

Population Aging: Towards a Sustainable Future

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**Abstract**

A critical concern for society at the present time is the detrimental effects of human activity on the ecosystems. However, while there is raised awareness about issues such as global warming and the thinning ozone layer, humans still plan and develop the urban landscape from the perspective of the Cartesian worldview. This is also apparent in planning for the aging population. Although there is a large body of literature on population aging and sustainable urban development as well as a significant amount of material on aging and urban planning, the three issues of sustainability, urban planning and population aging are seldom addressed simultaneously.

This thesis addresses the question of how sustainability planning principles can be integrated with planning for population aging. To this end, I investigate the underlying paradigms of both planning and the sociology of aging to gain an understanding of the values that underscore the policy directions in both these fields. I also review the literature on population aging, as well as housing and health service planning to highlight some needs, preferences and beliefs of the older population. Finally, I survey the literature on sustainable urban planning to elucidate some points of intersection between the needs and preferences of an aging population and the dominant principles underwriting a more sustainable lifestyle.

The most significant themes arising from this investigation are the need for social and physical restructuring through changing paradigms. It is clear that older people are treated as a special group and have been segregated either covertly or overtly from mainstream society. Therefore, a change in values is required normalizing the older population within the societal structure. At the same time, traditional urban planning supports increasing consumption of material and energy resources leading to greater environmental degradation. Physical urban restructuring that reduces fossil fuel consumption and waste production will move society towards sustainability. Social ecology and ecological planning principles underwrite such social and ecological restructuring.

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## **Chapter 1 Introduction to Research**

### **1.1 Overview**

Human enterprise is on a collision course with planet earth. Nearly everyday the media reports examples of ecosystem breakdown bringing into question our failing stewardship of the earth.<sup>1</sup> At the same time, global population is rapidly increasing giving rise to terrible hardships for many people throughout the world, often culminating in unforeseen natural disasters attributable to human activity.<sup>2</sup> Not only is human population growing exponentially but it is also becoming increasingly urbanized causing grave concerns about the built environment and its implications for ecosystem and human health. Moreover, population aging, unprecedented in the North American context, is becoming a greater focus of concern.

The next cohort to join the ranks of the aged are the baby boomers, a demographic anomaly since their conception. In their lifetime, this diverse cohort has witnessed global exponential population growth, a significant rise in life expectancy, and a phenomenal increase in material consumption (Brown et al., 2000; Moore et al., 1997). Moreover, the appropriation of natural resources has resulted in unprecedented environmental degradation and social alienation (Goldsmith, 1992; WCED, 1987). This scenario portends a gloomy picture for an aging population as social and environmental costs overwhelm decision-makers in an era of economic globalization, social alienation and resource depletion.

### **1.2 Purpose**

This thesis investigates the implications of population aging under the shadow of environmental degradation and ecosystem collapse in a society that appropriates unprecedented amounts of material and energy resources. I examine the philosophical biases that underpin planning and the sociology of aging in order to determine a common

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<sup>1</sup> Stephen Hume, "Sustainability, Managing Planet Earth," Vancouver Sun, March 29 (2000), B4; n.a. "Earth Day 2000: The Earth is in Critical Condition," Vancouver Sun, April 19 (2000), B6; Stephen Hume, "A third grey whale washes up in Strait," Vancouver Sun, April 19 (2000), B1.

<sup>2</sup> Savita Kirloskar/ Reuters. "Indian lake dry for first time in 300 years," Vancouver Sun, May 5 (2000), A6. This consists only of a photograph with a caption and four line note indicating that Rajsamand Lake in the drought ridden state of Rajasthan has run dry and thousands of villages are facing an acute water shortage in a drought stated to be the worst in 100 years.

theoretical ground for planning for population aging. The purpose of my research is to contribute to the understanding of sustainability planning for an aging population.

### **1.3. Research Objectives**

This research synthesizes information from two disciplines, planning for the aging population and sociology of aging, in order to obtain a broader perspective of the pertinent issues related to planning for an aging population and sustainability.

The objectives are:

1. To review the philosophical and theoretical underpinnings of modern planning and the sociology of aging as well as planning for sustainability.
2. To examine the demographic information about the aging population determining implications and explanations relevant to planning for population aging.
3. To identify some of the relevant needs and preferences of older people to develop a profile of an aging population.
4. To examine the two significant planning concerns for older people, housing and health, in terms of predominating planning values.
5. To determine some common denominators between planning for an aging population and planning for sustainable communities.

### **1.4 Rationale**

Sustainability has now become a universal policy goal; however, there is still more rhetoric than there is evidence of changing economic behaviour. This study is motivated by two factors: the increasing evidence that humans are having a detrimental impact on the ecological systems; and the lack of information available on planning sustainably for population aging. Although there is a large body of knowledge about sustainable communities and urban development, there is little information integrating the older population within these communities. Since the older population is considered to be the fastest growing segment of the total population, planning for this age group should also be examined from an ecological perspective. As the significant increase in the absolute numbers of older people will bear on all communities, agencies and institutional structures, it is important to consider the community implications. Since planning is a multidisciplinary approach to human development within the ecological and economic systems, this study clearly falls within its mandate.

## 1.5 Definitions

Most disciplines have their own lexicon and planning and the study of aging are no exceptions. Even terms coined by researchers and recognized in their field of study are construed differently depending on the context of the study and the frame of reference of the people who are using them. For instance, many of the terms used to define housing options are country specific. The concept of aging in place has been transplanted from the United Kingdom where it is called 'staying put'. Since this thesis draws resources from at least two fields of study, terms are used that have a common meaning in both disciplines or are clarified if they have a meaning that is specific to one discipline.

A number of terms used frequently throughout this thesis require clarification. To begin, the age used to delimit the aging population can be anywhere from 55 to 65 years depending on the purpose or source. Demographers tend to use either 55 and over or 60 and over when forecasting and explaining retirement-related activities such as housing choice. On the other hand, institutions often use 65 years and over because this is the official age of retirement in Canada and the U.S. (Baxter and Ramlo, 1999; Longino, 1990). In the future this will change as the age of retirement rises to 67 years of age or more. In Canada, the concept of aging or old age is strongly influenced by social policy, particularly any policy related to the entitlement of pensions. Nevertheless, the concept of old age is also culture specific even in this country. For instance, in the Native community the concept of aging which is correlated with wisdom is not dependent on chronological age but on the wealth of life experience that a person can impart to other members in their community (Wister and Moore, 1998).

Although there is no universal age of admission to the elderly population, I use sixty-five and over in this study, unless otherwise stated. Thus, the terms: seniors, elders, elderly, older adults, older people, elderly citizens, etc., unless a specific age is noted, all refer to the population of people 65 year of age and over. Since this age group can span a range of 40 years or more, the group is often broken down into three categories. The people between 65 and 74 years are sometimes referred to as the young old, the 75 to 84 age group are considered the old population, and the 85 and over are labeled the old old.

As well, the word “community” is often used in the urban planning literature and is frequently referred to in this study. The term is used to denote a geographic community of people who have similar interests based on knowledge and familiarity with their environment. When referring to communities including older people this also includes the wisdom gained from living in a geographic area and having the knowledge base about a space that allows people to function and survive.

### **1.6 Method**

A qualitative methodological approach is used to analyze population aging from a perspective that includes sustainability planning. A hermeneutic approach of understanding and analyzing other people’s written analyses, primarily scholarly materials, is used to determine the predominant events and patterns related to people in their later years. However, only the content of secondary source written materials is examined. Neither the authors of the texts nor their disciplinary or philosophical biases are investigated, although these are often evident in, or can be assumed from, the tone of the text. I analyzed the written documents to find patterns in planning for an aging population and determine some of the values underlying these planning practices. My intent was to create awareness about different approaches to planning for population aging and determine an approach supportive of a more sustainable lifestyle.

There are limitations of this documentary research method. Qualitative research is not value free. The personal frame of reference of the researcher is an integral part of this approach. Since all research is interpretive, guided by a set of feelings about the world and how it should be understood, personal biases, values, beliefs, as well as age and gender have an impact on how the information is selected and interpreted (Hendricks, 1995; Denzin and Lincoln, 1994). Richardson (1994) suggests a qualitative method that is a postmodernist deconstruction of the triangulation method of interpretation. She proposes that instead of a triangle, a crystal is a better metaphor for investigation and interpretation. The many-sided crystal offers more dimensions representing the diverse approaches to seeing the world. Crystals are prisms “that reflect externalities and refract within themselves, creating different colors, patterns, and arrays casting off in different directions” (Richardson, 1994; 522). As such what researchers see depends on their

perspective of the issues. Since there are many perceptions of truth, this metaphor offers validation for the complexity of issues and a deeper albeit partial understanding of the topic. However, Richardson suggests that by using this approach in the end “we know more and doubt what we know.” (Richardson, 1994: 522). This is the approach taken to view the issue of population aging in our society; it is an attempt to look at the topic from different angles. The method used was a review of secondary sources about the philosophical and theoretical framework supporting both research and policy related to population aging in both the sociology of aging and planning for an aging population literature. Other literature reviews were on aging demographics, population aging, and housing and health care policies for the aging population. In order to integrate planning for an aging population and planning sustainable urban communities, both urban planning and planning for urban sustainability literature was also reviewed.

### **1.7 Organization**

This thesis is organized into six chapters. The first chapter introduces the study providing explanations for its relevance. Chapter two provides an overview of the two issues: global environmental degradation and population aging as they relate to urban areas and communities. The third chapter examines the philosophical impetus for the dominant theories underlying planning practices and aging studies and practices. Chapter four describes demographic data on population aging as well as some of the values of older people as determined by studies and analyses. Chapter five focuses on the trends in the dominant shelter and service policies. The final chapter, chapter six, is a synthesis of sustainability planning and an alternative approach to population aging coalescing the imperative for living more sustainably with the perceived needs and preferences of older people.

## **Chapter 2 Sustainability Imperative**

### **2.1 Introduction**

In order to grasp the relevance of planning sustainable communities for an aging population, this chapter provides a background on global environmental degradation and the present state of the environment. Consumption, especially fossil fuel consumption, and its impact on the urban environment as well as population growth are discussed in light of the environmental status. Population aging, a relatively recent phenomenon in North America, is introduced within this context.

### **2.2 Environmental Degradation**

There is a great deal of literature about the detrimental impact that human population is having on this earth (Brown et al., 2000; Meadows et al., 1992; Coffel, 1991; Carsen, 1962). The overwhelming evidence indicates that without abatement humans are degrading and overusing the earth's resource stock. As a result of this degradation many people are devoting their energies towards developing measurement tools, policies and practices to hopefully ameliorate these impacts by moving humanity towards a sustainable trajectory (Folke et al., 1997; Jacobs, 1991; Daly and Cobb, 1989). Many of the indicators unequivocally demonstrate that the traditional North American lifestyle is the most rapacious in the world (Cobb et al., 2000; Wackernagel et al., 1999; Wackernagel and Rees, 1996). Although this has resulted in economic growth, it has not necessarily improved quality of life or ecological integrity (Cobb et al., 2000).

Such environmental degradation and its effects have been documented over the centuries. In the last century, Rachel Carson (1962) was one of the first scientists to raise awareness of the effects of toxic chemicals on animals and humans alike. In her book, *Silent Spring*, Carson braved the establishment by broadcasting to the world the relationship between DDT and human health (Coffel, 1991; Carsen, 1962). However, environmental degradation and contamination is not the monopoly of the twentieth century. The Sumerian civilization in 3000 B.C. was the first literate bureaucratic society to use irrigation systems; they were also the first to experience water depletion and soil salination as a result of this agricultural technology (Ponting, 1992). Now in the twenty-

first century, one in every five hectares of irrigated land has similarly fallen prey to this same scourge (Postel, 2000, 1994; 1992).

In the *State of the World 2000* report, Brown et al. (2000) provide many disquieting facts and make dire predictions emphasizing that the state of the environment has not improved, but rather declined over the years. They avow that if population growth is not stabilized, and the polluting factors responsible for the drastic climate changes abated, there will be disastrous ecosystems breakdown. Further, they assert that the world's population growth in the next half century could affect economic progress more than any other factor implicating most social and environmental issues. Over the last fifty years the world population increased by 2.5 billion people to 6.1 billion and in the next fifty years it is predicted to increase to 8.9 billion (Brown et al., 2000). Although this tremendous population increase is expected in the developing nations, the per capita resource consumption in the developed world is many times the consumption per person in the developing world. Therefore, although the Western world has stabilized its population, it continues to appropriate the most resources while simultaneously expelling vast amounts of pollutants into the ecosystems.

With respect to the environment, recent salient discoveries have underscored the need for active resurgence in reducing environmental impact as more threats to species survival are detected regularly. Aquifer depletion, soil degradation and global warming are just a few of the problems implicating population and ecosystem health (See Appendix A for details). Carbon dioxide, the primary cause of global warming, is being released into the atmosphere at increasing rates. In the last thirty years global air emissions doubled. Before that it took 200 years for air emissions to double (Worldwatch Institute, 2000). Subsequent increases in global temperatures are rapidly melting the Earth's ice cover resulting in rising sea levels which in turn trigger flooding that endangers human settlements and alters plant and animal habitat (Brown et al, 2000). In the Pacific Northwest region about 3.5 times the global average of climate-altering pollutants is regularly pumped into the atmosphere while in the lower mainland two-thirds of these



emissions are attributed to the automobile (Northwest Environmental Watch, 2000; Ryan, 1995).

### **2.3 Consumption Patterns**

The Western life-style is appropriating an increasing portion of the world's resources through high consumption levels. In fact one-fifth of the world's population is now consuming over 80 percent of the global economic output (Rees, 1999). This consumption is increasingly appropriating the products of nature faster than they are produced and discharging wastes into the environment more rapidly than they can be absorbed by the environmental sinks (Wackernagel and Rees, 1996). Rees (1999) argues that what neo-classical economics considers economic production is actually consumption transforming a continuous input of energy and materials extracted from nature and ultimately returning it to nature in the form of waste. Since all of these transformations are irreversible and the source is finite, the increased rate of consumption of nonrenewable resources is indeed problematic (Rees, 1999). The human species in the name of progress is exponentially appropriating materials and resources to appease insatiable consumer appetites. Already there are many examples of ecosystem breakdown including collapsed fisheries, decreased forests stands, and fewer sources of potable water (Brown, et al., 2000; Meadows et al., 1992).

Urban centres have the greatest impact on the environment, not just the physical land space on which they are built, but also the hinterland from which they acquire their resources. Presently, more than one-half of the world's population resides in and around cities; by 2025, it is predicted that at least two-thirds of the world's population will be living in cities (Brink, 1997). Cities, through technological advancement and commercial exploitation massively subsidized by fossil fuels, have become major resource appropriating and environmental degrading centres. How to absorb such large agglomerations of humanity in a way that will ensure a healthy and secure material future that is both equitable and meets basic needs of food and shelter is the greatest challenge for humanity (Rees, 1999; 1989).

## **2.4 Urbanization**

Prior to urbanization, constantly relocating hunter and gatherer societies conserved resources by allowing natural habitats to recover before they became completely eroded. In this way indigenous societies existed in an overall dynamic equilibrium with the ecosystems that sustained them (Rees, 1999; Brody, 1988). Now that people live in 'place', their actions implicate not only where they live but also the greater environment from which they acquire their resources. Urbanites, however, do not equate the disasters in distant lands with their lifestyle activities as the connection between production and consumption has long been severed by industrialism and more recently economic globalization (Fowler, 1992). Consequently not only do people deny any connection with what is occurring in distant places, they also deny that these events are at all related to their addiction to consumption (Glendinning, 1995). Regardless of what urban dwellers may believe, their environs are filled with even higher levels of particles, dioxins and persistent organic pollutants from the wastes and emissions produced in their own backyards. (Rees, 1999).

### **2.4.1 Physical Environment**

The foundations of modern cities are rooted in the industrial era of the nineteenth and twentieth centuries (Fowler, 1992). Deconcentration, commonly referred to as urban sprawl, is a legacy of the mass exodus to suburbia beginning in the 1950s. During that time, inspired by the industrial machine and romanticized by mass media, people strove to acquire the good life through mass consumption. Massive infrastructure and connecting road systems linked the suburban utopias with the urban centres. This same growth ideology underpins the present urban configuration stylized by homogeneous mega structures distributed along multi-lane thoroughfares separated by wide boulevards. These connector road systems linking the suburban communities are estimated to take up at least one quarter of the land area required for development (Fowler, 1992). This pattern of development, the consequence of an era of abundant and inexpensive fossil fuels and automobile addiction, also requires a significant amount of ongoing maintenance. Between 15 and 25 percent of government budgets are dedicated to transportation related expenses alone (Durning, 1995).

Automobiles not only appropriate a large amount of physical land space, the emissions from these vehicles also have significant physical and social health repercussions. Motor vehicles alone consume three fourths of all petroleum in the Pacific Northwest, and release the single largest share of pollutants in the region (Durning, 1995). No relief appears on the horizon as the number of licensed vehicles keeps increasing to the extent that there are more vehicles than there are licensed drivers; there are enough vehicles for each man, woman and child living in the area (Durning, 1995). Noxious emissions from the automobiles are also devastating the natural environment. Croplands are eroded and water sources are often polluted in the areas in and around urban centres resulting in lowered food production and increased water contamination. Air pollution is responsible for reducing the crop value of the agricultural lands in the lower mainland by 26 million dollars per year (Northwest Environment Watch, 2000). Although Canadians rate air pollution as their second highest environmental priority and support better public transit and stronger emission regulations, the continued high levels of air pollution do not reflect these sentiments (Canada Mortgage and Housing, 1995a).

#### **2.4.2 Social Environment**

Simultaneously there are many social implications of environmentally inconsiderate development. The literature often explicitly associates the modern industrial society with social malaise and anomie and frequently alludes to it through examples of community disintegration (Breheny, 1992; Fowler, 1992). The industrial revolution is cited as the culprit for separating family members through the segregation of housing, work and leisure space. Land use bylaws separating industrial, commercial and residential land have further abetted separation and segregation (Fowler, 1992). Due to this structural separation and autocrism, people have suffered both temporal and spatial losses. This segregation has led to social dislocation and ultimately a decrease in closely knit social support networks, a significant indicator of health and well-being in older adults (Idler et al., 1999; Breheny, 1992).

Automobile traffic is a daily health threat as accidents causing bodily injuries and deaths occur regularly; the rates are often higher amongst the younger and older generations. Emissions composed of carbon dioxide and nitrogen dioxide have negative health

implications for these age groups as well. Nitrogen dioxide, in particular, is known to increase infections which can ultimately lead to bronchitis, pneumonia, and bronchoconstriction (Breheny, 1992). In addition, there are increased hospital admissions for people with asthma and other respiratory diseases which are attributable to high levels of fine particulates in the air, especially during the summer months. Consequently, many communities warn their inhabitants when fine particulate levels are dangerously high. This is especially relevant for people with respiratory diseases, and the more vulnerable citizens such as the young and the old (Fayerman, 2000; Labonte, 1991). Even more insidious are the effects of traffic on mental and physical health. Pedestrians, again particularly the younger and older populations, are often intimidated by the motorized public as they attempt to traverse busy streets and intersections. The wide streets and the long and busy intersections that separate the facilities and services further add to already unsafe conditions. Such road systems are especially unfriendly to the older and younger population, although they are equally unsafe for the rest of the community.

