick the response that best describes how you feel about each of the following statements.

	Definitely True	Mostly True	Not Sure	Mostly False	Definitely False
I am somewhat ill	1	2	3	4	5
I am as healthy as anybody I know	1	2	3	4	5
My health is excellent	1	2	3	4	5
I have been feeling bad lately	1	2	3	4	5

29. In general, would you say your health is:

1 Poor 2 Fair 3 Good 4 Very Good 5 Excellent

30. To what extent do physical, mental or health problems limit your daily activity?

1 Not at All Limited 2 3 Somewhat Limited 4 5 Extremely Limited

31. What are the main condition or health problems causing you to be limited in your activities?

a) _____
b) _____
c) _____

32. *During the past 12 months*, how many days have you spent in a hospital, nursing home or convalescent home? _____ days (0 for none)

33. *During the past 12 months*, how many times did you visit your doctor?
_____ doctor visits

34. How many times *per week* do you call someone for help? _____ times per week

35. Are you currently receiving any home care services, for example, nursing care, help with bathing, help around the home, physiotherapy or meal delivery?

❑ yes ❑ no

If yes, what type of services are you receiving:

<u>Homemaking</u>
- ❑ housecleaning - light
- ❑ housecleaning - heavy
- ❑ laundry
- ❑ food preparation

<u>Personal Support</u>
- ❑ toileting
- ❑ grooming/hygiene
- ❑ ambulation
- ❑ bathing
- ❑ dressing

<u>Professional Service</u>
- ❑ nursing
- ❑ physiotherapy
- ❑ occupational therapy
- ❑ speech/language
- ❑ social work
- ❑ nutrition

Support Services

- ❑ shopping assistance
- ❑ home foot care
- ❑ home maintenance
- ❑ pastoral care
- ❑ home braille instruction
- ❑ home eye care
- ❑ counseling
- ❑ meal delivery
- ❑ oxygen delivery
- ❑ friendly visiting

General Well-Being

The next few questions ask how you are feeling about your life in general.

36. The following questions ask about how things have been going for you lately. Please answer "yes" or "no" for each question to best describe how you feel:

During the past month have you felt . . . .

in high spirits?	❑ yes	❑ no
particularly content with your life?	❑ yes	❑ no
down, depressed or very unhappy?	❑ yes	❑ no
flustered as you didn't know what was expected of you?	❑ yes	❑ no
bitter about the way your life has turned out?	❑ yes	❑ no
generally satisfied with how your life has turned out?	❑ yes	❑ no

I am just as happy as when I was younger.	❑ yes	❑ no
As I look back on my life, I am fairly well satisfied.	❑ yes	❑ no
Things are getting worse as I get older.	❑ yes	❑ no
Little things bother me more this year.	❑ yes	❑ no
Life is hard for me most of the time.	❑ yes	❑ no
I am satisfied with my life today.	❑ yes	❑ no

Activity Level

The following questions ask about other activities that you participate in.

37. Please tell me how often you participate in:

	1	2	3	4	5
Socializing (not with family)	< than 1x/yr	1-11x/yr	1-3x/mth	1-6x/wk	daily
Visiting with family members (by telephone or in-person)	< than 1x/yr	1-11x/yr	1-3x/mth	1-6x/wk	daily
Gardening	< than 1x/yr	1-11x/yr	1-3x/mth	1-6x/wk	daily
Reading	< than 1x/yr	1-11x/yr	1-3x/mth	1-6x/wk	daily
TV/Radio	< than 1x/yr	1-11x/yr	1-3x/mth	1-6x/wk	daily
Sit and Think	< than 1x/yr	1-11x/yr	1-3x/mth	1-6x/wk	daily
Caring for older/younger family members	< than 1x/yr	1-11x/yr	1-3x/mth	1-6x/wk	daily
Arts/Crafts/Hobbies	< than 1x/yr	1-11x/yr	1-3x/mth	1-6x/wk	daily
Walking	< than 1x/yr	1-11x/yr	1-3x/mth	1-6x/wk	daily
Fraternal/Community organizations/Clubs (not church related)	< than 1x/yr	1-11x/yr	1-3x/mth	1-6x/wk	daily