As society becomes more sensitized to the impact of the automobile, it becomes less aware of how the car has fractured community life. Whether people live in single-family residential neighbourhoods or in multi-family complexes, increased mobility patterns due to the automobile have alienated all people from their local community. As people get older, however, and their geographical space becomes smaller, a connection to the local community once again becomes important. Unfortunately, traditional urban planning designs do not lend themselves to community cohesiveness. Since the psychological implications of a cohesive community that promotes a sense of belonging and restores the social fabric is important for older people, population aging may become the catalyst that draws previously fractured communities together (Roszak, 1998).

## **2.5 Implications for Planning**

These growth and consumption patterns and their resulting impact on the air, soil and water, all life sustaining natural elements, are indications that we must change the way we interface with the earth and appropriate its resources. Alternate paths in both planning and living need to be taken in order to sustain human life, plant and animal species. Many ecological advocates are calling for an ecologically based economic system rather than

the traditional neo-classical economic growth model (Jacobs, 1991). At the community level, people are recognizing that alternative approaches are required to address urban planning so that it is integrated, more sensitive to ecology and community, more respectful of uncertainties, and more open to citizen involvement (Gibson, et al., 1997). Sustaining human settlements such as cities requires a concerted effort on the part of the people to sustain them physically and socially through active participation and behaviour change. Increased interaction and involvement in the planning process means that needs and desires of more people are incorporated and social and physical diversity is maintained (Sandercock, 1998; Milgrom, 1998). This is the direction that will bring people together towards a common purpose. This section has explained the imperative of living simpler and using fewer material resources. While the environmental problem is global, the aging issue introduced in the next section is a concern primarily in the Western world.

## **2.6 Population Aging: Crisis or Turning Point**

Population aging has become a topical focus for discussion over the last few decades both in the popular press and in professional literature. In particular, the impending market behaviour of the baby-boom population is a popular focus of discussion.<sup>3</sup> Foot and Stoffman (1996) assert that three quarters of all trends can be explained by demographics. They predict that the next generation of retirees will be moving away from urban centres to smaller rural communities. Therefore they suggest that planners in these smaller centres must be vigilant in planning desirable communities to steer development away from urban sprawl. Moreover, they suggest that the aging population, longing for peace and quiet in the second half of their life, will become more segregated from mainstream society. On the contrary, detractors of this view argue that demographic trends, although useful as analytical planning tools, should not be construed as deterministic measurements (Baxter and VanSiri, 1998). The numbers only provide the quantitative parameters; they do not completely explain the diversity and pluralism, nor the contextual environments wherein people live and work.

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<sup>3</sup> Vancouver Sun. April 26 2000, A10; March 10 2000, A3; April 7 2000, G1; Montreal Gazette, September 10 1999.

The two most frequently cited concerns related to population aging are the impending health and social service costs and the anticipated high dependency ratio when the baby-boomers retire and smaller cohorts are paying the bills. Derogatory terms such as “apocalyptic demography”, “voodoo demography”, and “alarmist demography”, have already been used to characterize this aging dilemma (Gee and Gutman, 2000). Nevertheless, the doom and gloom predicted by aging demographics are not necessarily substantiated by research. On the contrary, population aging can be viewed as a tremendous opportunity for a paradigm shift to a new set of beliefs and values on which to base standards and planning strategies (Gee and Gutman, 2000; Marshall, 1987). Already there is evidence to support the thesis that population aging will not be a burden on society, rather an opportunity for changing perceptions. (Roszak, 1998; Denton et al., 1987). How population aging will affect communities will be dependent on many variables, in particular how communities are planned and developed and who is involved in the process, the older population living in the community or paid experts who are removed from the community.

### **2.6.1 Population Aging and Demographics**

Demography is the study of the proportions and composition of a population. It is not a precision-oriented tool; it only shows trends and possible explanations for understanding human society (Baxter and Ramlo, 1999). Demographers are attempting to predict compositions of the older population and the changing patterns of their population size, as well as the impact of these changes on household and societal structures. Many of these studies are used as a basis for determining the distribution and allocation of social resources, housing and health care services (Myers, 1990). In the Western world, the preoccupation with aging has been a twentieth century phenomenon. It began during the depression when fertility rates declined substantially and people began speculating about its implications (Myers, 1990).

In order to understand the mechanics of an aging population, it is important to look at the broader demographic changes taking place within society as a whole. Population aging is not only a consequence of increased longevity but it is more closely related to historical and prospective fertility rates (Baxter and Ramlo, 1999; Denton et al., 1998). In 1994,

Canada's fertility rate was 1.66 births per woman. Future predictions of population aging are based on fertility rate assumptions, either a low fertility rate of 1.30 or a high fertility rate of 2.50 births per woman (Denton et al., 1998). Other determinants of population aging are mortality rates, in-migration and out-migration, as well as immigration and emigration rates. Canada's population aging trend and increased median age relates back to the high fertility rates in the mid-fifties as well as to increased longevity. Hence the median age in Canada has risen from 28 years, just after the second world war, to 37 years in 2000; and it is projected to reach 49 years by 2036 (City of Vancouver, 1994: 6). In the United States, projections indicate that by 2050 the median age will be 43 years (Boyd, et al., 1994: 7). Since immigration rates in Canada are fairly low, they do not have a significant impact on the median age of the population. Thus projections are usually based on the assumption that future immigration rates will not confound the numbers substantially (Gee and McDaniel, 1994).

Over the next few decades the rate of population aging in the rest of the world will not be rising as rapidly as in North America. In 1985, the percentage of people 65 years and older in the world was 6.0 percent; in the more developed nations it was 11.5 percent and in developing countries only 4.2 percent. By comparison in 2025, it is expected that the older population in the world will be 9.7 percent of the total population, in the developed countries 18.9 percent, and in developing countries 8.0 percent of the population (Myers, 1990: 29). United Nations projections suggest that by 2050 there will be 1.2 billion older people in the world, an increase of 290 million people since 1985 (Myers, 1990: 27). Although the rates of population aging vary throughout the world, the trend will continue as long as fertility rates keep declining and life expectancy keeps rising. By international standards, however, Canada's 65 and older population is fairly young. In 1990, when this group made up 11.5 percent of Canada's total population, Sweden's older population was already at 17.8 percent (Brink, 1994:102). These figures indicate that the aging trend will continue for a long time barring any unforeseen events to otherwise alter this trajectory. Canada is in a unique position to learn from the experiences of European countries to gain insight into how population aging affects societal standards and lifestyles. Denmark

and Sweden are two countries proactive in planning for and integrating their elderly population within mainstream communities (Lindstrom, 1997)

Canada's older population is growing fairly rapidly. It took forty years (1951-1991) for the 65 and over age group to grow from 7.8 percent of the total population to 11.4 percent. In 1998, there were over 3.7 million Canadians 65 and over, or 12.4 percent of the total population (Figure 2.1). By 2016, when the first wave of baby boomers enters retirement, it is projected there will be about 5.9 million seniors in this country or approximately 15.9 percent of the total population (Statistics Canada, 1999: 21; Baxter and Ramlo, 1999)<sup>4</sup>. By 2030, it is predicted that Canada's percentage of older people will increase to 23 percent, nearly a 100 percent increase over 1991 statistics (Statistics Canada, 1999: 21; Baxter and Ramlo, 1999; Moore et al., 1997).

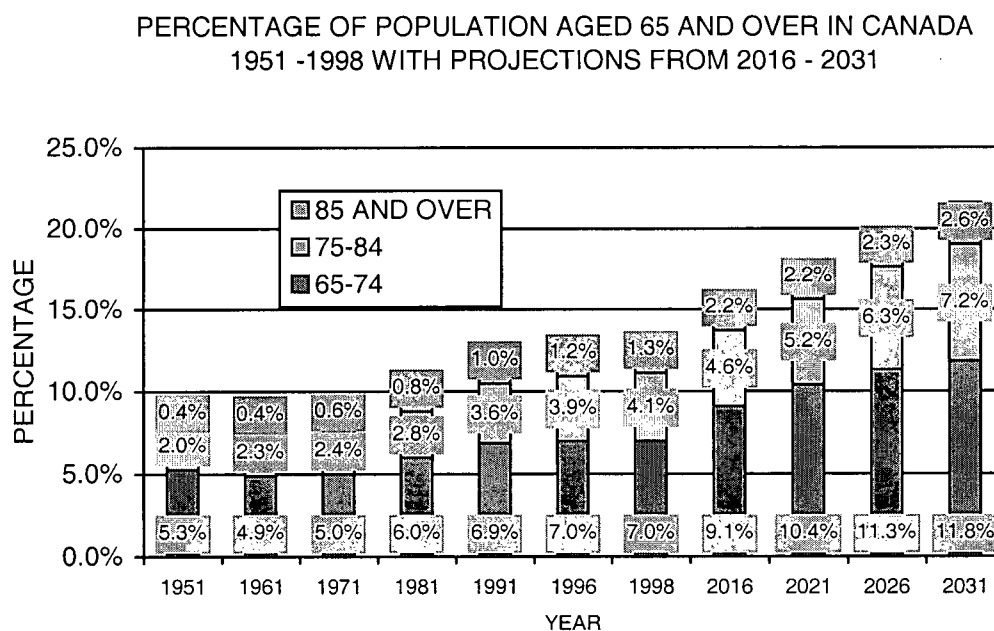


Figure 2.1 (Baxter and Ramlo, 1999:2)

### 2.6.2 Population Aging Composition

Not only is the aging cohort getting much larger, but it is also becoming more diverse. One important aspect of this aging phenomenon is that the numbers are making the group too large and heterogeneous to be described as one block. Therefore for demographic

<sup>4</sup> Baxter and Ramlo's numbers and Statistics Canada's numbers, although slightly different, basically show the same population aging trend.



purposes, the 65 and over cohort is often divided into three age groups: the 65 to 74 age group known as the young old, the 75 to 84 considered the old, and the 85 and over often referred to as the old old. These are, however, very loose demarcations that are not universally honored. Each of these three groups is characterized slightly differently as the mortality rate for men rises with age and the gender bias towards women increases. Even in the 65 to 74 age group there are significantly more women than men; in 1991 the ratio was 122 women to 100 men (Priest, 1994: 17). The 1998 figures show that in Canada the 65 to 74 age group comprises 7.0 percent (2.1 million) of the total population, a 40 percent increase over 1981 (Statistics Canada, 1999: 22) (Figure 2.1). In this age group women represented 53.6 percent of the population (Statistics Canada, 1999: 22-24). At the same time, Canadians in the 75 to 84 age group made up 4.1 percent (1.2 million people) of the total population with the number of women in this age group comprising 60.4 percent of the population (Statistics Canada, 1999: 22).

The most significant demographic aging trend over the ensuing years will be the tremendous increase in the oldest of the old age group. This age group is not only growing absolutely but it is also growing proportionately. In 1998, there were 380,000 people 85 and over, 1.3 percent, more than double the number in 1981 and twenty times more than in 1921 (Figure 2.1). Consequently about one in ten Canadian seniors today is 85 and over. The percentage of women in this age group rose from 53.6 percent in the previous age group to 69.8 percent. It is projected that by 2031, 2.6 percent of the population will be 85 years and over (Baxter and Ramlo, 1999:2) and by 2041 close to 1.6 million Canadians or 4.0 percent of the total population will be in this age category (Statistics Canada, 1999: 22). Definitely this trend will have significant implications for Canadian society, especially the shelter and service requirements of older people.

## **2.7 Concluding Comments**

As these figures indicate there is no doubt that the population as a whole has aged significantly over the last fifty years and the projections are a guide of what the future numbers will be in each age group. The question is, however, how will society change as the population ages and what role will older adults play in the new social structure. While there is presently a policy direction to maintain people in their homes at the same time

retirement communities segregating seniors from mainstream communities are being planned and developed. In the future, however, as the global environmental urgencies become more prominent, communities and housing will need to support reduced consumption of fossil fuels and all other non-renewable resources. Thus a conservation philosophy calling for ecologically sensitive and socially just development will become an imperative for everyone. The next chapter provides an explanation of the philosophical underpinnings that have propelled societal planning, including planning for the older population, over the last century.

## **Chapter 3 Theoretical Lenses**

### **3.1 Introduction**

The philosophical underpinnings of planning theories are important to understanding the dominant values underlying planning practices for both society and the older population within society. These theoretical perspectives provide an explanation for the changing value systems that have underscored planning practices in the last century and how the modernist planning approach has led to the present urban environment. In addition, they provide insight to the social values that underpin research about the aging population.

The purpose of this section is to identify theories supporting planning that is “democratic, inclusive, culturally diverse, flexible, participatory and sometimes insurgent” (Sandercock, 1998: 6). This section explains the evolution of planning theories as well as some salient sociology of aging theories highlighting the points of intersection which provide insight to planning for an aging population that is environmentally and socially just. Examined are some of the theories that Sandercock (1998) considers marginal such as the critical and feminist perspectives that have been excluded from the modernist discourse though they provide a wider lens through which to view the issue of population aging in the Western world. These are the theories that support planning practices that embody new ideals of social justice in their process as well as their product. Such a paradigm requires a different style of planning, one that embraces community differences and is conversant with cultural diversity. In order to comprehend this democratic inclusive model of planning, the disparities and political differences that underscored the rational planning paradigm must be recognized and understood (Sandercock, 1998).

### **3.2 Epistemology of Modernist Planning**

The epistemology of planning provides an understanding of the basis for the diverse planning theories that have evolved over the last century. The question of how we know what we know, and how we arrive at truth and certainty on which to base action has plagued humanity from time immemorial. Even Aristotle and Plato did not agree whether practical wisdom based on emotion, intuition and imagination played a role in personal and public decision making. While Aristotle allowed that these psychological elements played a valid role in deliberations, Plato asserted that irrational attributes from the soul

could not be applied to rational practicality. He insisted on the separation of body and mind in order to assure that irrational emotions did not obscure facts that could only be ascertained through impartial deliberations. The immaterial realm would only confound such deliberations and illuminate theoretical contradictions that were not acceptable to rational thinking (Sandercock, 1998). Descartes, a philosopher in the seventeenth century, agreed that the subjective domain must be separated from the outside world, that which can be objectified. This is the Cartesian value-free quantifiable nature that can be measured and analyzed (Skolimowski, 1981). Throughout this 'Age of Reason', also known as the enlightenment, people lost touch with their inner self and their connection to the earth. This scientific method that distinguished between reason and emotions, and its defining characteristics of empirical positivism, predominated and still predominates throughout the world, especially the Western world. Modernist planning ascribes to this worldview of technical rationality, order, coherence and regulations. The experts of this scientific objectivity are given the responsibility of overseeing the social and environmental world for the 'public interest' directing planning and implementation processes through this instrumental lens.

Norgaard (1994) offers a succinct account of the five interlocking metaphysical and epistemological premises underscoring the modernist point of view that has led to the destruction of both cultural and biological systems. These five philosophical suppositions underscore the way reality is viewed, how people fit into reality, how we know and the nature of that knowledge. Most of the time these underlying values are implicit in the way reality is perceived and the arguments that are raised for or against particular decisions. The five philosophical suppositions of the dominant philosophy and their alternate counterparts are described in Table 3.1.

**Table 3.1 Dominant and Alternate Philosophical Premises**

<b>Dominant Premises - Modernism</b>	<b>Alternate Premises - Postmodernism</b>
<i>Atomism:</i> Systems consist of unchanging parts and are simply the sum of the parts.	<i>Holism:</i> Parts cannot be understood apart from their wholes and wholes are different from the sum of their parts.
<i>Mechanism:</i> Relationships between parts are fixed, systems move smoothly from one equilibrium to another, and changes are reversible.	Systems can be mechanical or deterministic but they are not predictable or smooth rather chaotic or discontinuous and can also be evolutionary.
<i>Universalism:</i> Diverse complex phenomena are the consequence of underlying universal principles which are few in number and unchanging over time and space.	<i>Contextualism:</i> Phenomena are contingent upon a large number of factors contingent upon time and place. Thus similar phenomena can occur at different times and places contingent upon a wide array of factors.
<i>Objectivism:</i> The observer can distance themselves from the object being studied.	<i>Subjectivism:</i> Systems cannot be understood apart from the observer and their activities, values, and the way they know and have acted upon systems previously.
<i>Monism:</i> Our separate individual ways of understanding are merging into a coherent whole.	<i>Pluralism:</i> Complex systems can only be known through alternate patterns of thinking which are necessarily simplifications of reality. Different patterns are inherently incongruent.

(Norgaard, 1994:62)

### **3.2.1 Critical Theory**

Critiques of the scientific worldview, serving as the foundation of modernist planning, come from a variety of sources. The postmodernist approach critiques a number of the modernist assumptions. In particular, it questions whether rational reasoning can provide an objective, reliable and universal foundation for knowledge and is the paradigm of all true knowledge. Much of this critical theory is based on the work of theorist Jurgen Habermas who recognized that communication was a valuable tool for bringing about social change. This is a reflexive theory looking inward to the failings of the value free scientific method. It views the system as flawed, controlled by the market and interest-free politics. Critical theory also questions the precept that the observer is neutral and objective having no influence on the reasoning process. Theorists argue that the impartial observer cannot be an objective observer because as an active member of the process they add one more dimension to the observed world (Forester, 1980).

Habermas (1971) not only values the communicative process in planning but also notes that it is important to question the purpose of knowledge: whether it is for technical

reasons, interest in control, or for understanding which comes prior to control.

Understanding in this case would be two-fold, first the understanding of the researcher and then the understanding of the object being researched. This then is a double hermeneutic because it is an interpretation of the interpretation. Habermas posits that the third interest in studying is the interest in emancipation, meaning that the object being studied is not considered separate from the issue. From this perspective the study of aging cannot be separated from the people and their experiences which are integral to the process of gaining knowledge (Lynott and Lynott, 1996).

### ***Marxist Perspective***

Although all critical theorists focus on the contextual embeddedness of domination and hierarchical systems, they do not all agree on the basis for their critique of the modernist philosophy. The Marxist inspired critical perspective, for instance, focuses on the effects of human domination over the environment. It emphasizes modernism's dehumanizing tendencies and the domination of humans on the environment as well as the domination of science and technology on non-human nature (Merchant, 1994). Recent scholars of the Frankfurt tradition assert that social theories are simply duplicating the practices of the capitalist system as they are replications of the cultural and scientific material world. These theorists posit that human suffering created by the unequal material world is not natural or inevitable. The goal is to ameliorate suffering, not just through change but also through a deeper analysis of the underlying causes of this suffering. The Marxist vision is for humanity to live in a society that fulfills human needs as well as allows people to realize their innate developmental potential (Merchant, 1994).

### ***Political Economy Perspective***

Another perspective, the political economic lens, looks at the implications of the structural features of the economic system. One example reflecting the premise of this theory asserts that the high standard of living enjoyed in the Northern hemisphere is gained at the expense of people in the third world who continue to move into deeper poverty and even lower marginal survival levels. The unequal distribution of resources and power relations contribute to these increasing disparities. Connected with this imperialistic colonial attitude is the resulting population dilemma, the exponentially increasing population in the developing world and population aging in the Western

world. As long as the developing countries are denied an adequate standard of living and education, their fertility and poverty rates continue to increase. The consequence of this inequality and imperialistic attitude also continues the cycle of dependency which is necessary just to maintain the persistently low standards of living (Merchant, 1994).

### ***Social Ecology***

Social ecology, the cornerstone of ecological planning, reflects not only on the domination of humans over nature, but also humans over humans. Bookchin (1994) relates this domination back to the inception of early city-states dependent on entrenched hierarchical systems of dominance, the dominance of the older over younger and men over women culminating in the domination of humans over nature. Bookchin (1994) asserts that social ecology recognizes and understands the interconnected complexities of the natural environment and offers an alternative pattern for sustainable living. The natural systems must be replicated in the social systems such that a non-hierarchical holistic system of exchange and dependency achieves a new balance between humanity and nature. Bookchin (1994) predicts that humanity's ability to balance the human and natural systems will determine whether or not Homo sapiens survive on this planet.

Social ecology, the theoretical underpinning for ecological planning, has its roots in the writings of eighteenth century scholars, socialists, anarchists, geographers, ecologists and sociologists who were disenchanted with the mechanistic worldview. These people set the foundation for the present day environmentally conscious social activists who are working towards change. This planning approach is not so much a proscribed planning methodology as an application of an ever changing fluid process, a social change process by which knowledge is converted into action to attain an ecologically sustainable and socially just society. Though there are many permutations of this planning style, they are all based on common beliefs and values that are relayed to individualized social and environmental contexts. Some of the underlying principles of this holistic alternative approach to status quo planning are:

- a systems approach,
- a focus on trends and patterns not categories,
- co-operation as opposed to competition,

- process orientation and not prescriptions,
- focus on quality not quantity,
- focus on connections not separations,
- a biocentric, not an anthropocentric approach, and a
- decentralized approach not a centralized approach to planning (Aberley, 1994: 6).

### **3.2.2 Feminist theory**

The underlying premise of feminist theory includes a critique of domination over nature, but more specifically the domination of men over women. Although there are many feminist theories, transformative feminism addresses the dialectic of culture and nature that is the basis of all domination. Much of the international development which Vandana Shiva calls maldevelopment is rooted in domination of women and nature simultaneously (Merchant, 1994). During the 1970s, feminists' interest moved towards epistemology because of the absence of women's voices in the dominant ideology. The predominant voice in the social sciences in the positivist era has been the male voice that discredits all ways of knowing that do not fit within the positivist epistemology. Feminist theory argues for a distinctly feminist epistemology that honours feminine ways of knowing including knowledge based on experience, intuition and imagination. At the same time, it also calls for a feminist epistemology that accepts there is 'connected knowing', 'passionate knowing', and 'maternal knowing' (Sandercock, 1998). As well, more stress is placed on the relevance of communication and emotions in the pursuit of knowledge and understanding.

### **3.2.3 Planning Theory**

Planning theory has evolved over the last decades even though not all planning practice within the context of the bureaucratic political system subscribes to the most recent iteration. Sandercock (1998) asks if planning theory is even necessary and if so what theories are required: theories about knowledge, power, structural inequalities or social transformations. Within the quantifiable scientific worldview, Habermas (1971) argues that the classic sense of theories cannot be applied to modernist views that have disassociated facts from values. In the classical meaning of the word, theories only have an impact on life when they are discovered in the cosmic order and then related to human



action. Thus from this perspective the theories espoused by the objective, modernistic approach are not considered valid theories.

Nevertheless, critical and feminist perspectives are slowly becoming integrated within the evolutionary postmodern planning paradigm. Although traditional planning models such as Friedmann's (1987) typologies are not biocentric, they do recognize that experiential knowledge from the community is integral part of the planning process. Forester (1980), a critical theorist of the rational approach to planning, is especially interested in the communicative aspect of planning basing his critique on Habermas' communicative theory. He acknowledges the value of open and clear communication that is devoid of misleading rhetoric and falsehoods. He posits that planning is an interactive communicative activity only augmented by technical analysis thus making it an interpretative mode of inquiry to elicit unique contextual community elements.

More recent planning theorists have expanded the planning base to include social and environmental justice within the theoretical framework. More specifically, this alternative approach supports cultural differences, acknowledges the human spirit and focuses on the efficacy of the interactive human community (Sandercock 1998; Dyck, 1998). Dyck asserts that the coevolution of community and ecology are necessary to avoid the pitfalls of modernist social and environmental determinism. In terms of planning practice Dyck offers a number of recommendations including the need for planners to be more conversant with numerous languages of interdisciplinary professional discourse. He also argues for other ways of knowing that embrace methodologies of both analysis and synthesis. In quantitative studies he suggests that more emphasis be placed on nonlinear methods such as chaos theory, and qualitative analysis should include a wider range of materials reflecting the numerous and diverse ways of knowing. Moreover, he asserts that interactive and complementary synthesis and analysis is fruitful in the quest for knowledge even if it produces contradictory results (Dyck, 1998). In the last few decades there has been a move towards a more inclusive postmodernist mode of planning. The dawning recognition that interactions between the natural and social systems can no longer be predicted and controlled has opened the door for alternative approaches. The

postmodern planning approach considers the complexity, uncertainty and shifting boundaries of systems recognizing their nonlinear interactions. Moreover, this perspective also suggests a devolution of private sector authority to the community level encouraging public discourse (Dyck, 1998). Such a planning model supports assumptions underlying this thesis.

### **3.3 Sociology of Aging Theory**

In order to understand how we know what we know about older people an examination of the theoretical grounding underlying social values illuminates not only why we know what we know but through what lens we gain this knowledge (Ray, 1996). Marshall (1996) contends that there is no integrated theory of aging as aging is an essential part of life. From a social science of aging perspective, however, it is assumed that there is some pattern and order to life that can be uncovered through the rigorous scientific methodology of defining the problem, developing a hypothesis, determining variables and completing quantitative analyses. The social study of aging looks at the interface between the individual and social life; however, individual aging and changes in the composition of society are also investigated. These social investigations deal with both the actions of individuals and aging populations on social life, and the impact of social life on the individuals and population aging (Marshall, 1996). It is this interface between population aging and social life that is the major focus of interest in this study.

Sociology of aging theories, not unlike planning theories, have also undergone a number of transformations over the last few decades. Lynott and Lynott (1996) offer a loose delineation of the transitions that have taken place in the course of theoretical development in the sociology of aging. This evolution does not insinuate a transformation from one mode of theorizing to another, but rather that there has been a divergence of theoretical thought in the sociology of aging. The first of three major transformations occurred in the 1960s when the disengagement theory offered an alternate explanation for the process of aging and related behaviour. Although this theory, asserting that as people age they slowly remove themselves from society, was not the first theoretical development in the field of aging, it did provide the impetus for a greater theoretical consciousness about aging. It also represented the first public statement legitimizing the

study of aging theory as a scientific practice in its own right. The second wave of theory came during the early 1980s and is described as metatheoretical. It questioned the nature of the reality being theorized. Questions such as what is the nature of aging and how is it described, and whose interests are served became the focus of interest. Social phenomenological and Marxist approaches were employed to investigate these issues. The most recent theoretical evolution turned to critical theory and feminist perspectives and questioned what age is and whose interests are served by studying aging (Lynott and Lynott, 1996).

### **3.3.1 Critical Approach**

A critical approach to the study of aging is used to investigate the facts about aging that have been ascertained primarily using scientific methods. Whereas the modernist approach reifies the structures of social control reinforcing the status quo and legitimizing the professionals, critical analysis points to the unnatural discordance between facts and values and once again resurrects the human elements that are ignored in the rational approach to the study of aging (Moody, 1992). Critical theorists suggest that in contrast to the modernist approach the critical approach interprets the experience of aging as a positive experience within the spectrum of the life course (Moody, 1992; Lynott and Lynott, 1996). A psychology of aging theory subscribing to the critical approach offers a unique perspective on older people. It suggests that because seniors have already lived through a major portion of the life cycle they have a potential towards gerotranscendence. This means that their life focus has shifted from a rational and materialistic vision to one that is more cosmic and transcendent. And it is this change of perspective and life reference that can lead to increased life satisfaction and peacefulness. This correlates with the view that although key personality traits do not change over a lifetime, personal attributes such as goals, values, beliefs, and coping styles do alter over time. This gerotranscendence model implies that with age comes a more flexible outlook on life and possibly even a redefinition of reality (Schroots, 1996).

Another critique is the phenomenological approach, the investigation of how professionals and lay people alike make use of age-related explanations and justifications in planning for the aging population. This critique suggests that facts themselves become

reified outside the realm of the aged population and are recognizable in the way they are invoked and applied in the public realm (Lynott and Lynott, 1996). Such analysis focuses on the process by which age related facts are produced and replicated in order to produce a social construction of reality. One instance where this analysis is used is in the critique of how data is gathered to determine life satisfaction, a major focus of gerontological study. The critical lens of the scientific methodological approach to studying life satisfaction questions whether the survey research approach vowing to be devoid of value is in fact a nonsocial activity. Even though the researcher may consider the study to be value neutral, the critical theorists argue that the respondents do not consider the interaction value free. Only because the study parameters have already been set in advance by the researcher, who is seeking answers to specific questions, are the responses limited and narrowly focussed. The responses are further cleansed in the analytical process ensuring that any qualifications and the social context is removed from the results thus making them appear value free. This mode of investigation does not allow for practical interpretations or the inclusion of the older person's contextual background. In contrast, the critical analyst employs other ways of knowing such as old age ethnographies which are investigations encouraging the inclusion of personal values and life experiences offering a multifaceted view of the aging process (Lynott and Lynott, 1996). Such analyses point out that a person's satisfaction with life is the result of the ongoing social construction of aging which influences personal philosophies and interpretations of later life experiences. In essence this refers to the predominant worldview which influences their beliefs and values. Thus regardless of how satisfied a person is with life the social construction of reality developed by the dominant institutions serve as agencies of social control. This is relevant to understanding both how older people view themselves and their roles in society as well as how planners perceive and relate to older people.

### **3.3.2 Feminist Approach**

The feminist perspective also provides a powerful lens through which to critique the modernist approach to population aging, especially the aging of women. This critique has significance for the aging population as one end of the life continuum is predominantly female requiring a lens that is sensitive to the issues of older women within the modernist

framework. One focus of the feminist critique is the intellectualization of gender related issues in the development of theory for social change (Ray, 1996). This critique investigates how gender relations are culturally and historically perpetuated and challenges established norms and values to ultimately establish new norms and standards for women. Feminist gerontology works to change attitudes about older people's positions in society that have evolved through restrictive roles, beliefs and stereotypes. The overriding purpose of feminist theory of aging is to correct the distortions in the lenses that hide the embedded biases in research methods and social constructs to uncover the social inequalities between the sexes. Another important aspect of this theory is its role in examining power relations within society and also the professional field studying the older population. One issue, in particular, that feminist theory works to overcome is the economic inequality between men and women. These studies focus on unremunerated women's work, such as caring for children and parents (Ray, 1996). The feminist critique also works to overcome the 'age mystique', the assumption that aging is synonymous with physical, psychological and social decline which is assiduously reinforced by the media (Friedan, 1993). It is even suggested that the study of aging focussing specifically on older people has in point of fact heightened this image by framing aging as a problem to be managed furthering negative reinforcement of aging. The feminist perspective calls for a positive outlook on aging, a complete turnabout in the way we know and perceive aging, older adults and in particular older women.

### **3.4 Concluding Comments**

Moody (1992) commends a theory that sheds positive light on the aging years within the human life course framing them in an optimistic light of life worth living. Clearly, old age suffers from a vacuum of meaning as many seniors purchase self-help books about suicide. Suicide among seniors, especially older white males, is one of the top ten causes of death in older people (Moody 1994). Marshall (1991) also argues that it is time for society to adapt to the aging population. Noting that Canadian policies have heretofore emphasized the well-being of all people, obvious by the staunch support of universal medicare, Marshall (1991) calls for such an inclusionary policy direction for older adults. Accordingly, people who are 65 should not be viewed as an anomaly in society but valued members in the life course (Marshall, 1991). From the literature it is evident there

is a changing trend in thought, at least in theory, that older adults and especially older women have not received their due in the predominant modernist approach to planning and research. Moreover in the community, older people are often ostracized, ignored or at best patronized as a special group that needs assistance. The critical and feminist theoretical approaches offer an alternative model for planning for an aging population that is inclusive as well as biocentric. A systems approach should be applied to planning for population aging making this age group an integral part of one system. The phenomenon of population aging is not separate from the rest of society nor are the researchers and planners separate from the community and aging population.

### **3.5 Concept of Sustainability**

The postmodernist critical and feminist approaches and their focus on both social and environmental justice provide theoretical frameworks that support sustainability. This concept, however, not unlike many other theoretical concepts is difficult to conceptualize let alone operationalize. Thus the term has been appropriated in many contexts meaning different things to different people. Health Canada has used the term to suggest a new direction in health care that is economically sustainable (Angus et al., 1995). The World Health Organization uses the term recognizing the connection between ecological systems breakdown and public health (Litsios, 1994). Although it is not a new idea, its meaning remains an enigma that is still being unraveled more than a decade after the World Commission's report on the Environment and Development was published. The definitions of sustainable development are many and the concept is still controversial, contested and open to contradicting interpretations. The Brundtland report's oft cited definition proclaims sustainable development as the goal of economic policy and defines it as development that meets "the needs of the present without compromising the ability of future generations to meet their own needs". (World Commission on Environment and Development, 1987). From an ecological perspective, the term connotes development that is not only growth oriented but is inclusive of other dimensions such as social and environmental. Although sustainability is a planning goal, attempting to reach a sustainable endpoint is for the most part a plan in process or a vision to work towards (Blassingame, 1998).

Jacobs (1991) suggests that the term as used in the Brundtland report embodies three fundamental elements. First of all, the meaning is inclusive of the ecosphere heretofore ignored by orthodox economics. Second, the term includes the equitable distribution of resources for all inhabitants living on the earth now and in the future. And most importantly, the term makes a distinction between the meanings of growth and development. Whereas growth simply refers to an increase in size, usually measured in financial terms, the word development implies a broader concept meaning to expand to full potential (Jacobs 1991). It is important to make this distinction when differentiating between development that is sustainable and development that is not sustainable. Historically, community and housing development, whether for the aged or for the rest of the population, has been based on a quantitative growth model (McClain, 1991). Employing the definition of Meadows et al. (1992) that growth is a quantitative increase and development is a qualitative improvement indicates that sustainable development does not just refer to an increase in size and quantity. Applying this concept to housing and population aging means looking at the available housing stock as well as the needs of the older population. Thus needs could be met through innovative and creative options requiring the least amount of resource input.

### **3.6 Sustainability Measures**

There are many indicators and measurement tools that are suggested first of all to provide a baseline measurement of the state of the environment, and secondly to gauge whether there is improvement over time. Some of these alternative tools and indicators also measure well-being and quality of life. One planning tool, the ecological footprint measure, is used to measure the material resources and energy throughput that a population or even an individual requires in order to live. Another measure of well-being, a counterpoint to the Gross Domestic Product (GDP) indicator, is the Genuine Progress Indicator (GPI) which measures human well-being. The following section describes these as alternative tools that provide some indication of what traditional measures fail to indicate.

#### **3.6.1 Ecological Footprint**

Wackernagel and Rees (1996) have developed the ecological footprint, a conceptual planning tool which compares the appropriation of material resources and energy to the

availability of resources. The ecological footprint analysis estimates in land and water-area equivalents the resource consumption and waste production of a population: the quantification of material and energy flows supporting that population and the corresponding significant sources of resources and sinks required for wastes. Thus, the ecological footprint of a specified population is the area of land/water required to produce the resources consumed and to assimilate the wastes generated by that population on a continuous basis wherever on the planet that land and water source may be. For instance, the fruits and vegetables imported from outside of this country are included in the calculation. Although the land and other energy inputs required to produce these products are not within our artificial boundaries, the people who consume them are appropriating the resources regardless of where the energy source originates. A similar footprint calculation has been modeled to measure the ecological impact of a household. The EcoCal, a computer based calculation measuring the ecological footprint of an individual household, translates the energy requirements for transportation, fuel consumption, water use, house and garden requirements and personal consumption into an equivalent land value (Simmons and Chambers, 1998). The energy requirement for the transportation component is the highest rating of the major categories used to measure energy consumption. Regardless whether a household has only a hectare energy equivalent footprint or a 5 hectares footprint, the transportation category still requires the largest amount of energy input. Walker and Rees (1997) note that regardless of housing type, the energy component attributable to transportation is the most compelling predictor of a larger ecological footprint.

These models provide a vivid picture of an approximation of how much energy an individual or country appropriates in real land terms to continue their accustomed lifestyle. For instance, the average Canadian "uses" about seven hectares of productive land and water, the third highest footprint of the 52 countries measured and ranked in this study, and containing about 80 percent of the world population (Wackernagel et al., 1999). Only Australia and the United States have larger ecological footprints of 23 and 24 acres per person respectively compared to Canada's 18 acres per person. (Wackernagel et al., 1999). This means that the people in Vancouver who are living on



11,400 hectares are appropriating the biophysical output of 3.3 million hectares or 290 times their geographical space (Rees, 2000). At the other end of the scale four countries, Ethiopia, India, Nigeria and Pakistan share the dubious honour of having an ecological footprint of only 2 acres per person while Bangladesh has the lowest footprint of 1 acre per person. This one acre footprint is, however, one acre over its ecological capacity which means that although people use very few resources it is still more than the productive capacity of the country for its population size (Wackernagel et al., 1999).

Ecological footprinting highlights the obvious that urban areas which are becoming larger and more prominent are inherently unsustainable entities (Rees, 2000). Cities do not have the energy and resources necessary for their own consumption thus making them increasingly vulnerable to accelerating ecological changes near and far. Not only is it necessary for cities to control their material resource appropriation but they must also be ever vigilant in maintaining their ecosystem health. Once ecosystems have been compromised it is nigh impossible to recover them (Rapport, 2000). Rees (2000) posits that cities per se have no ecological integrity having degraded their environmental communities beyond recovery. Notwithstanding this urban degradation, careful restructuring and redefining of space will allow some improvement in the ecological health of the urban hierarchy. However, this can only occur if the urban centre achieves a stable relationship with its contributing hinterland (Rees, 1999, Daly and Cobb, 1989). Keeping in mind the major contribution of the transportation component of the ecological footprint, community planning that supports the reduction of automobile use will significantly reduce the footprint and the associated ecological impact.

### **3.5.2 Indicators of Well-being**

Many tools and techniques have also been developed to measure individual or national prosperity. The GDP is an economic measure that adds the reclamation costs of earthquakes, droughts and floods to total production figures regardless of whether the product is used to add or detract from quality of life. Health costs related to air, water and soil contamination are included in this calculus although such costs are due to negative health effects caused by human activity (Daly and Cobb, 1989). Since the GDP is only a reckoning of money spent it is not sensitive to whether the money is spent to enhance

well-being or to reclaim health. Nor is it sensitive to the many services that do add to well-being such as child-care and elder care. It also cannot measure environmental services crucial to human survival such as the value of pure water and air. In contrast, the GPI<sup>5</sup> is an alternate measure that factors into its calculations these many externalities. This measure differentiates between negative and positive economic transactions thus identifying whether the outcome adds or detracts from the person or country's well-being. Expenditures required to maintain a safe and secure environment such as environmental abatement expenses and crime related expenses are subtracted from the balance to provide a clearer picture of human well-being and quality of life. Accordingly in 1988, the GDP showed a rosy picture of close to 4 percent economic growth (USA), whereas the GPI showed a continued steady decline, albeit at a percentage point higher than during the previous ten years (Cobb, et al., 1999).