Housework	1_____2_____3_____4_____5 < than 1x/yr 1-11x/yr 1-3x/mth 1-6x/wk daily
Meditation/Worship (Church)	1_____2_____3_____4_____5 < than 1x/yr 1-11x/yr 1-3x/mth 1-6x/wk daily
Personal Care	1_____2_____3_____4_____5 < than 1x/yr 1-11x/yr 1-3x/mth 1-6x/wk daily
Napping	1_____2_____3_____4_____5 < than 1x/yr 1-11x/yr 1-3x/mth 1-6x/wk daily
Shopping	1_____2_____3_____4_____5 < than 1x/yr 1-11x/yr 1-3x/mth 1-6x/wk daily
Cards/Games	1_____2_____3_____4_____5 < than 1x/yr 1-11x/yr 1-3x/mth 1-6x/wk daily
Volunteer work	1_____2_____3_____4_____5 < than 1x/yr 1-11x/yr 1-3x/mth 1-6x/wk daily
Writing	1_____2_____3_____4_____5 < than 1x/yr 1-11x/yr 1-3x/mth 1-6x/wk daily
Working part-time/full time	1_____2_____3_____4_____5 < than 1x/yr 1-11x/yr 1-3x/mth 1-6x/wk daily
Sports	1_____2_____3_____4_____5 < than 1x/yr 1-11x/yr 1-3x/mth 1-6x/wk daily
Political activities	1_____2_____3_____4_____5 < than 1x/yr 1-11x/yr 1-3x/mth 1-6x/wk daily

Theatre/Cinema	1	2	3	4	5
	< than 1x/yr	1-11x/yr	1-3x/mth	1-6x/wk	daily
Other: _____	1	2	3	4	5
	< than 1x/yr	1-11x/yr	1-3x/mth	1-6x/wk	daily

Social Resources

The following questions ask about your present relationships. In particular, the questions ask about whether there are people in your life who you feel give you help or support. There are 2 parts to each question. The first asks you to list the people you know whom you feel you can count on for the type of support described; the second asks how satisfied you are with your overall level of support in the described area from very 1 (very unsatisfied) to 6 (very satisfied):

38. a) Please tell me, whom can you really count on to be dependable when you need help?

_____._____ relationship to you: _____
_____._____ relationship to you: _____
_____._____ relationship to you: _____
_____._____ relationship to you: _____
_____._____ relationship to you: _____
_____._____ relationship to you: _____
_____._____ relationship to you: _____

b) How satisfied are you with the overall level of support you have when you need help?

1	2	3	4	5	6
Very Unsatisfied	Fairly Unsatisfied	A little Unsatisfied	A little Satisfied	Fairly Satisfied	Very Satisfied

39. a) Please tell me, whom can you really count on to help you feel more relaxed when you are under pressure or tense?

____.____	relationship to you: _____
____.____	relationship to you: _____
____.____	relationship to you: _____
____.____	relationship to you: _____
____.____	relationship to you: _____
____.____	relationship to you: _____
____.____	relationship to you: _____

b) How satisfied are you with the overall support you have when you need to feel more relaxed and when you are under pressure?

1	2	3	4	5	6
Very Unsatisfied	Fairly Unsatisfied	A little Unsatisfied	A little Satisfied	Fairly Satisfied	Very Satisfied

40. a) Please tell me, who accepts you totally, including both your worst and your best points?

____.____	relationship to you: _____
____.____	relationship to you: _____
____.____	relationship to you: _____
____.____	relationship to you: _____
____.____	relationship to you: _____
____.____	relationship to you: _____
____.____	relationship to you: _____

b) How satisfied are you with the overall support you have in this area?

1	2	3	4	5	6
Very Unsatisfied	Fairly Unsatisfied	A little Unsatisfied	A little Satisfied	Fairly Satisfied	Very Satisfied

41. a) Please tell me, whom can you really count on to care about you, regardless of what is happening to you?