### **3.7 Urban Sustainability**

Translated at the urban level sustainability includes incorporating planning and design strategies that reduce car dependency and its concomitant energy use to reduce the ecological footprint. Compact communities with a higher housing density as well as less interior floor space per household further contribute to reducing the ecological footprint (Walker and Rees, 1997). The urban sustainability literature focuses not only on the transportation dilemma but also on community design that integrates the natural urban features within the built environment. Physical design can ensure the integrity of the natural environment through environmentally efficient development. Sustainable communities are characterized by minimum land use for maximum utility supporting such planning strategies as infill building and mixed land use development. Public transit as extensions of pedestrian oriented traffic patterns within these more intensely developed communities focus around centrally located facilities and services (Roseland, 1994; 1992; Breheny, 1992). Such tightly woven communities where people can walk to facilities and services away from the busy automobile monopolized thoroughfares provide not only a safe environment for older people but also engender a sense of place and identity with the community, important determinants of well-being for older people.

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<sup>5</sup> The Genuine Progress indicator (GPI) was developed in 1994 by Redefining Progress, a nonprofit nonpartisan public policy institute attempting to develop new tools and concepts for a sustainable future.

Since urban centres are social products, they are also the intersections of social and physical sustainability. Sustainable urban planning integrates the needs of the environment and the needs of the diverse social and cultural entities that make up the built urban environment (Milgrom, 1998). Involvement in both the community and the planning process enhances quality of life. It emphasizes livability through safety and equity through the provision of affordable housing and equal access to facilities and services for all members of the community (Spain, 1995). The concept of self-reliance is also an integral part of a sustainable community. Although complete self-reliance in terms of food and material goods is difficult to attain, communities can work towards more self-reliance with home and community gardens, cooperative purchasing programs and community sharing and volunteer programs. Housing cooperatives and barter networks are examples of community owned and operated enterprises that also contribute to a self reliant and socially cohesive community (Bookchin, 1994b). Accessible public open spaces attractively designed with indigenous landscaping requiring minimum amounts of water are also more sustainable. Permaculture horticulture that is not chemically or energy dependent is another more sustainable practice. These intensified communities also facilitate more efficient use of urban infrastructure such as water and sewer mains, public transit systems, and energy technologies.

### **3.8 Alternative Worldview**

Incredible as it is, environmental forecasts cause little or no angst in industry or policy planning circles, nor generally speaking in the community (Rapport, 2000). One reason may be that human impact on biophysical systems only becomes noticeable after a prolonged period of time and therefore is not associated with environmental damage (Rees, 1998). Consequently, problems only become noticed many years after the fact when ecosystems are already at a breaking point. In addition, the economic and political elite make decisions based on the neo-classical economic model which does not acknowledge that ecosystem resources are the source of all economic activities. The natural systems are the real limits to material growth as they are the life-support functions that are being depleted (Rapport, 2000; Rees, 1999; Rees, 1989). Technological substitution is not the solution to the ecological dilemma; energy conservation is the only risk averse strategy (Rees, 1989). However since the ecological economics approach

based on the premise that our resources come from the earth and as such are finite is still viewed as alternative since it does not subscribe to the positivist measurement approach (Daly and Cobb, 1989).

In summary, it is evident that a change is required in the way humans relate to the earth and its resources. A paradigm shift is in order. This will require reverting to a pre-Cartesian worldview where the earth is seen as a system, not as a machine which can be taken apart and analyzed in discrete sections and then put together piece by piece (Rees, 1999; Norgaard 1994; Aberley, 1994). As such, people must accept that they are participants in most of the world's ecosystems and that material economic activity is "inextricably integrated, completely contained, and a wholly dependent growing subsystem of a non-growing ecosphere" (Rees, 1999). The worldview that this change demands is a return to a holistic paradigm valuing the world as a complex system and recognizing the interdependence of all phenomena and the inclusion of all people within the cyclical natural processes.

Given this imperative, it is important that social and community planning models embrace the ecological as well as the social and economic dimensions in working towards sustainability. A planning framework that supports sustainability is inclusive of all members of society, regardless of ethnicity, social and economic standing, abilities and age. Therefore in planning sustainable communities the aging population is integrated within the mainstream encouraging involvement in the planning process and in the social milieu. The physical environment and the built environment are planned and developed to be flexible, safe and secure for all members of the community including the older population. The ecological planning paradigm that is supportive of the ecological and social systems within the natural world meets the needs for an improved quality of life equally for young and old. The principles of this planning model intersect with the professed needs and preferences of older people. Therefore it may not be that older people require special consideration but rather that special consideration needs to be applied to all people as well as the natural systems wherein they live.

## **Chapter 4 Characterization of the Aging Population**

### **4.1 Introduction**

This chapter characterizes the aging population by highlighting significant issues related to population aging. The first section looks at the population aging concern examining statistics relevant to planning for the aging population in urban communities. The topic areas have been selected based on predominating topics in the planning literature include housing and health related issues, migration and mobility patterns, and socioeconomic factors. Ethnic minorities are also discussed as this constitutes a significant group of marginalized people in the older population. The second section addresses some of the values and beliefs attributed to the older population.

### **4.2 Life Expectancy and Gender Differences**

Life expectancy has risen significantly in Canada; increasing by nearly thirty years in the last century alone. In 1991, life expectancy reached a record high of 80.9 years for women and 74.6 years for men. Projections for 2016 are 84.0 years for women and 78.5 for men (Dumas, 1998). However, there is some speculation that this ratio may peak in 2001, but that the predominant female population trend will continue until about 2030 when women's and men's life expectancies may move closer together again. This will occur as more women fall victim to what were once considered traditional causes of male mortality (Dumas, 1998). This gender difference that favours women over men is a recent development occurring only in the last century. Prior to 1901, men outnumbered women in all age groups 55 and over and only in 1961 did women between 65 and 74 years of age start to outnumber men. For women 55 to 64 years of age this reverse trend did not start until 1971 (based on 1991 revised population projections, Priest, 1994). The implications for a predominantly female population in the older age groups are many, specifically in the areas of health, housing, and socioeconomic considerations (Moore et al., 1997; Kane and Kane, 1990).

Although the leading cause of death for seniors is heart disease and cancer, death rates from these diseases are much higher for men than for women. Nevertheless, in the last decade and a half the death rate from cancer among senior women has risen faster than that among men. In particular there has been a significant increase in these rates in

women over the age of 60. It is also found that deaths in the 65 to 74 age group are predominantly related to cancer whereas in the 85 plus age group more deaths are attributable to heart disease (Statistics Canada, 1999: 58).

#### **4.2.1 Health and Aging**

There are a number of significant age related health issues unique to the aging population. First of all, there is a positive correlation between aging and the onset of chronic health conditions and physically disabling illnesses. The numbers unequivocally show that as people reach 85 years and over they have more disabilities requiring assistance. In 1996, 82 percent of all people 65 and over living at home were diagnosed with at least one chronic condition. Eighty-five percent of women reported having chronic health conditions compared to 78 percent of men in this age group with most frequently reported health problems being arthritis and rheumatism. Some of the other reported conditions in order of severity are high blood pressure, allergies, back problems, and cataracts (Statistics Canada, 1999). Moreover, as people get older, the incidence of dementia related illnesses such as Alzheimer's disease also rises. In the 90 plus age group it is estimated that this rate is close to 40 percent (Gallagher, 1994). Innovative measures will be required to assist these people either at home with their families or in settings outside the home.

These higher rates of frailty, disability and chronic conditions contribute to increased use of health care facilities. The figures indicate that health care usage, generally speaking, doubles every decade after age 65 (Moore et al., 1997; Kane and Kane 1990).

Nevertheless older people tend to perceive themselves as healthier than these statistics and objective health conditions would suggest (Idler, et al., 1999). When a five-point scale<sup>6</sup> is used to measure health most of the people view themselves as being independent. There are significant gender differences, however, as 78 percent of the men consider themselves not disabled, or disabled and not requiring assistance while only 64 percent of women rate themselves in this manner (1986 data) (Moore et al., 1997: 119).

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<sup>6</sup> The five categories are: the not disabled; the disabled who do not require assistance; the disabled who need help with instrumental activities of daily living (IADL) such as shopping; those who require help with activities of daily living (ADL) including bathing and dressing; and finally those people who are in institutions.

According to these figures then, not only are there significantly more women in the older age categories but they also tend to have more chronic health conditions and be more frail than men in these same categories. The disparity between personal perceptions and professional perceptions has significant health and service care implications. Given that older people perceive themselves healthier than professional experts perceive them to be has implications for the type of services that they may receive based on an expert's opinion. The focus of services and care should complement perceived limitations rather than overcompensate their abilities. This may occur if the assessments are based on objective health measures.

#### **4.3 Ethnicity and Aging**

As the population ages the numbers of older people in minority groups also increases (Boyd, et al., 1994). Between 1985 and 2050 the highly ethnic older population in Canada is projected to rise from 10 percent to over 21 percent of the elderly population (Daniels, 1994). There are also significant differences between the Native and Non-Native populations in Canada; the Native population's median age is about ten years less than the total population. In 1991, the median age was only 23 years for the Aboriginal population whereas for the total population it was 33 years (Wister and Moore, 1998: 107). The implications of the increasing proportions of elderly in minority groups are different from those of the non-ethnic groups. Many of these people are in multiple jeopardy based on ethnicity, age, and sex risk factors all associated with a higher need for assistance with housing and services. Moreover, there are differences in the ethnic social structures that determine age-related behaviour. These cultural differences require unique approaches that are to date not well understood (Ujimoto, 1987). The increasing cultural diversity will require a planning approach that relates to the unique differences of a pluralistic community.

#### **4.4 Mobility and Migration**

Numerous studies focus on both the geographical distribution of the aged and their propensity to move (Moore et al., 1997; Gutman, 1985). Increasing numbers of older adults are living in suburban areas and not in inner cities suggesting that these people intend to age in place in suburbia (Smith, 1998; Moore et al., 1997). The inner city decline in the aging populations may be attributable to revitalization programs that have

displaced seniors who could not afford the higher rents. Such migration patterns have policy planning implications for service providers in the suburban communities as providing services over a larger geographic area is inefficient and much more costly. The low densities in suburban areas are known to be mitigating factors for the lack of efficient public transit services. A trend towards a more geographically dispersed aging population will require innovative community planning in providing facilities and services accessible to the population that requires it the most. The more vulnerable elderly, those people with physical and mental limitations living in the suburban communities, are at the greatest risk for not having their needs met (Smith, 1998).

Within the country, inter-provincial migration trends indicate that older adults tend to return to their province and communities of origin in order to be close to their families and friends (Baxter and Ramlo, 1999). Many seniors also migrate to warmer climates, notably British Columbia, Ontario and Prince Edward Island (Moore et al., 1997). Nevertheless, as a population group, seniors are considered more stable residentially than the younger age groups with the majority of seniors living in urban areas. One theorist identifies three types of moves that are made by seniors (Longino, 1990). The first move is the one that occurs when people retire and it is often lifestyle and amenity related. The second move is associated with the onset of limiting disabilities and is termed "kinship migration" as people often move closer to their families. And the third move is motivated by the need for services above and beyond what the informal sources can provide (Longino, 1990). Notwithstanding this typology not all seniors follow this pattern as the older population is a diverse group with varying needs, preferences and choices.

#### **4.5 Socioeconomic Status**

Poverty, a universal concern, is linked to a number of factors. Variables such as age, gender, single status and belonging to an ethnic minority have been correlated with income levels (Moore et al, 1997). Although statistics indicate that the elderly are just as likely to live in poverty as people in other age groups, there is also a greater proportion of the elderly who are living very near poverty. The rates increase for each successively older population with the oldest of the old having the highest poverty rates. Women who are married usually have lower rates of poverty whereas women who are single, widowed



and living alone are associated with higher poverty levels. Many women's economic status alters significantly upon the death of their partner due to the loss of the partner's pension income (Boyd, et al., 1994). The numbers are clear that poverty rates for seniors, especially single seniors, are fairly significant. In 1996, the poverty rate for unattached seniors was 37.3 percent whereas for senior couples it was only 8.6 percent. National data for 1996 indicate that 45.4 percent of women living alone who are 65 years and over compared with 29.3 percent of unattached men are considered to be in poverty (Gutman, 1999). Another significant observation is that single mothers, presently the only other age group whose poverty rates rival those of older women, will be the next generation of senior women. Thus, support and opportunities for women of all ages to enter and remain in the labour force should be a policy priority as should the recognition of the many years of work that women provide in the home.

#### **4.5.1 Income and Wealth**

Of the number of sources from which older people draw their income the source that provides the largest proportion is the government social security system. The other most significant source of income is from personal assets, although this is unevenly distributed throughout the aging population. For instance in 1984 the top 10 percent of Canadians owned more than half of the wealth (Gifford, 1990). Private pensions, earnings and other sources account to a lesser degree for seniors' remaining source of income. (Boyd, et al., 1994). Clearly, economic resources influence residential choices. People with personal income sources other than social security and pension funds have many more options available to them than do seniors with limited resources or on fixed incomes (Dumas, 1998). Those older people who have limited incomes living either in self-owned homes or renting will probably require some type of support to assist them to remain in the community. These may take the form of household renovation programs, rental assistance, or affordable housing options.

#### **4.5 2 Retirement and Labour Force Participation**

Retirement, a social construct of the Western world, is lasting much longer than it did at the turn of the 20<sup>th</sup> century. One reason for this is the substantial increase in life expectancy during old age resulting in many more years of potential retirement. In addition, technological changes responsible for both skill obsolescence and industry

downsizing have increased the number of people retiring at relatively younger ages (Dumas, 1998). As a result, there will be a growing number of retired and unemployed older people supported by a smaller cohort of younger workers.

However, since the line between retirement and employment is becoming increasingly blurred as both working and retirement patterns are changing this may not be the crisis that some envision. Although retirement rates are increasing, many people 65 and over are still participating in the work force in either full-time or part-time positions after they have retired from full-time employment. One notable trend is that people with higher education are remaining in the labour force much longer. However, when comparing men and women in the labour force, while more men are in the full-time labour force more women work part-time for longer. In the part-time labour force men reach their peak participation rate in the 80 to 84 age group whereas women's peak participation rate is between 75 and 79 years (Figure 4.1). Although men reach their peak part-time employment later than women there are fewer men in each group working part-time which reflects both the decreasing numbers of men in every age group as they age and the increased numbers of women living alone, many of whom are in or near poverty. The earlier decline in women's participation in the labour force may be a consequence of the increasing number of health conditions women have as they get older. This trend shows that more women than men are employed part-time in every age group over 65 (Dumas, 1998: 160). The general trend is that women of all ages 65 and over living alone whether single by choice, divorced or separated are remaining in the labour market longer than other men or women not living alone. In the coming decades the next cohorts of the 65 and older population may have greater labour force participation rates especially since these ranks of older people will have larger numbers of both educated people and single women. Hence, in future years more older citizens may remain in the labour force either by choice or by necessity.

### PERCENTAGE OF THE LABOUR FORCE AGED 65 AND OVER WORKING PART TIME BY AGE GROUP AND SEX, CANADA 1991

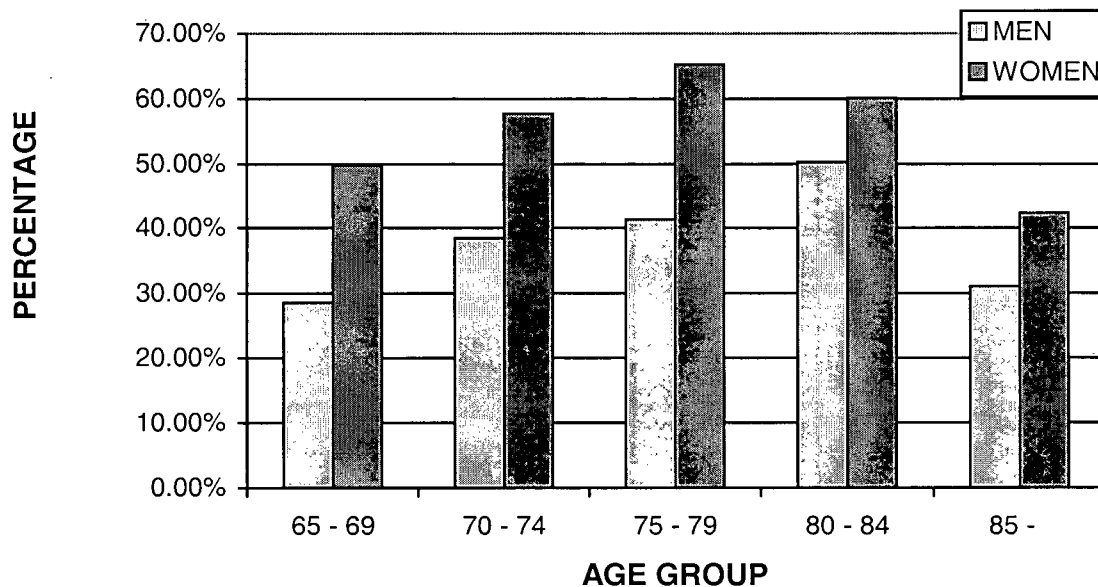


Figure 4.1 (Dumas, 1998:160)

#### 4.6 Housing and Aging

It is a misconception that many seniors are frail, disabled and living in facilities. In reality only a very small proportion of people 65 and over reside in collective dwellings; the rest all live in private housing. In Canada in 1996, 98 percent of the people aged 65 to 74 lived in private housing whereas 85 percent of people 75 and over lived in private dwellings (Baxter and Ramlo, 1999: iii). This leaves only 2.4 percent (2.5 percent females and 2.3 percent males) of people 65-74 living in collective dwellings and 14.8 percent (17.5 percent females and 10.1 percent males) of people 75 and over living in collective dwellings (Figure 4.2) (Baxter and Ramlo, 1999: 6). Out of the 2.4 percent seniors between 65 and 74 years of age living in collective dwellings, three quarters live in institutions and the remaining one-quarter lives in other collective dwelling categories (See Appendix B for Statistics Canada definitions).

Of the seniors living in these collective dwellings those living in hospitals and related institutions make up the majority. Only 0.4 percent of the people living in collective

housing are not in this category. This translates to 1.8 percent of people 65 to 74 and 13.7 percent of those 75 and over living in hospitals and related institutions (Baxter and Ramlo, 1999:10). The figures for 1991 separating the 75 and over category into smaller age groups show a significant increase in the numbers living in institutions starting at age 85 (Figure 4.3). In the 85-89 age category 28 percent of the population was institutionalized and in the 90 plus category 48.1 percent (52.4 percent women and only 36.3 percent men) (Baxter and Ramlo, 1999: 11). Within this category most seniors are in seniors' residences and special care homes and not in acute care hospitals. In sum, in 1996, the vast majority of seniors 65 and over, even people in their 90s, lived in private residences like most other people in society. Baxter predicts that this trend is likely to continue over the next thirty years although the absolute numbers for each age group will increase (Baxter and Ramlo, 1999: 21). Clearly, as people get older, the numbers of people who are institutionalized increase, especially for women who are 75 years of age and over. The two explanations are again that women live longer and older men are still living with their spouses who may be caring for them in private dwellings.

#### SENIORS IN COLLECTIVE DWELLINGS, CANADA 1996, PERCENTAGE OF AGE GROUP

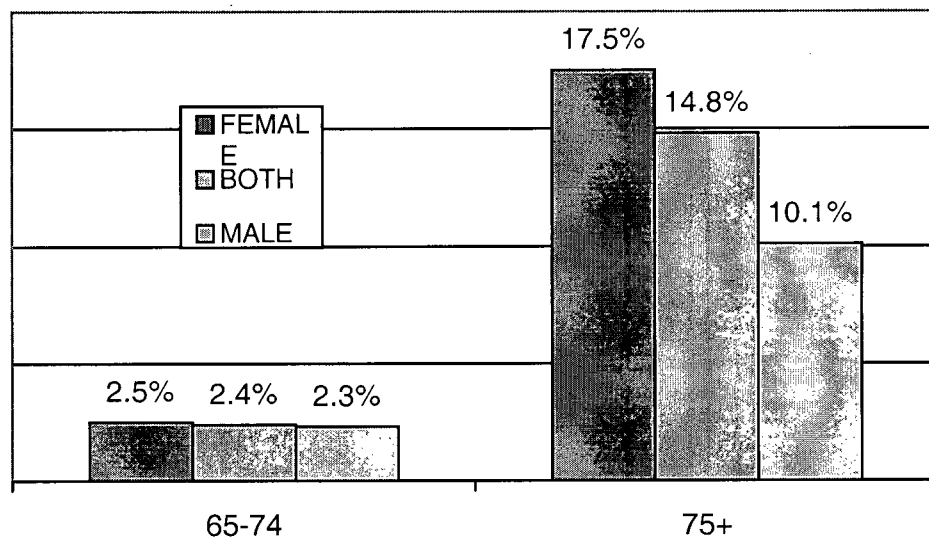


Figure 4.2 (Baxter 1999:6)

### PERCENT OF AGE GROUP RESIDENT IN HOSPITALS AND RELATED CARE INSTITUTIONS, CANADA 1991

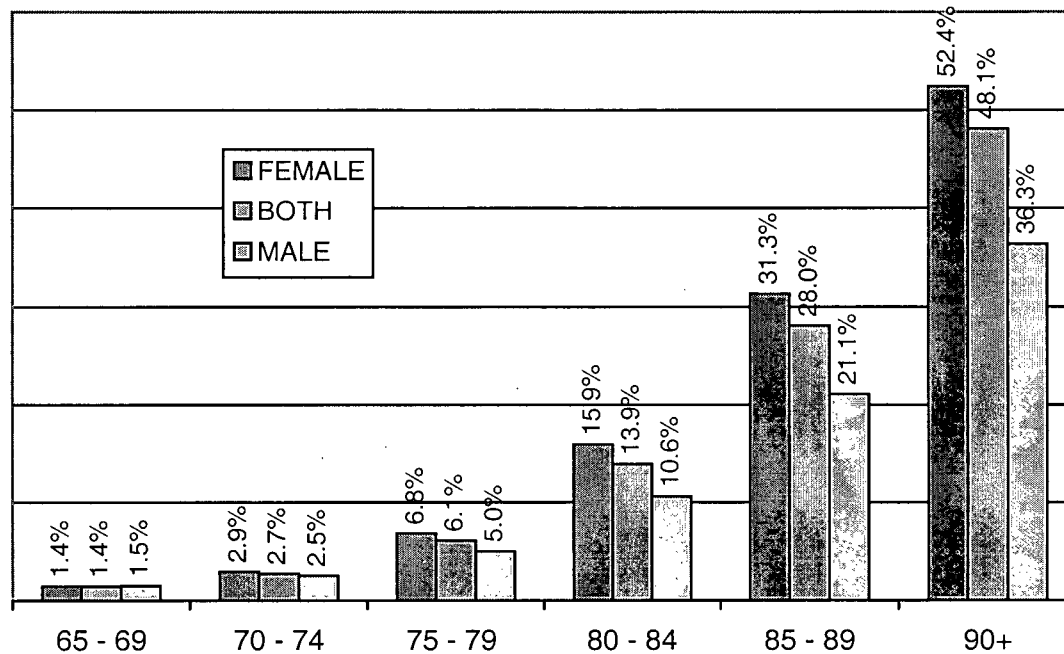


Figure 4.3 (Baxter and Ramlo, 1999:11)

#### 4.6.1 Housing Tenure

Homeownership, a Canadian hallmark of stability and success, is still the favoured tenure type for the older population. Home ownership by people aged 65 and over has been rising continuously from 17.1 percent in 1981 to 21.7 percent in 1996. At the same time, household maintainer rates for rented accommodation also rose, albeit at a slower rate from 16.5 percent to 17.3 percent (Gutman, 1999). Maintainer rates, however, for all types of owner-occupied housing for people 65 and over steadily decrease for men from a high of 70 percent in the 65-69 age group to a low of 39 percent in the 85 plus age group (Figure 4.4). For women, on the other hand, the curve peaks somewhat later. The female owner-occupier maintainer rate is low in the 65 to 69 year age group rising to a high of 30 percent in the 75 to 79 age group after which it declines gradually to 19 percent in the 85 plus age group (Figure 4.5) (Baxter and Ramlo, 1999: 25). These figures also reflect the increased male mortality rates over time leaving women to continue maintaining the home until it becomes too difficult for them to manage.

**AGE AND TENURE SPECIFIC HOUSEHOLD MAINTAINER  
RATES, MALE 65 PLUS POPULATION, CANADA, 1996**

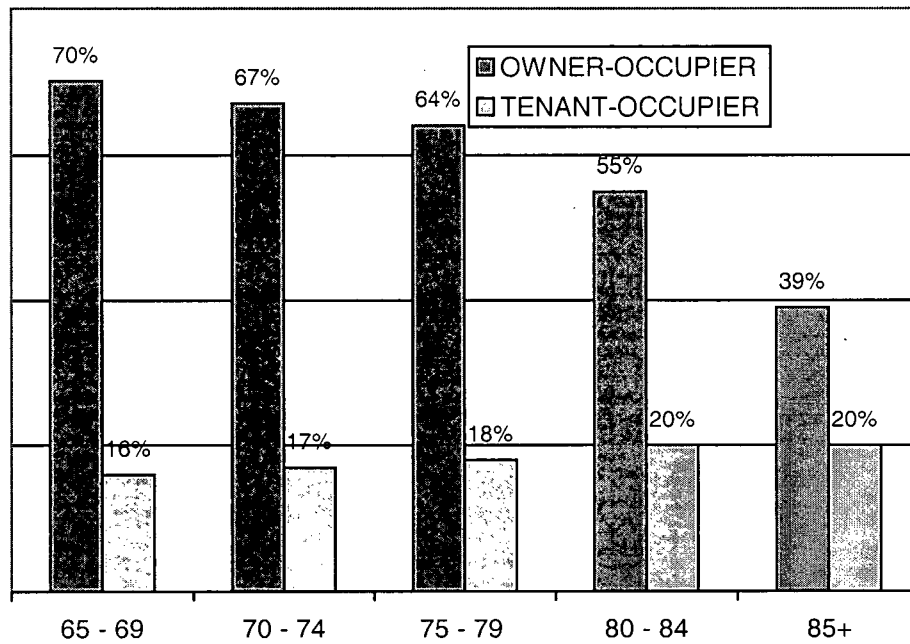


Figure 4.4 (Baxter 1999:25)

### AGE AND TENURE SPECIFIC HOUSEHOLD MAINTAINER RATES, FEMALE 65 PLUS POPULATION, CANADA 1996

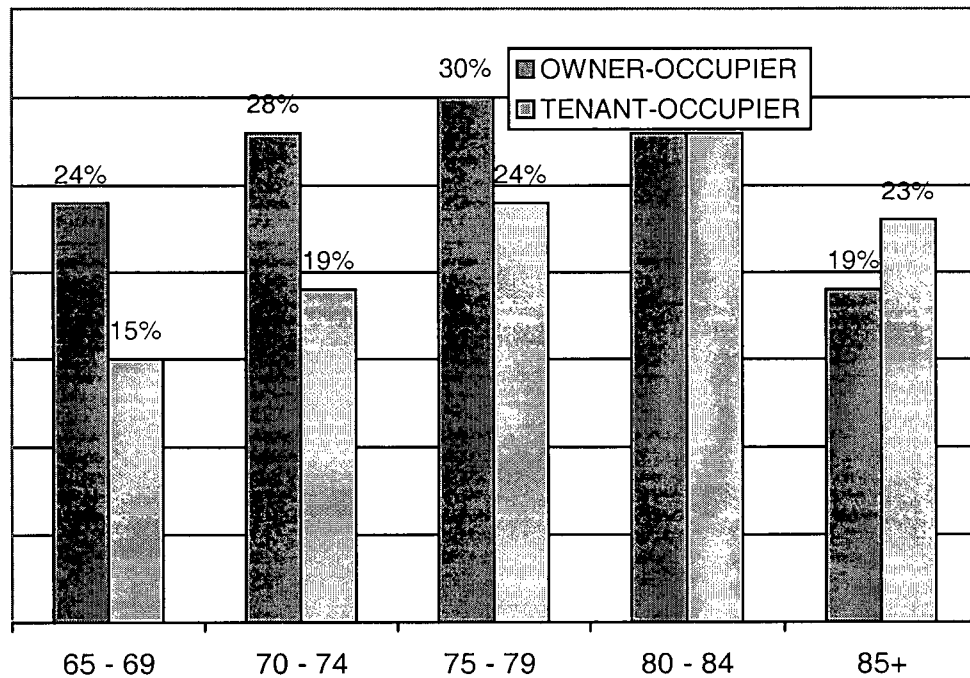


Figure 4.5 (Baxter 1999:25)

#### 4.6.2 Housing Structure Type and Maintainers

There is a strong correlation between housing tenure and housing structure type for seniors with a propensity to own ground-oriented accommodation and rent apartments. Men are usually the household maintainers<sup>7</sup> of single-detached houses. Again, the life course peak mimics that of housing tenure with men having the highest maintainer rates of single detached houses between the ages of 65 and 69. And it does not decline significantly until they reach the 80 to 84 age group. The 1996 data indicates that seniors between 75 and 79 have the highest household maintainer rates of the total population at 66 percent with the 70 to 74 and 80 to 84 age groups second highest at 63 percent each. Women maintainer rates increase with age to peak at 56 percent in the 80 to 84 age group after which it declines to 43 percent in the 85 plus age category (Figure 4.6). This is again the result of increasing mortality rates for men leaving their partners behind to maintain

<sup>7</sup> Household maintainers are those people who are the primary financial supporters of the household. A person who is not a maintainer is someone who is maintained by someone other than a spouse, for instance

what used to be the family home. This increased mortality rate affects the data in two ways. It reduces the number of men maintainers, who were the maintainers in a two-person household, while at the same time it increases the number of women maintainers (Baxter and Ramlo, 1999: 23).

The data indicates that the proportion of maintainers for the 75 and over population rose substantially between 1971 and 1991. One source suggests this trend is attributable to increased incomes and to the fact that more men are living with spouses who are maintainers (Priest, 1994). However, Baxter and Ramlo (1999) argue that the trend is attributable to increasing male mortality rates and increasing numbers of men living in collective dwellings as the number of men maintained by someone else remains stable across all age groups (Baxter and Ramlo, 1999: 23). Regardless of the reasons these statistics are indicative of the propensity for seniors to continue to remain independent in their private homes as they have the highest maintainer rates of all age groups.

#### AGE SPECIFIC HOUSEHOLD MAINTAINER RATES, 65 PLUS POPULATION, CANADA, 1996

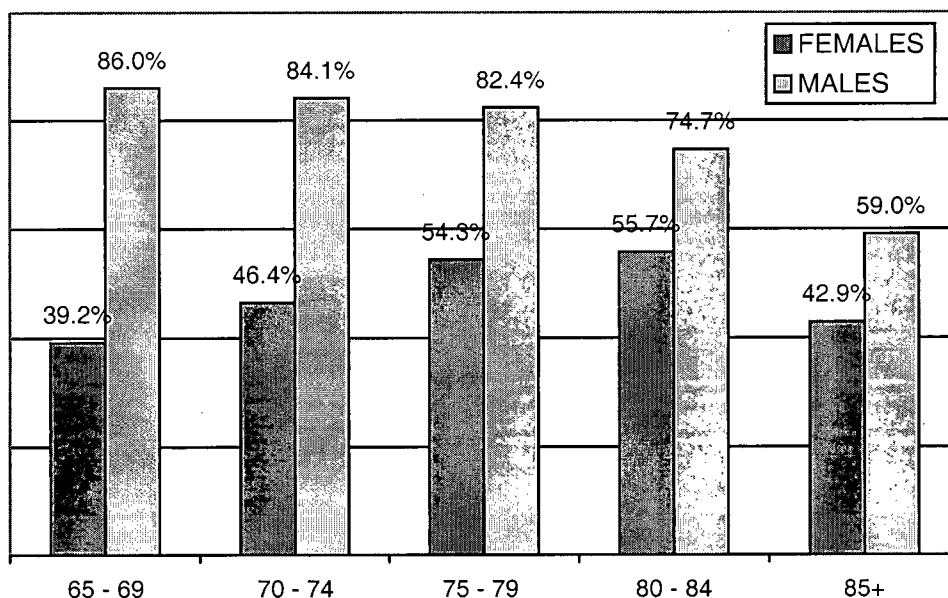


Figure 4.6 (Baxter and Ramlo, 1999:23)

a daughter or housekeeper. These are the people who are living with someone else, such as with family, or in institutions, rooming houses, hotels and other collective type settings



### 4.6.3 Living Arrangements

There has been a significant societal shift in living arrangements in the last few decades which applies even more to older adults. The numbers of older people living alone, especially women, has been increasing dramatically since the 1950s. In the thirty years between 1961 and 1991 the proportion of Canadian women aged 65 and over who lived alone more than doubled from 16 percent to 34.2 percent (Wister and Gutman 1997). In 1996, out of the total population of seniors 65 and over, 29 percent were living alone, nearly twice as many women as men compared to 20 percent in 1971 (Figure 4.7). At the same time only 9 percent of people between the ages of 15-64 were living alone. It seems many more women today are living alone by choice as they prefer their independence to living with their adult children or someone else (Boyd, et al., 1994; Doyle 1994). Three hypotheses are given for this phenomenal change in living arrangements. One is that the lower fertility rates have produced fewer potential adult children co-residents. Another suggestion is that increased incomes have made it possible for older people to buy more privacy in terms of living arrangements. And the third hypothesis is the “normative or cultural hypothesis” which asserts that fundamental changes in society have increased the value of independence and privacy in living style (Wister, 1989).

**PERCENTAGE OF SENIORS LIVING ALONE,  
1971 - 1996**

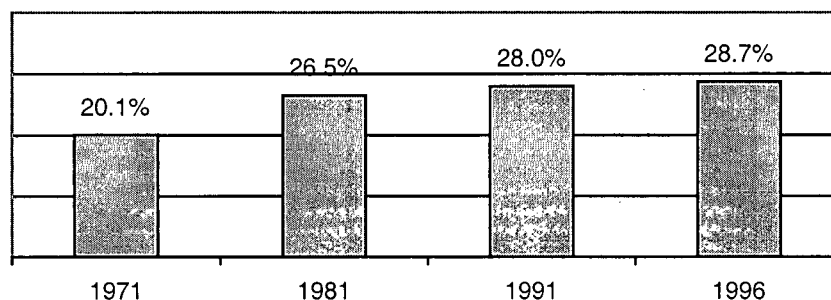


Figure 4.7 (Statistics Canada, 1999:32)

Whatever the reasons, as the population ages, and especially as women age people are more likely to be single and live alone. In 1996, almost 80 percent of women aged 85 and over were widowed compared to 58 percent in the 75-84 age group, and only 32 percent in the 65-74 age group. At the same time, only 11 percent of women 85 and over lived

with their spouses while 30 percent in the next lower age group and 54 percent in the youngest group between 65 and 74 years lived with spouses. Obviously then, the oldest age group are the most likely to be living alone. Fifty-eight percent of women aged 85 and over and 49 percent of those 75 to 84 lived alone (Statistics Canada, 1999: 32).

Over the decades there has been a trend away from the traditional family unit and the extended family as a support network. First of all, lower fertility rates have reduced the number of potential supporters, and secondly, because people are more mobile family members have moved further afield. Moreover, there has been a change in marriage patterns, more separations and divorces both among the offspring and between senior partners. Some of these structural family patterns have led to unprecedented structural changes altering the status and roles of grandparents in particular. It is still unknown whether blended families will provide the same support as the nuclear family structures or if the divorced and remarried offspring will provide the same amount of caregiving as seniors become more dependent. It is suggested that these diverse family structures have the potential of providing a greater kinship support network (Johnson, 1992). Family structures are further altered by the reduction in marriage and fertility rates resulting in fewer numbers in each consecutive generation. Consequently, the kinship network will be more vertical with children, grandchildren and great-grandchildren becoming part of the network (Himes, 1992). In addition, there is a greater tendency for older women, more so than older men, as they age to live with their families and especially with their daughters. In 1996, 10 percent of women aged 65 and over lived with extended families and only 3 percent of men lived in such a household (Statistics Canada, 1999: 31). This trend has planning implications in terms of zoning for multi-family housing and secondary suites which is often a contentious issue in suburban neighbourhoods.

#### **4.7 Implications of Demographics**

Clearly, there will be a societal shift towards meeting the needs of an aging population, but the housing needs for the vast majority of the older population will remain much the same whether people are 64, 74, or 84 years of age. Regardless of age, most of these people maintain their own homes whether they rent or own them. In addition, many more seniors and people who will be the next generation of seniors may choose to remain in

their homes and age in place, hence a significant stock of housing is already utilized by these seniors or potential seniors. This means that seniors per se do not necessarily require new housing stock as they already live in dwellings and many of them will remain in these homes over the long term depending on their functional abilities (Brink, 1990). However, the conundrum lies in the fact that many of these houses are not necessarily suitable for people with varying degrees of abilities and therefore are in need of renovations and retrofitting. Nevertheless, the housing industry and the market attempts to capitalize on the demographic retirement trends by building housing purportedly targeting the older population.

Apart from the fact that there will be more older people in all the age categories 65 and older, there will also be a significant increase in the number of women living alone, especially in the old old category which is heavily weighted by these women. According to statistics, these women are also most at risk for requiring financial assistance, health care and home support. Creative and innovative planning will be needed to support these women within their homes and communities. Since there are some people who either prefer or need to live in collective dwellings this is an opportunity to develop community-oriented homes for seniors that can be incorporated and centrally located within the local communities. The numbers indicate there will be a greater demand for collective dwellings than for private accommodation because of the significant increase in the old old age group, although the need for both types of dwellings will increase faster than the population as a whole according to Baxter and Ramlo (1999). As it is expected that seniors will remain healthier and fitter longer than in the past proportionately fewer collective dwellings may be required in the future. Finally, the increased numbers of seniors in ethnic minorities will also require increased services attentive and sensitive to their cultural differences.

The migration and mobility trends to urban centres and to areas with better climates by the younger age groups will provide opportunities for planning and developing neighbourhoods that are compact, safe and centrally located close to health services and facilities. As the tendency is for seniors to maintain their own homes and to prefer ground

oriented housing, especially in the under 85 age groups, those people who already live in their homes and communities will require support and assistance for home maintenance. As well, there is no indication that the numbers of household maintainers will decrease as the figures show that women are increasingly maintaining homes at older ages. Since the number of female maintainers is on the rise, regardless of whether they are widowed or not, it is obvious that women prefer to maintain their own homes as long as they can. Baxter and Ramlo (1999) observes that the one overriding trend of all seniors regardless of gender and age is the preference to be home maintainers and not live in accommodation maintained by someone else (Baxter and Ramlo, 1999).