____.____ relationship to you: _____
____.____ relationship to you: _____
____.____ relationship to you: _____
____.____ relationship to you: _____
____.____ relationship to you: _____
____.____ relationship to you: _____
____.____ relationship to you: _____

b) How satisfied are you with this?

1	2	3	4	5	6
Very Unsatisfied	Fairly Unsatisfied	A little Unsatisfied	A little Satisfied	Fairly Satisfied	Very Satisfied

42. a) Please tell me, whom can you really count on to help you feel better when you are feeling generally down-in-the-dumps?

____.____ relationship to you: _____
____.____ relationship to you: _____
____.____ relationship to you: _____
____.____ relationship to you: _____
____.____ relationship to you: _____
____.____ relationship to you: _____
____.____ relationship to you: _____

b) How satisfied are you with this?

1	2	3	4	5	6
Very Unsatisfied	Fairly Unsatisfied	A little Unsatisfied	A little Satisfied	Fairly Satisfied	Very Satisfied

43. a) Please tell me, whom can you count on to console you when you are very upset?

____.____ relationship to you: _____
____.____ relationship to you: _____
____.____ relationship to you: _____
____.____ relationship to you: _____
____.____ relationship to you: _____
____.____ relationship to you: _____
____.____ relationship to you: _____

b) How satisfied are you with the overall support you have when you need someone to console you when you are very upset?

1	2	3	4	5	6
Very Unsatisfied	Fairly Unsatisfied	A little Unsatisfied	A little Satisfied	Fairly Satisfied	Very Satisfied

Personality Traits & Disposition

The following questions ask how you would describe yourself.

44. Given the following characteristics, please tell me which characteristics best describe you by rating yourself from 1 (not at all like me) to 6 (exactly like me)?

a) Are you a highly energetic person who looks for excitement, is assertive, willing to take risks and generally positive emotionally?

1	2	3	4	5	6
Not at all like me	Very unlike me	A little unlike me	A little like me	A lot like me	Exactly like me

b) Are you self-conscious and do you often feel anxious, depressed or distressed?

1	2	3	4	5	6
Not at all like me	Very unlike me	A little unlike	A little like me	A lot like me	Exactly like me

c) Are you flexible, open to new ideas, like variety and enjoy cultural activities?

1	2	3	4	5	6
Not at all like me	Very unlike me	A little unlike me	A little like me	A lot like me	Exactly like me

d) Are you straight forward, trusting and do you enjoy helping others?

1	2	3	4	5	6
Not at all like me	Very unlike me	A little unlike me	A little like me	A lot like me	Exactly like me

e) Are you organized, self-disciplined, orderly in the way you go about doing things and usually strive to achieve things?

1	2	3	4	5	6
Not at all like me	Very unlike me	A little unlike me	A little like me	A lot like me	Exactly like me

THANK YOU FOR TAKING THE TIME TO ANSWER THESE QUESTIONS

UNIVERSITY OF WATERLOO

OFFICE OF HUMAN RESEARCH AND ANIMAL CARE

Notification of Full Ethics Clearance of Application to Conduct Research with Human Participants

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Faculty Investigator(s): **Department:**

Faculty Supervisor(s): R. Mannell, M. Stones **Department:** Recreation and Leisure St.

Student Investigator(s): M. Kloseck **Department:** Recreation and Leisure St.

OHR File #: 8561

Project Title: Building a Self-Sustaining Community System of Health Support for the Elderly: Determinants of Individual Participation in Voluntary Community Action

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Recently you received a copy of an Ethics Clearance Certificate which indicated that your application had received provisional ethics clearance through this office and outlined the revisions recommended in order to obtain full ethics clearance status. The required revisions/revised materials have been received and are considered acceptable. Thus, the project now has received full ethics clearance.

Please be aware that this project must be conducted in accordance with the description in the OHR application and revised materials for which ethics clearance has been granted. All subsequent modifications to the protocol receive prior ethics clearance through the Office of Human Research and Animal Care.