Obviously, demographic data does provide some information about this age group as a whole; however, it falls short of completing the picture to gain a broader understanding of older people in their social and physical environments. There is no doubt that the 65 and older age group will continue to grow much faster over the next decades, especially as the baby-boomers enter their ranks. These trends will have significant implications for housing, health and social service provisions. Although people are entering their senior years healthier than past cohorts, they are also living longer and some of them will ultimately require some care, albeit at an older age (Baxter 1999; Gutman, 1999). The 85 and older category may require more services to facilitate their activities of daily living within their homes and communities. The 75 and over age group, expected to triple over the next few decades, will also be requiring services for health, housing and care given that they may have a smaller generation behind them to provide informal care (Priest, 1994). In the future the adage 'don't add years to life, add life to years' will gain greater currency as the boomers become the seniors in the demographic pyramid. More privileged, more educated, more aware and informed, the baby-boomers are often considered to be the 'great expectations' generation. It is also expected that boomers will be demanding more and better services to support them in their senior years (Roszak, 1998).

#### **4.8 Preferences and Needs**

Age is only a descriptor; it says nothing about people's habits, beliefs, values, goals or experiences. Much like gender and race, age does not identify people outside the social context that gives them meaning (Neysmith, 1987). This next section looks at some preferences and needs of the socially defined older adults. The phrase quality-of-life is examined to highlight how value-laden this term is. Since the main goal of all planning is to improve the quality of life for older adults, it is important to examine the meaning of this term. Then the importance of social networks and their implications for health are addressed as are some of the purported values and beliefs of older people.

#### **4.9 Quality of Life**

One professional planning goal is to improve quality of life for everyone, or at least for the majority of the population. There is a perception that a universal societal consensus exists regarding this concept although exactly what quality of life means and by what frame of reference is difficult to discern. Factors such as a person's individual and cultural values or religious and spiritual orientation play an important role in determining "quality of life" (Clark, 1995). What one person considers a good quality of life may for another person be a life fraught with pain and misery. Throughout the literature the term is loosely used implying an improvement in the welfare of the community or a person's satisfaction with life. Clearly, individual perception of what this term implies varies widely depending on the frame of reference brought to the concept. What is not clear from the literature, however, is whose definition of quality of life has the right of way. In the instance of planning for the elderly population, the professionals, the family and the older person may all have different perceptions of what quality of life means for them.

Clark (1994: 402) suggests that this concept is "crucial and confusing, important and intangible, clinically central and conceptually illusive". Studies have found that older people have a very different perception of their quality of life as they rate their health much differently from professionals or even family members (Idler, 1999). For older adults, environmental factors such as privacy, pleasant living conditions, independence, self-sufficiency and interpersonal relations are considered much more important to personal well-being than objective health factors. Housing satisfaction is also dependent

on attributes outside of the physical. The neighbourhood, the proximity of friends and neighbours, access to the necessities such as grocery stores and health clinics as well as proximity to cultural and recreational activities have been found to be more important than physical housing features (Pastalan, 1997).

Clark (1995) suggests that when working with seniors a goal-oriented approach that is considerate of the person's frame of reference, or way of knowing, rather than the traditional problem-based approach should be used. This goal-oriented framework recognizes that factors such as wisdom, physical maturation, and the need for independence are integral to assessing the needs of older people. Becoming involved with the older person and seeking to learn from them is both empowering and reflective for the older person and the professional working with them (Clark, 1995). Older adults must have genuine input into the planning process of a goal-oriented approach to ensure that their perception of quality of life has precedence.

#### **4.9.1 Support Systems**

There is no denying that support systems are essential to quality of life for older people. The informal support system, the family and friends that a person has nurtured over a life time, and the formal support systems that are built into the social fabric are equally important. Since the importance of the formal and informal support systems for older adults cannot be overrated, some discussion is required at this point to mark its relevance. It should not be surprising that seniors require friends and family networks since support systems are the hallmark of life satisfaction at every stage of the life cycle. Young people, in particular, spend a great deal of time developing a network of friends.

There is considerable research on the relationship between social interactions and quality of life (Chappell, 1991; Labonte, 1991). Social support and connectedness is related to health. Both the quantity of social and community networks and the quality of support provided by these networks are important. Social systems not easily discerned from demographic data are considered the glue that holds society together. The loss of social support systems is considered to be as detrimental to health as smoking (Labonte, 1991). Support networks are invaluable for health and well-being of the elderly, especially

during periods of stress and crisis (Chappell, 1991; Labonte, 1991). Unfortunately, as friends die, families move and seniors become less mobile, they are more likely to become isolated and even depressed unless they have access to other types of support services. It is at this point that the community has an extremely important role to play in supporting social interaction to ensure integration within the community. Labonte (1991) notes that the lack of social networks is a determinant of institutionalization. It is therefore a function of the community to remove any barriers to social interaction and provide supportive opportunities. As Canada already has one of the highest rates of institutionalization, Labonte (1991) suggests that more community support systems could be provided to assist more seniors, especially the senior elders, to remain in their homes and communities. Informal support, predominantly provided by the family, already makes up 75 to 80 percent of all care given to seniors in the community (Marshall, 1991: 74). This unpaid informal care already exceeds the value of formal services by three to four times the amount of formal care provided (Angus et al., 1995). Obviously the informal support system already makes a valuable contribution to the welfare of older citizens.

While family and friends can and do provide the majority of assistance ranging from personal care such as bathing and dressing to shopping and paying the bills, there is also a need for formal support systems to assist older people to maintain their independence at home. The term independence is used with caution as no one is really totally independent, but dependent on others to some degree. This is a valid argument for seniors even more so as they may be more dependent on others over the life course. White and Groves (1997) argue that between independence and dependence there is an in between possibility which is interdependence. For the purposes of this study the term independence is used to include the concept of interdependence.

Many communities have implemented a wide range of services such as respite care, home care, and meal services (Chappell, 1991). Another vital area where assistance is needed is in supporting informal caregivers. Many caregiver networks and support programs have been developed to provide education and general support for the many Canadians who

are caring for family members or friends. Many of these people themselves become isolated and require help in meeting their own needs if they are to continue helping others to remain in the community (Greene and Monahan, 1989). These are all strategies that allow older people to be interdependent with the community.

#### **4.9.2 Intergenerational Support**

The intergenerational conflict thesis has heretofore focused on the potential problem of the aging population as it becomes a heavier social burden on the younger generation (Moore et al., 1997). There is evidence to the contrary, however, suggesting that relationships between generations are beneficial to both parties. Studies indicate that there is a co-operative rather than conflictive spirit and that reciprocal exchanges of material and emotional support often characterizes these arrangements (Prince, 2000). The oldest age group, the people 85 and over, in particular are often the family kin-keepers, sometimes holding families together by very tenuous strings. Although the relationships of the very old are primarily with people outside their residence and more often cross-generational with grandchildren or great grandchildren, the solidarity and support they receive from the younger generations helps them through many later life crises. (Troll and Bengston, 1992).

In terms of intergenerational relations and co-habitation, the literature on family related life-course transitions investigates the issue of adult child returnees to the family nest. Such relationships are noted to be quite co-operative, in particular when there has been a fairly amicable relationship prior to these new living arrangements (Mitchell, 2000). Generally speaking, however, parents feel they are benefiting more from these arrangements because they receive emotional and physical support from their children through companionship and day-to-day interaction. Since the 1970s there has been an increase of about 10 percent in adult child returnees (Mitchell, 2000: 83).

#### **4.10 Values and Beliefs**

##### ***Political Advocates***

The older population is just as interested in politics and the affairs around them as any other age group sometimes taking an even greater interest in politics. One Canadian example of seniors' activism is a demonstration on Parliament Hill in 1984 when the



Conservative party led by Brian Mulroney tried to clawback the indexation of old age pensions (Gifford, 1990). This event was a culmination of fifty years of organizing federations of pensioners across the country. An internationally renowned figure, Maggie Kuhn, the leader of the Grey Panthers, made headlines in the 1970s when she was fighting for seniors' reform in the United States. Although seniors are a heterogeneous group, when it comes to asserting themselves they have a strong network that can be mobilized to vote as one voice in a crisis (Gifford, 1990). Seniors not only have advocacy power and political power but they are also gaining more economic power as they become a larger block of consumers and investors. This is recognized in the marketplace as promotions and discounts are given to seniors by many commercial and banking establishments. Seniors also get reduced rates when they use public transportation and ferry services. Seniors as a group have the greatest influence over pension investments because they have the numbers to make their demands heard (Gifford, 1990). Since the future seniors are projected to be better educated they may prove to be an even stronger political and economic force in making their demands heard. Blais (1991) suggests it would behoove professionals to begin listening to seniors and work towards consensus in developing programs that also meet some of their needs.

### ***Social and Environmental Advocates***

Seniors are also becoming more concerned about social issues related to equity and affordability. In the past seniors groups have spoken out against free trade, and some seniors are involving themselves with environmental concerns (Ekstrom and Ingman, 1999). Recently there is a greater emphasis on seniors returning back to school, and it is through education that they may also become more aware of the environmental imperative.<sup>8</sup> Ekstrom and Ingman (1999) assert that a new educational paradigm is evolving to also engage seniors in sustainability issues. Seniors in the US have become active volunteers in environmental groups monitoring water quality and forming their own environmental consulting practices. In 1992 an Environmental Alliance for Senior Involvement (EASI) was founded in Virginia to coordinate many of these voluntary organizations.

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<sup>8</sup> The SFU Gerontology department (February, 2000) previewed a production of their video depicting a senior citizen returning to university to obtain both an undergraduate and a graduate degree.

On the other hand, however, studies have found that the present senior cohort is less concerned about environmental issues than younger cohorts (Blake et al., 1996; Boutelier et al., 1996). In a study asking specifically how concerned people are with the environment, the middle-aged were more concerned about environmental issues than the over 65 age group who were significantly less concerned with environmental issues than any of the other groups (Blake et al., 1996). In a Greater Vancouver Regional District study that addressed increasing housing densities to reduce urban sprawl, the over 55 age group were "significantly less" tolerant of increased densities within their area than were those people under the age of 35 (Boutelier et al., 1996). This may be construed as good news as the middle age cohorts who are the next generation of aged are considerably more concerned with environmental issues and more tolerant of ameliorating measures than the present cohort of older people. Since they will be the next generations of older adults, these present values bode well for the future.

Ekstrom and Ingman (1999) argue that there is a need for a paradigm shift on two levels. The older generation must become more ecologically astute, and at the same time society must become more age tolerant and respectful. The older generation should once again be respected for their wisdom and life experiences like the traditional Native elders who passed on their cultural and spiritual beliefs and values about their connectedness with the Earth to the younger generations (Brody, 1988). By aggressively supporting social equality and environmental sustainability seniors can regain their respect in society (Ekstrom and Ingman, 1999). In this way senior members of the community can assist in building communities of place where all rights are respected, those of human and natural species alike.

#### **4.11 Sustainable Model for the Older Population**

In sum, the older population is a diverse and heterogeneous group characterized as increasingly multicultural with differing backgrounds and socioeconomic means. In particular, a large proportion of this age group will be women living alone, many because they so choose and some because they are widowed. Many of the present and possibly future seniors may remain in the workforce either full-time or part-time because they

choose to or because of financial necessity. Moreover, increasing numbers of seniors are either returning to school or becoming involved in the community and are more aware of the environment in which they live. This trend to remain active in the community, whether through employment, community work or education, augurs well for raising the profile of the older population. Their increased involvement as activists and advocates in the community and in environmental issues will raise their awareness and sensitivity to the impact of human activity on the earth. A consequence of this increased connectedness within the community and with the ecosphere may put seniors in the vanguard for change. They may be instrumental in bringing about a change in both their own perceived value in society and the perceived value of the earth as an integral part of human systems.

As people age their tendency towards introspection and spirituality, characteristics that are linked with well-being, makes them more cognizant of their roles as stewards on this earth (National Advisory Council on Aging, 1995b). Moreover older people, already having lived through the materialistic stage and witnessed its resulting devastation on society and the planet, have the wisdom and motivation to make changes in later life. Carl Jung (1994) asserts that since the latter part of life is not programmed by the principles of youth, this stage of life has a significance of its own. He argues that the goals, aspirations and values of youth must be forsaken for more valuable sources of fulfillment (Jung, 1994). Keeping in mind the gerotranscendence theory that recognizes older people are in a transition stage (Schroots, 1996), older adults have the potential to revert to a holistic lifestyle where they can embrace their status as it is circumscribed by ecological limits.

As noted, older people want to remain in their homes and be a part of the community. From the characterization of older adults, there is evidence that they also want to live in compassionate communities that are ecologically conscious, socially equitable and economically viable. Communities that are inclusive and well-coming providing livable spaces so older people can meet and engage with their friends as well as access facilities and services meet their needs. Human development, which integrates health/social well-being, environmental quality/ecosystem health and economic activity, is one model that

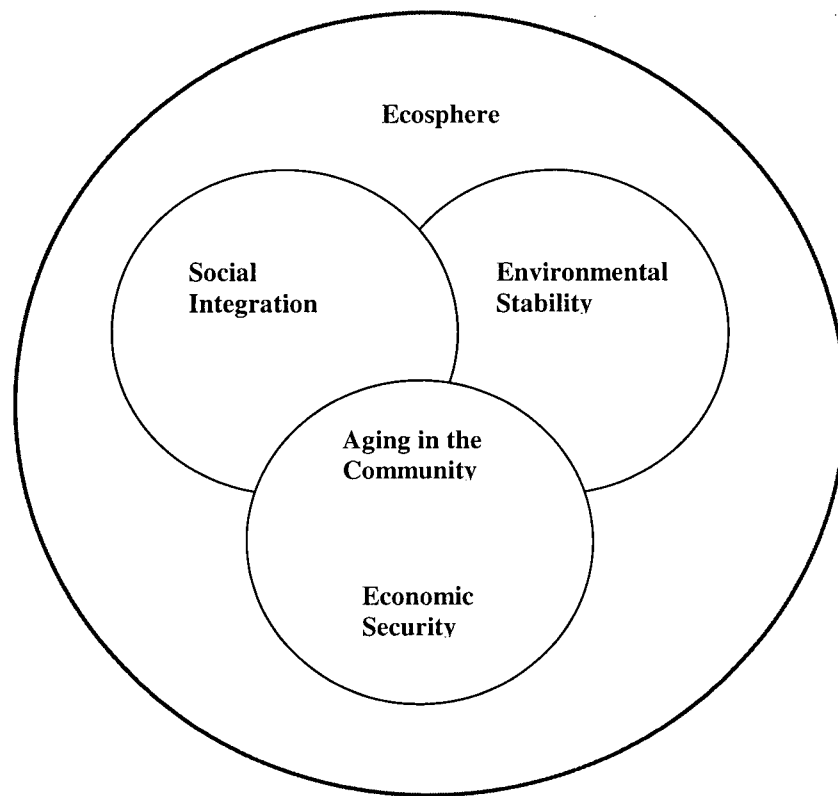
illustrates the essential aspects of life (Hancock, 1996). A common pictorial representation frequently used to depict the holistic approach indicating that all life dimensions are integrated and within the global ecosphere is shown in Figure 4.8 (Hancock, 1996; CMHC, 1995a; D' Armour, 1991). The traditional model is modified using different terms to highlight the major issues important to older adults. In the social sphere social integration is the key factor underlying health and well-being of people as they age.

Of course economic security is also important for well-being and it is used to depict the economic sphere for the older population. Although economic adequacy is the goal of other sustainable models, within the older population, especially those people who are depending on limited financial resources, the concern centres around economic security to ensure the basic needs of shelter and sustenance are met. Most seniors are still actively taking part in the economic system whether they are managing their personal affairs or are active in the work force employed either part time or full time. Therefore, the older population also requires communities that provide both economic security and employment opportunities.

Environmental stability refers not only to the natural environment but also to the need for stability of the physical environment that includes housing and community resources. Older people prefer to remain in their homes and in communities with which they are familiar so in this sense stability is an important issue. It must also be recognized that all three of these spheres are dependent on the ecosphere, the resource and energy base supporting the human social, economic and environmental activities. In summary, the older population wants and needs to be integrated and normalized within the community framework and requires stability of both the built and natural environment.

**Figure 4.8**

**Sustainable Community**



## **Chapter 5 Aging, Health and Housing: Policy Directions**

### **5.1 Introduction**

The focus of this chapter is on the two areas of population aging that are considered the greatest challenge for planners and policy makers, health and housing. It is obvious that many of the programs and policies that are related to housing and health are developed in the modernist tradition. Corroborating this perspective is Moody's (1976) four-point typology that corresponds with the modernist/postmodernist dichotomy and its underlying values.

### **5.2 Social Values Underlying Housing and Service Policies**

Moody (1976) provides a conceptual framework depicting the social values of Western societies that have underscored the housing and service delivery patterns over the decades. His four modes, although they reflect an evolutionary trend in service delivery, are not mutually exclusive (Figure 5.1). The first mode, the rejection model, reflects the lack of housing and services for the elderly in the early part of the 19<sup>th</sup> century when most of the older people were cared for either by the family or in large alienating institutions. This model coincides with the advance of the industrial society when older people were relegated to the periphery as useless and redundant, especially if they were frail and dependent (Moody, 1976).

**Table 5.1                      Modal Patterns for Treatment of the Aged**

Modal Pattern	Characteristic	Basic Attitude
Rejection	Segregation; mandatory retirement; poverty; neglect; family abandonment	Repression, avoidance
Social Services	Transfer payments (welfare, social security); professional care; senior centres	Social conscience, liberalism
Participation	Second career (employment of volunteer activity); senior advocacy; autonomy	Social integration, normalization
Self-actualization	Individuation, psychological growth, and self-transcendence	Wisdom, ego-integrity

(Moody, 1976: 2)

Moody's (1976) second mode, the social service model, depicts values that still underwrite most of seniors' service policies. This model supports the philosophy that experts and institutions are required to manage the 'problems' of older people. It reflects the ideology of the welfare state formed to ameliorate the neglect of those people excluded from mainstream society. The public realm takes care of the casualties of the industrial society with a spectrum of specialized services provided through systematic bureaucratic benevolence. This bureaucratic service delivery system is so rigid and directed that many older people either never access it, or once they do access the system they become dependent and 'overcared' which in turn leads to learned helplessness (Heumann and Boldy, 1993). Although the focus of this policy trend is to keep people out of institutions, it also supports segregation through housing and social service programs. Bureaucracies are set up to underwrite and support large scale housing complexes and special retirement communities that serve to segregate the elderly from the rest of the population. In addition, the separation of the institutional agencies usually health, housing and social services makes it difficult for seniors to access the services they really need.

Moody's (1976) third value set, the participation model, is the one that needs to be employed in our social system. This set of values is characterized by progressive activism similar to that of the woman's movement which is advocating and lobbying for rights, recognition and equality. Planning practices based on this value set allow that the older population is pivotal to the planning process. Older people are instrumental in determining their needs and are integral in the process of service development and delivery. With regards to housing, this value set offers innovative and exciting opportunities for enabling seniors to regain their autonomy and independence through a self-determined process. Housing would be flexible allowing for many environments where people can age in place through a range of changing abilities. Ideally housing and service options should provide support only at the margins of an older person's abilities, as identified in Lawton and Nahemow's Competence Press Model,<sup>9</sup> and their desires to care for themselves (Heumann and Boldy, 1993).

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<sup>9</sup> See Appendix C for an explanation of the person environment fit hypothesis.

Although this set of values does not necessarily exclude age-segregated housing, it does advocate a variety of both private and publicly funded housing options to meet the needs of the diverse aging population. Affordability should not be a discriminating basis for housing options and availability in this mode of service delivery. However, service programs assisting people to stay in their homes and communities if they so choose should also be included. Another distinguishing feature of this mode is that service packages are discretionary so that older people can maintain their autonomy by choosing only the services that meet their needs (Heumann and Boldy, 1993). Brink's (1994) suggestion for policy reform delinking housing funds from service and health funds supports such a model. Such a dramatic move would ensure that older people could remain in their residence even as their personal circumstances and functional abilities changed over time unlike the present options usually combining housing and service provisions in one package. Not only would this be less distressing for the older person but it might also be less costly. Integrating the principles of the participatory mode into planning and policy practices would ensure a more inclusive model of planning to meet the changing needs of the heterogeneous and diverse older population.

Even though Moody (1976) notes that the most enlightened and progressive community planners are already basing their work on these principles, Canada's system is primarily still based on the social service mode rather than this participatory mode (Heumann and Boldy, 1993: 28). However, the principles of this participation model could easily be incorporated in the aging in place planning concept. Countries like Sweden, Australia and Japan already use either a participatory approach or a blend of the social service and participatory approaches in planning and implementing housing and service programs for seniors (Moody 1976).

The final mode that Moody (1976) discusses is a rather utopian vision of what could be. It is a reformist model, an anticipatory perspective of what aging would be like if the participatory approach became ingrained in the societal belief system. This self-actualization approach reflects one of the higher-level human needs espoused by Maslow (1970) and supports a holistic view of life. The self-actualization perspective infers a



vision of aging that has heretofore gone unrecognized in modern times; it is a vision of what can be uniquely possible for this stage of the life cycle. It is not just an extension of past roles and responsibilities rather it offers new and exciting possibilities for rejuvenation and growth through learning (Moody, 1976). The aging process would be similar to a right of passage to a more evolved state of being. However, since this philosophy of aging is in its embryo stage, not much information is available about how it can be translated into the life course. The implied requirements for planning practice would be more attitudinal than substantive. Since mainstream planning for the aging population does not embrace the holistic integration of the body and spirit in the planning process, spiritual and personal dimensions are not usually addressed. Some sources, however, already recognize that the spiritual dimension is an important aspect of successful aging and well-being (Telford, 1999; Schroots, 1996).

Moody's (1976) modal patterns correlate with the theoretical planning models outlined in Chapter 3. The participatory model moves closer to a sustainable model of planning whereas the self-actualization model fits within the holistic planning or ecological planning model, with one caveat that neither mode incorporates a biocentric ethic. These modal patterns are clearly reflected in the housing and service delivery practices explained further in this chapter.

### **5.3 Health Determinants**

In recent years there has been a greater recognition that a healthy community of people is dependent on factors exclusive of objectively measured physical health conditions. It has been found that many subjective determinants of health have a greater bearing on well-being than objective health measures, especially in the aging population. Although the link between socio-economic status and health has long been understood, other factors such as social networks noted in Chapter 4 are in fact the strongest health determinants (Telford, 1999; Doyle, 1994; Chappell, 1991). Moreover, factors such as control and autonomy are also associated with levels of psychological and physical well-being. People who have a strong measure of control over their personal life exhibit a higher level of both physical and psychological health, whereas those people who have lost control of their personal life circumstances often present with low self-esteem and a lack

of motivation (Suggs and Logan, 1994). The sense of helplessness can be further aggravated by the lack of choice in making life decisions. In addition, fewer opportunities to meaningful community participation have also been found to have a detrimental impact on health (Doyle, 1994; Golant, 1992; Labonte, 1991). Obviously planning processes that involve older adults in planning and developing housing and service options allowing them to make independent decisions regarding their choices can enhance both their physical and mental health.

The evidence linking these social and environmental factors to health in turn implicates housing as a health determinant as the dwelling and its environment are strongly associated with well-being in this broader meaning of health (Doyle, 1994). Although the objective features of a dwelling and home are important to well-being and quality of life, the subjective factors similar to those associated with health also apply to housing. Thus the home from which people derive satisfaction and a sense of place is not only a safe and secure haven but also a repository of many physical and psychological health determinants. Moreover as people get older, the dialectic between safety and independence becomes a central focus as people strive to retain their independence while at the same time require more assistance with security and safety (Lawton, 1998). Developing housing options and planning strategies to support both these objectives proves challenging, especially as these are dynamic and context specific factors varying in degree and consistency across the population (Lawton, 1998). In summary, housing is much more than a dwelling; it gives people a 'sense of place' providing them with an identity and a purposeful outlook on life. From this perspective housing for the elderly can be viewed as an investment in community health (Rabinovitch and Weber, 1993). Clearly there are many subjective values associated with housing. Apart from the basic need for shelter, the built environment also meets the higher order needs of self-actualization and self-esteem.

#### **5.4 Health Care Policy**

The apocalyptic discourse of aging and its deterministic approach is also applied to aging and health care. Here Foot, Stoffman (1996) and others have led the way in predicting dire future fiscal consequences for health and welfare. However, the increasing numbers

of older people might in fact be offset by the trend towards better health, healthier lifestyles, and improved sanitation and health care (Palmore, 1986). This negative attitude focuses only on the projected numbers and proportions of the aging population, not on the socio-economic, political and institutional environment in which they live, let alone the changing characteristics of the population.

Demographic data shows that Canadian health costs have risen substantially over the last few decades from 7.3 percent of Gross Domestic Product (GDP) in 1980 to 10 percent in 1993 (Angus et al., 1995: 7). Interesting to note, however, is that both Canada and the United States size and growth in health care expenditures have risen more rapidly than most of the other Organization for Economic Cooperation and Development (OECD) countries (Angus et al., 1995). Although the single largest expense is for acute-care hospitals, one other area where costs have risen substantially is in prescription drugs, particularly for the older population.

Although it is irrefutable that health care costs have risen, it is questionable whether the aging population is responsible for the increase. Barer et al. (1995) assert that population aging per se accounts for only a small portion of the increased health care costs and it will not be the major reason for future increases despite increased projections in the aging population. Studies have found that increases in pharmaceutical costs and hospital services for seniors are due to more intensive service provision for each age group and not absolute increases in the aging population (Barer et al., 1998). It is also suggested there is a significant distinction between health care service provision and population health. Even though the total population has equal access to services, this does not necessarily mean everyone has equally good health (Evans, 1995; Evans et al., 1994). Research suggests that many people, especially those people in older age groups, are not well served by the present acute care system of service delivery (Evans, 1995; Evans et al., 1994; Chappell, 1988). To cite an example supporting this view 20 percent of hospital admissions for Canadians 65 and over are due to adverse drug complications (Labonte, 1991). There may be some maladies that could be reconciled with alternative practices and treatments more suitable to an aging population.

Even though health determinants are much broader than just health service indicators, there has been a lack of motivation in changing the medical system from a medical model to a community prevention model. A number of reasons underscore this lack of motivation. To begin with, the medical-industrial complex is well entrenched and many institutions are involved in maintaining the status quo. Since the services provided by this acute care system are deemed to be superior to community care and because it is difficult to measure the value of preventive health, the medical system continues to receive the bulk of the support (Chappell, 1988). Secondly, there is also some concern that increased long-term community care will reduce the amount of informal care presently provided by family and friends. However, the lack of community support often leads to caregiver stress which ultimately leads to increasing care requirements for both caregiver and care receiver. Chappell (1988) charges that not enough research has gone into determining the efficacy of formal health care services, nor has there been an accounting of whether or not medical treatments improve the quality of life for older adults.

Nevertheless, policy reform is slowly moving towards a decentralized approach to health care. Angus et al. (1995), in their extensive investigation of health care costs in this country, recommended a reduction in acute care facilities and increased community health services to reduce health care costs. They further recommended more services for informal caregivers who are instrumental in assisting older people to remain in their homes. Another suggestion put forth is that population health be given a broader definition, one that embraces the cultural, economic and social milieu in which people live (Carriere, 2000; Evans, et al., 1994). In conclusion there seems to be a fairly strong argument for an increase in community resources and services in lieu of acute health care services to meet the needs of older people living in the community.

### **5.5 Housing Policy**

Consistently the literature reiterates that older people wish to remain as independent as possible for as long as possible in their own homes, preferably for the rest of their lives (Gutman, 1999; Hodge, 1998; Brink, 1997; Golant, 1992; National Advisory Council on Aging, 1992; McClain, 1991). Failing that, older people hope to at least remain within their familiar communities and neighbourhoods (Lamey, 1999; Heumann and Boldy,

1993; Borden and McGregor, 1994; Dobkin, 1992; Callahan, 1992). Not only is housing recognized as a primary need of mankind (Maslow, 1970; Doyle, 1994), but according to the World Health Organization adequate housing is the single most important environmental factor correlated with life expectancy (Brink, 1994). Housing is paramount for people of all ages and as people age housing and services take on an even greater meaning in life (Daniels, 1994; Golant, 1992). As the population ages more research and planning is taking place on the impact of an aging population on society. Especially the future needs of the aging baby-boomers and predictions and implications of the increasing numbers of aged and their place in the social and natural landscape of communities and cities. Finding a way to maintain older people within their homes through creative options that do not bankrupt the government will be "the greatest challenge to public policy makers and to housing, health, and social service providers." (Dobkin, 1992).

Some indication of the pre-eminence of this topic in the public forum is evident through research publications produced by all three levels of government. In the early 1990s, Canada Mortgage and Housing compiled numerous documents providing a background of the issues related to the housing needs for seniors and prospective policy directions (CMHC, 1992; 1991a; 1991b; 1989). More recently, the provincial government has published a document outlining the need for supportive housing, what it entails and how it can be implemented (Ministry of Health and Ministry Responsible for Seniors, 1999). As well, the City of Vancouver (1994) supported a working group to define the planning needs for population aging in the urban setting (City of Vancouver, 1994). Clearly there is significant concern and interest in how and where the older population will be living as their numbers continue to increase. Interesting to note, the report for the city cited that the underlying issues in planning for population aging revolved more around attitude and community integration than physical development. This is a theme that resonates with the postmodernist planning thrust.

The history of housing for the elderly, particularly for the frail elderly, has come about by a somewhat circuitous route. Seniors housing in Canada was not considered a concern of

the welfare state until 1945 (McClain 1993). At that time lack of long-term care facilities and housing for the elderly, mentally and physically disabled, and increasing life expectancies led to the first housing developments for older citizens. In 1966, some twenty years later, the new Canada Assistance Plan spurred the development of more facilities as health care services provided in these facilities were now paid by government through a government cost-sharing scheme. At the same time the Medical Care Act and the Hospital Insurance and Diagnostic Services Act were passed to provide comprehensive coverage of health care needs in acute care hospitals (McClain, 1993).

These national insurance schemes have set the stage for a medically and institutionally focussed health care system which becomes transparent by the fact that physicians, who only receive 19 percent of the total health care budget, control through patient care approximately 80 percent of the insured health care costs. In addition, physicians have enormous control over health care management in acute care hospitals accounting for approximately one half of the total health care budget (Angus et al., 1995). Clearly the institutional medical system has appropriated a significant portion of the health care budget resulting in a system that focuses on acute care rather than chronic illnesses and long-term care. As noted in the previous section on Health and Aging, an aging society characterized by chronic illnesses and functional disabilities requires a health care system that is more flexible in meeting their non-acute care needs.

These vital pieces of legislation paved the way for the medicalization of the elder care available today and the structural framework became the cornerstone for housing policies that followed. Over the decades policy directions changed as costs became a greater priority. Whereas in the 1960s and 1970s the focus was on institutions and purpose built housing, in the 1970's 'housing alternatives' and 'choice maximization' became the trend. These earlier institutional models served to meet the needs of those people who for health, financial or social reasons could no longer cope in their own homes. In some cases people were 'overhoused' and 'overserved' because they did not necessarily require the services provided in these facilities. The later model, more cognizant of a heterogeneous community of elders, provided a range of options for affordable and

adequate housing for seniors. In this era, minority groups such as older women living alone, ethnic minorities, and the rural elderly were served by these programs (Wister and Gutman, 1997; Gutman and Wister, 1994). The most recent trend is “Aging in Place”, the concept of supporting seniors in their homes, neighbourhoods or communities as long as possible (Haldeman and Wister, 1993). Although the housing programs have changed over the years, the emphasis is still on providing social services for the older adults. The aging in place concept does offer an opportunity for more older population involvement, although this is dependent on how it is conceptualized and implemented. To date it appears that this concept is still approached in Moody’s (1976) social service mode, a top down model. However, British Columbia’s supportive housing document is offering suggestions on how programs can be implemented at the local level (See Appendix F for planning and policy issues regarding aging in place).

### **5.6 Aging in Place**

Although Moody’s social service mode has heretofore underwritten the policy and planning direction for housing the older population, ‘Aging in Place’, a term applied specifically to the older population, is a concept that in principle is congruent with alternative planning principles congruent with sustainability principles. This concept is as applicable to the total population as it is for older adults. To assure that people can age in place housing must be flexible and livable for people of all ages. This would reduce the amount of material resources and energy used in constructing housing that is age specific. More consideration needs to be taken of the ecological implications of consuming and discarding material resources through demolishing and reconstructing the physically built environment. Society needs to move away from the destructive disposable mindset that results in material and energy waste and subsequent burgeoning landfills. In this sense the concept of aging in place is more sustainable and it is applicable to everyone in society.

“Aging in Place” sounds like a simple concept; however, the literature exposes the many intricacies of operationalizing this planning strategy. This concept was transplanted from the United Kingdom in the 1980s where it became a policy prerogative to support older people living independently in their own homes in order to defer the costs of building care facilities. The term is used to cover the global conditions of maintaining people

either in their homes, their neighbourhoods or their communities. It is considered a way of providing for seniors who are frail and elderly in a more cost efficient and less dislocating and emotionally traumatizing way (Blackie, 1985).

Even though this concept evolved because it is considered fiscally efficient, it has the potential for being more sustainable socially, environmentally and economically. Aging in place is considered superior to other housing options for numerous reasons. First of all, economic inefficiencies are attributable to the high turnover rate of older people in purpose built facilities. Since most facilities offer an inflexible package of services when people's physical and mental abilities change they are required to move to a place that can meet their service needs.<sup>10</sup> As a result the facilities may suffer financial loss by having vacant suites and the individual suffers personal loss from the repercussions of social dislocation. The frequent moves also have ecological implications not only for the material energy input required to move but also for the addition or deletion of material goods people need when they make lifestyle changes. Secondly, relocation can be very stressful as it is often perceived as a personal loss when people are forced to give up their social networks (Golant, 1998). Third, as noted previously, some older people may be in facilities where they are "overcared" in anticipation of any future functional limitations which can be both economically inefficient and personally degrading. Fourth, many times older people are moved further away from their families and social networks which in turn can lead to diminished functional abilities and even depression. Finally, relocation reduces quality of life through the loss of personal control and dignity as a result of being transplanted into a strange setting away from everything that is familiar to them including the streetscape, the facilities and the shops and services (Heumann and Boldy, 1993). Clearly the moves required to fit the person in the correct environment are costly not only economically but also in the social and environmental sense as the frequent moves can have devastating personal implications as well as ecological ramifications. Consequently, aging in place is an option that has the potential for being more sustainable in the long-term. By supporting older adults to remain in their homes they maintain their autonomy

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<sup>10</sup> Stephen M. Golant, April 14, 2000. As a speaker at SFU on Assisted Living, Stephen Golant noted that the average length of time that older people reside in these facilities is four years. April 14, 2000.



and independence in their own community which can in turn lead to a reduction in institutionalization.

Approximately 80 percent of the older population have few or no problems with aging in place and require very little assistance living in their own homes. (Heumann and Boldy, 1993). Of the remaining 20 percent approximately 2 to 4 percent require assistance with affordability, while another 5 percent are institutionalized (USA rate). Thus less than 15 percent of the older population require assistance with aging in place (Canadian figures may be less due to the higher rate of institutionalization). Heumann and Boldy (1993) suggest that of those people who are institutionalized 1 percent might have remained in their communities with some assistance. The concept of aging in place has been studied extensively and many supportive policy suggestions are put forth to overcome existing barriers (See Appendix F for barriers to aging in place and supportive planning strategies).

Although there are many obstacles to aging in place, it is the most sustainable option in supporting seniors in an ecologically sensitive manner. Not surprising though is that the major barriers to aging in place, the present urban sprawl and autocentric development model, are the same structural barriers that hinder the development of compact sustainable communities. Moreover, this pattern of development does not bode well for aging in place sustainably as in the next few decades many seniors will be overhoused in large suburban homes. Statistics show that for homes occupied by people 65 and over the number of rooms per person increases. In 1996, the average number of rooms per person increased from an average of 2.0 rooms for people aged 15-64 who lived with family to 2.7 for people 65 and over. This number also rose 0.3 of a room to 4.6 rooms per person for unattached seniors (The National Advisory Council on Aging: Health Canada, 1999: 42). There will have to be attractive alternative options within the neighbourhoods and communities for these people to vacate their homes and move to smaller accommodation.

### **5.7 Concluding Comments**

Given the heterogeneity of the older population no single model of shelter or housing option reflects the needs of all older adults as there are many factors determining housing

and social service needs. A series of workshops held by Canada Mortgage and Housing in the late 1980s found that older people want to be involved in planning processes and to be provided accurate information about housing. Further, they want housing to be affordable, accessible, acceptable and adaptable to their changing needs without major renovations. The report also emphasized that older people want to be integrated in the communities and not segregated in "senior ghettos" (McPherson, 1998:174). Other significant factors to take into consideration when planning for seniors are their: family networks and caregiving resources; individual beliefs and values; individual lifestyle preferences; and socioeconomic status (Golant, 1992). The housing environment and the community in which it is located are also important to procuring safe and secure living accommodation. Furthermore, from a community planning perspective, the availability and proximity of transportation and the availability of community and home-based services are critical components of the same matrix. Specific physical planning measures such as ramp curbs, level sidewalks, ramped access to facilities, and appropriate lighting are just a few safety measures not exclusive to the elderly population but also beneficial to the young and the disabled (Taylor, 1998). Supportive design features and assistive devices inside the home further add to the livability for people whose physical conditions limit their mobility (Mann, 1994).

The complexity of planning for the future over 65 population requires a multidimensional approach to planning as the modernist unidimensional approach no longer suffices.

Taylor (1998) posits that even within the planning profession there will be a need for a transference of knowledge and skills between community and social planners to develop a common knowledge base and language to address the needs of the aging population. She suggests that through a common vision and collaborative processes with all departments, planners can support an aging population. Indeed an interdisciplinary approach is needed to plan for the aging population to integrate the knowledge base from a variety of disciplines. To begin with social, community and land use planners need to communicate with each other to push the limits of their traditional boundaries. This multidisciplinary collaborative spirit inclusive of older people themselves offers fertile ground for creative and innovative ideas.

Some professionals are already advocating a more holistic approach to planning for the senior population embracing the aged within the context of the physical and social environment (Clarke Scott,<sup>11</sup> 1999; Johnston, 1991). Progressive sources in the aging literature recognize the need to develop alternative approaches that create sustainable environments for 'successful' aging and the integration of the elderly within communities (Clarke Scott, 1999; Rodabough, 1994; Mumford (1956), in Hancock 1976). In light of the additional global environmental factors such as climate change, overpopulation and urbanization, there is a real need for a renewed interest in the environmental implications of housing or shelter. This priority is reflected in the more recent planning strategies of complete communities and new urbanism as well as the eco-city and eco-village planning models which integrate human needs with the environmental and economic imperatives (Langdon, 1999; Roseland, 1997). From a holistic community development perspective as well as from a mental and physical health perspective, it is incumbent on planners and policy makers to consider the older generation in designing urban communities.