Susan E. Sykes, Ph.D., C.Psych.
Director
Office of Research Ethics

Feb 23/98
Date

Additional Comments:

CHERRYHILL/WESTOUT
COMMUNITY PROJECT

seniors,
service providers
and local businesses
working together to
build a partnership
for the future

120 CHERRYHILL DRIVE, UNIT 614
LONDON, ONTARIO N6H 4N9
TEL: (519) 670-1456
FAX: (519) 438-7776

You have been asked to participate in a study that will look at volunteer involvement in Cherryhill Village. This study is supported by the ESAM corporation. In addition to being a follow-up to the Community Survey that was distributed in your community approximately 2 years ago, the current study is being conducted as my Ph.D. research project through the Departments of Health Studies and Recreation/Leisure Studies at the University of Waterloo under the supervision of Dr. Roger Mannell. We hope that the information gathered through this study will help create better volunteer opportunities for residents living in Cherryhill Village and will help residents become more involved in decision-making and planning around their own health needs.

If you agree to participate, an appointment will be made to visit you in your home, at your convenience, for an interview. During the interview you will be asked: (1) general questions, for example, how long you have lived in Cherryhill Village, your current living arrangements and other similar questions; (2) your feelings about the Cherryhill Village apartment complex within which you live; (3) your opinions about the Cherryhill Community Project and other volunteer work you may be involved in; and (4) how satisfied you are with your life in general. You will also be asked some questions about your health and who you can count on when you need help. The interview will take approximately 1 hour of your time with breaks available if you wish.

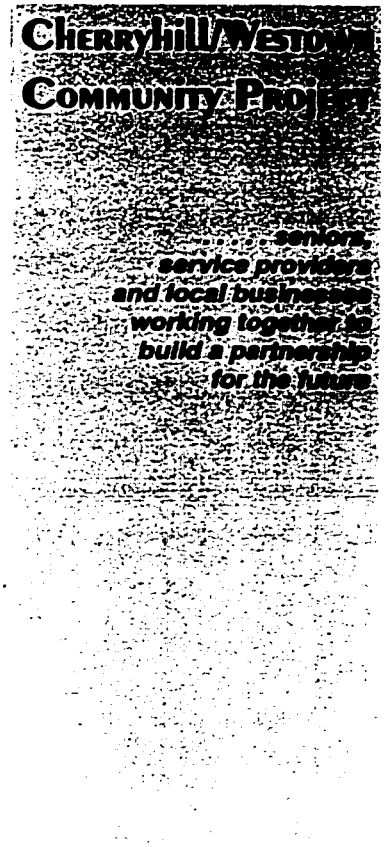
Participation in this study is voluntary. Information gathered in this study will be kept completely confidential. You will not be identified by name in my thesis or in any report or publication resulting from this study. You may refuse to participate, refuse to answer any questions, or withdraw from the study at any time. This will not in any way affect present or future services that you are receiving in the Cherryhill community.

This project has been reviewed by, and received ethics clearance through, the Office of Human Research and Animal Care at the University of Waterloo. If you have any questions or concerns resulting from your participation in this study, please contact this office at (519) 888-4567 ext. 6005. Also, if you have any questions about the study or would like additional information before deciding to participate in this study, please feel free to contact me at the telephone number provided below.

Thank your for your assistance with this project.

Yours sincerely,

Marita Kloseck, M.Sc., CTRS
9 Mount Pleasant Avenue
London, Ontario N6H 1C8
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CHERRYHILL COMMUNITY PROJECT

Consent to Participate

I agree to participate in the study to examine volunteer involvement in Cherryhill Village being conducted by Marita Kloseck of the Departments of Health Studies and Recreation/Leisure Studies under the supervision of Dr. Roger Mannell. I have made this decision based on the information I have received in the Letter of Explanation and have had the opportunity to receive any additional details I wanted about the study. As a participant in this study, I realize that I will be asked to take part in a 1-hour interview and that I may decline answering any of the questions, if I so choose. All information which I provide will be held in confidence and I will not be identified in the thesis, report or publication. I understand that I may withdraw this consent at any time by asking that the interview be stopped.

Participant's Name: _____

Participant's Signature: _____

Name of Witness: _____

Signature of Witness: _____

Date: _____