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<sup>11</sup> Mary Anne Clark Scott is the editor of the proceedings from a conference sponsored by the Gerontology research centre in 1997 on Aging in Place. The emphasis of the conference was on an inclusionary approach to planning for aging rather than an exclusionary approach.

## **Chapter 6 Synthesis: Towards Sustainability**

### **6.1 Introduction**

In planning practice and in the study of aging there is an accelerating paradigm shift. In planning, the shift is towards a holistic approach that values the ecological, economic and social imperatives equally, whereas in the study of aging the value shift is towards a change in the perception of the older population. Since the sustainability paradigm is inclusive of social principles that support all people in community, the shift in social values for seniors is but one aspect of the holistic sustainability planning approach. The envisioned planning model is inclusive of all communities, and does not marginalize or segregate the older population from mainstream society.

This inquiry identified patterns and themes and their relationships creating explanations to make some sense of reality. This chapter is a synthesis of ecological and sustainability planning and the values, needs and preferences of an aging population for a vision towards a more sustainable future. As Sandercock (1998) observes different maps of knowledge prefigure many different futures. This section offers a vision of what the future for an aging population might look like from a postmodern ecocentric perspective. In order to crystallize the vision of an older population enjoying a good quality of life while at the same time respecting the ecological systems, critical, feminist and even some utopian lenses underwrite this approach. Following are some suggestions of changes that require an inclusive holistic way of knowing to allow for the integration of the older population within the context of the social structure and community spaces. The first theme revolves around the philosophical basis for understanding aging and the imperative of furthering an alternative perspective through education and a structural change in life roles. The second theme focuses on the community level and the intersection between sustainable principles and the community needs of an aging population. The third area of change focuses more specifically on alternative housing and design practices that support the move towards sustaining a community for the long-term and are applicable to older adults as well as beneficial to the whole community.

## 6.2 Paradigm Shift

A paradigm can be defined as a

*“set of interrelated assumptions about the social world which provides a philosophical and conceptual framework for the organized study of that world”*

(Kuhn (1962), in Filstead 1979).

The philosophical stance that supports the traditional value system leading to the paternalistic and patronizing way in which older people have been treated is no longer valid. It is time for a change in worldview, a paradigm shift not only in assumptions about the ecological systems and our relationship to them but also the social systems and our relationship to each other including the older members of society. The traditional knowledge map and its concomitant interpretations have limited the possibilities for integrating older adults within the fabric of society. These traditional values have given rise to ageism<sup>12</sup> which is prejudice based on age and refers to a societal pattern of stereotypes and attitudes that devalue aging and older people (Novak, 1995; National Advisory Council on Aging, 1995a).

Although there are many more overt prejudices in our society such as racism and sexism, which are openly recognized and have been addressed to some extent, ageism is a prejudice that is more insidious to the point of being normalized. The normalization of this stereotyping allows society to deny its existence. Consequently the social structures and policy directions are not considered abnormal or biased rather they are institutionalized and reified. This subtle bias also gives society permission to distance itself from older people by treating them as a specialized group. Stereotypical representations of older people still persist in subtle ways. Whereas the traditional stereotype represented old people as passive and weak, albeit kind and wise, a new more malicious version perceives older adults as ‘whoopies,’ well off older people who are living off the State at the expense of younger cohorts (National Advisory Council on Aging, 1995a). Such stereotypes are not only demeaning but they are divisive and lead to discord and segregation in the community.

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<sup>12</sup> Mark Novak, 1995, Robert Butler (1977) devised this term as referring to prejudice based on age defining it as “a deep-seated uneasiness on the part of the young and middle-aged---a personal revulsion to and distaste for growing old.”

However, the aging population itself is changing. Even though old age is still seen as a time of physical and mental frailty characterized by disability and dependency, people 65 and over are predominantly healthy, active and independent. They can no longer be defined by age alone, rather by their health status and life style. Although stereotypes and negative attitudes have become less prevalent because they are no longer politically correct, many of the services and facilities provided specifically for older seniors still tend to be patronizing and care oriented (National Advisory Council on Aging, 1995a). The predominating social values underlying policy planning still tend to be oriented to the social service approach which is authoritarian and top down (Heumann and Boldy, 1993; Moody, 1976). Purpose built housing for seniors can be considered a covert expression of embedded ageism (Johnston, 1991).

Even the 'Aging in Place' policy approach is still predominantly addressed from this perspective. The overriding goal of policy development seemingly is to determine the interrelationships between a complex array of structural and policy variables in order to determine a correct formula. The major impetus of this policy approach has been economically inspired even though there are many positive social implications in supporting and assisting people to remain in their homes. The ecological ramifications of aging in place, however, are not part of this frame of reference. From a critical perspective the concept of aging in place is an organic process and not something that can be imposed with a long list of policies. It can be viewed as an evolutionary process that is ingrained in the community from the onset. Communities grow and develop according to principles and practices that encourage people to remain in their homes throughout the life cycle.

Fortunately there is a movement afoot towards social reform questioning not only age discrimination, but also the values of society as a whole. It is acknowledged that before society can embrace and intuitively care for the older population it needs to become more compassionate and cooperative (Heumann and Boldy, 1993; CMHC, 1989; Mumford (1956), in Hancock 1987). Clearly a new set of values, as relevant to the rest of society as

they are to the older population, need to be embedded in planning processes (Sandercock, 1998; Clarke Scott, 1999; Johnston, 1991). Mumford (1956) posits that society will not care for the older population on the scale that they require until it is ready to:

*“put into the rebuilding of human communities something like the zeal, the energy, the skill, the dedication [given] to the monomaniac production of motor cars and super-highways.”*

Only through such a shift in values to one commensurate with Moody's (1976) participation mode and the self-actualization mode will older adults become empowered members in the community. Since a person's age has little bearing on one's perception of the outside world, but rather the outside world has socially constructed aging which older people themselves have internalized and perpetuated, older people need to embrace the opportunities this stage of their life offers (Ward et al., 1988). Hence, not just society but also older adults themselves must shift their attitudes about aging and the role of older people in society.

### **6.2.1 Education**

Education is one way to bring about attitudinal changes. Not only does the public need education about population aging but also older people need to be made aware of the possibilities and opportunities awaiting them in the second half of their life. By raising awareness in both society and the older population within it, many of the socially constructed stereotypes can be demystified. To begin with, in terms of the political and structural environment, transdisciplinary cross fertilization of knowledge between different planning and institutional departments will broaden awareness about older adults within mainstream communities thus illuminating aging in a positive light. Many of the people involved in building and providing housing are not aware of the needs of an aging population. Nor are they conversant with the principles of building sustainably. One source observes that housing professionals are quite willing to develop and build alternative housing models for older adults if they have more education and a better understanding about the needs and preferences of seniors. And of course the options must be financially attractive to the builder as well (Earhart, 1999).

One innovative way to ensure that the aging image has a rebirth is for older adults to become integral members of research teams studying population aging. Involving older adults in the process of studying and learning about themselves will legitimize new forms of knowledge while at the same time build capacity within the older age group to bring about change in the outdated social construct around aging. Older adults who have gained wisdom through their life experiences are in a position to reframe research foci and priorities. Such research projects are more positively focussed and often relate to well-aging and creative and meaningful aging that is both empowering and enriching (Glanz and Neikrug, 1997). Some theorists agree that including older citizens in the process of learning about themselves has far reaching consequences with potential to change the values of an aging population from both within and without (Glanz and Neikrug, 1997; Marshall, 1991). Marshall, a social gerontologist, readily admits that his discipline is not special "in having insight into change" (Marshall, 1991: 72). Moreover, he notes that since seniors have always been the repository of knowledge gained by his discipline, they in fact have a valuable role to play in changing societal values. Qualitative research methods, using critical and feminist approaches incorporating ways of knowing unique to the older population, could add a completely new dimension to the knowledge base on aging.

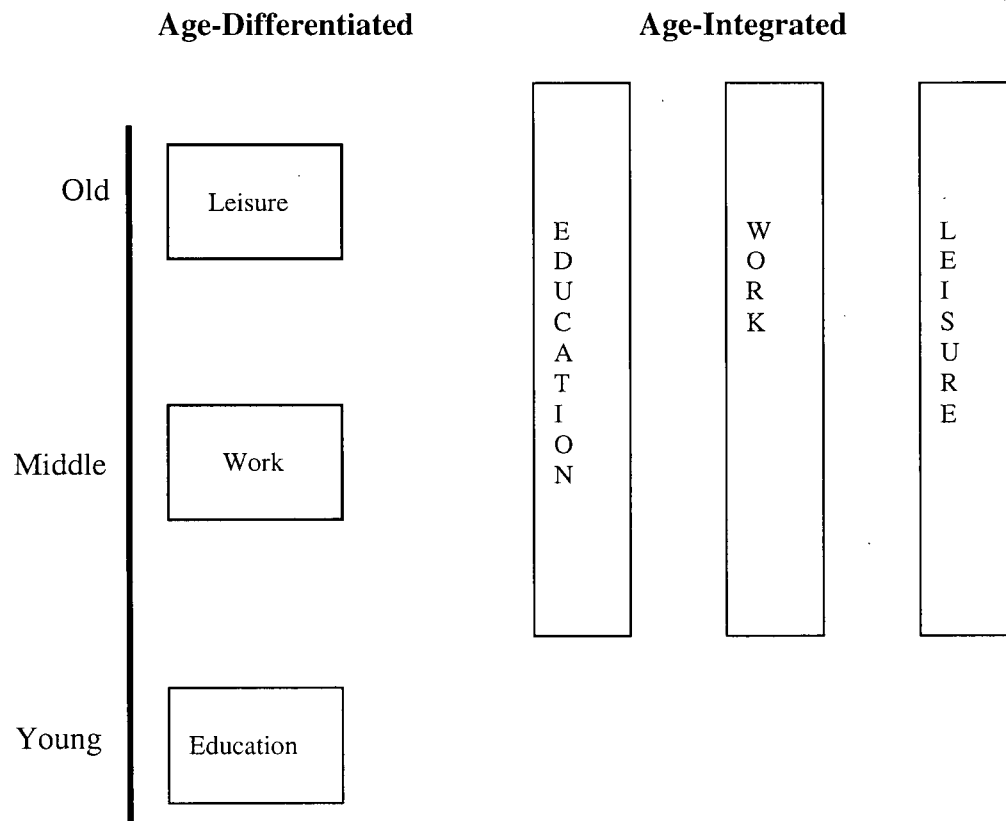
The National Advisory Council on Aging (1995a) observes that government policy reform has assisted in changing public perception and attitudes. To this end the Canadian government has involved seniors in planning and developing programs and policies (National Advisory Council on Aging, 1995a). Indeed, at the local level the recommendations in a report for the City of Vancouver about its aging population focussed only on the social values underlying planning for this population. Specifically mentioned was the necessity for planning processes to be inclusive of diverse members in society who are to be included at all stages of the planning process, from concept to implementation. Moreover, the report stressed the importance of professionals working with people at the neighbourhood level recognizing not only their needs but also the social, economic and environmental context and their interconnectedness (City of Vancouver, 1994).



### **6.2.2 Age-Differentiation versus Age-Integration.**

Structural societal changes in the perceived roles, rights and responsibilities of older adults also need revision. Due to an increased life span, retirement can now extend to as much as one third of an adult's lifetime providing many opportunities for new interests and pursuits. Hence there is a need for a transformation of the traditional social structures marking the life course stages. Such changes in social structures with less defined demarcations of life course stages will revolutionize the ways of categorizing people regardless of their age. Riley and Riley (1994) posit that there is a structural lag in policy addressing changes dealing with unprecedented longevity and the new roles. The historical age-differentiated social structure no longer valid needs to be replaced with an age-integrated model reflecting a reality where education, employment and leisure is more integrated throughout the life span. The traditional model segregating education, work and leisure into three definite life stages is outdated as many people no longer fit the traditional image of old age. Riley and Riley (1994) provide a heuristic diagram that depicts the differences between the traditional age-segregated roles and the alternative age-integrated roles emphasizing the distinctions with broad structural generalizations (Figure 6.1). Moving towards this "age irrelevant" model will definitely help to diffuse many of the myths about population aging.

**Figure 6.1 Heuristic Depictions of Age Structures**



(Riley and Riley, 1994:12).

This new model which does not discriminate against age reflects a reality where people of all ages have roles in work, leisure and education. This new structure could change the life course of not only the older population but also the younger population who are overloaded with many roles over a short period of time. It might even lead to an integrated life structure for all ages allowing people to intersperse periods of work with periods of leisure and education. Such structural changes would also allow time to care for older friends or relatives who need support.

Evidence exists that social change is possible. Although social structures appear to be set in stone, there are already many examples of structural changes in the older population. Many older adults are returning to school, starting new career paths, working part time or taking up new interests, hobbies and activities. In the workplace, part-time employment,

flextime and sabbaticals are becoming more common place allowing people to work to an older age. Some companies' programs for "unretirement" provide part time employment and retraining for new occupations (Riley and Riley, 1994). All these interventions are working towards developing new and more flexible roles. This opens the doors for many possibilities and options not only for the present older adults but also for the generations coming after them. Reframing the concept of age will deflate ageism while at the same time inflate the value of the aged by embracing their wisdom and contributions to society in unique and diverse ways. Knowledge is grounded in the paradigm used to access it. A different frame of reference for the roles of seniors will result in a new set of beliefs and values about seniors and how they fit within the life course.

### **6.3 Population Aging: Towards a Sustainable Future**

Another change required to move towards a more sustainable future is in lifestyle. Although there is no endpoint for the quest towards a more livable, socially just community, incremental successes will lead to more sustainable living. Many sustainability planning principles can be applied to integrate the older population within the community to meet the dual objectives of improving quality of life and reducing human impact on the earth. Postmodernist planning should be ecocentric and socially responsive.

Eco-cities, eco-villages, and eco-development are all terms used to describe a developmental model embracing an ecological ethic at the community and urban level (Gibson et al., 1997). Roseland (1997) asserts that every community can be 'ecotized' or retrofitted to move towards sustainability. Sustainable communities embody to some degree the following four characteristics, economic security, ecological integrity, quality of life, and empowerment with responsibility. As these characteristics are attributed to ideals of older people, this age group, at least in theory, may be more sustainable by their very nature. Although there are numerous checklists suggesting criteria for more sustainable living (Trainer, 1998; Newman, 1998), ten broad principles of urban ecology supporting the social ecology perspective suggest criteria for a postmodernist approach to developing communities that are integrative and inclusive of all community members (Roseland, 1997). These ten principles are used as the basis for synthesizing the needs of

an aging population with the needs for a sustainable community (See Appendix H for modified principles of an Ecological Community). In order to implement the physical changes assisting older adults to maintain their independence and autonomy alterations must be made to traditional land use structures and their concomitant building codes and standards.

### **6.3.1 Land Use Regulations**

The basis for developing the physical space for a sustainable community supportive of an aging population is found in land use policies. To preserve ecological integrity, significant changes in urban zoning and development regulations would ensure more intensive development and compact mixed land use. The urban reform movement has been characterized by urban design concepts with catchy titles like “Traditional New Development,” “New Urbanism,” “Neo-Traditional Town Planning,” “Pedestrian Pockets” and “Complete Communities,” all referring to alternative approaches to traditional housing and neighbourhood developments (Roseland, 1997; Kunstler, 1996; Taylor, 1994; Calthorpe, 1993; Bookout, 1992). The key element in all these community planning designs that has the potential of reducing human impact on the environment is the focus of integrating the design principles with public transportation systems. Automobile dependency is reduced through mixed land use that allows residential spaces to be interspersed with commercial and even industrial areas so that ideally people can work and live in the same community. However, if the transportation systems are not convenient and accessible, and not used as alternatives to the automobile, these communities will not be effective in significantly reducing the ecological footprint.

Many features of this development model support the aging in place concept. To begin with reduced lot sizes and smaller houses, characteristic of these compact community designs, make it easier for people to maintain their homes as they age. The site planning features include shallow setbacks placing the house in the front of the yard. This design model gives the sense of a cohesive and close knit community providing a feeling of safety and security. The housing designs also feature front porches, and windows and doors facing onto the street making these homes more amenable to community involvement and interaction with friends and neighbours. Since the design features

support more people watching the streets these communities are considered safer places to live. For many older people, especially those people with limited mobility, their visual field or 'surveillance zone', the area they can see from their windows, is a determinant of well-being (Rowles, 1987). By watching street activities through their windows, people can vicariously take part in the community outside their doors. Hence houses that are designed to have a broad view of the street are more livable for people who cannot or do not venture out often.

Regulatory changes to site development are also required to allow for narrower streets and roads that are more conducive to pedestrian traffic. Traffic calming measures such as traffic islands and speed bumps slowing the traffic add to the ambience and ensure that public spaces are more pedestrian safe. Circulation patterns supporting pedestrian and other non-motorized modes of travel, distinctly separate from busy roadways, offer safe spaces for older people to navigate as they access community facilities and services. Unobstructed non-slippery sidewalks all on one level with curb ramps allow older people with or without mobility aids to safely access the community. Street furniture, in particular benches strategically placed, give people an opportunity to rest or even visit as they go about their affairs. Central parks and green areas within local communities make available public spaces for people of all ages to enjoy leisure activities. Also integral to a community and conducive to pedestrian and neighbourhood interaction are public areas available for gardening, an important leisure and therapeutic activity for everyone, including older adults. Compact development also ensures that the necessary facilities such as markets and food stores are near to hand. As well, health care, physician's clinics and alternative health practitioners are close to residential units. These communities support higher densities which in turn encourage stores, facilities and services to locate in the immediate vicinity because there is a larger market for their goods and services (Kunstler, 1996, See Appendix G for an example of a very high density community in New York City).

In this alternative development model, the physical structures and roadways are built to human scale, not automobile scale, and are accessible to everyone including people who

have mobility limitations. This is also reflected in community facilities such as libraries, churches and community centres that are designed for flexibility and diversity so that a variety of activities can take place in the same building and people of all ages can coexist. Community workshop facilities provide opportunities for people of all ages to take up hobbies as well as share their skills and expertise with each other. Older people who have many life skills may use such facilities for either their work or their hobbies (Mumford (1956), in Hancock 1987). Work spaces for home based businesses are also integrated into the housing designs providing places for older adults who are working part-time or full-time.

Community education programs raising awareness about the local environment and bioregion encourage participation and activism supporting sustainable living principles. Educational programs focussing on local pollution and contamination and how to ameliorate the effects of urban environmental damage, especially the damaged natural water courses, are imperative to ecotizing an urban environment (Roseland, 1997). Such education programs together with the dissemination of information about reducing consumption of material goods and non-renewable resources can be instrumental in changing people's values and lifestyle. In addition, these community activities bring together all age groups to work towards developing a community identity. Many of the structural changes are possible through a renewed community focus that is supported by land use reforms. Such a restructured community offers the type of community and housing configurations that supports aging in place.

### **6.3.2 Building Codes and Standards**

The change in land use patterns together with a change in building codes and standards allows for mixed land use that supports alternative housing styles conducive to aging in place. New standards would be supportive of multi-family use by extended family systems to live in what is considered single family housing. Such new standards also allow the growing numbers of older adults living with their offspring, and the adult child returnees moving back with their parents, to have suites in single family housing. In addition, alternative living arrangements can be provided through congregate housing and shared accommodations supporting larger numbers of seniors in one housing unit.

Although there are drawbacks to such arrangements and these housing options are not popular, they are options that may be especially attractive to single people who want affordable arrangements and companionship. Moreover, as people become more cognizant of the environmental ramifications of urban sprawl, more people may be willing to consider these more sustainable models.

Mixed land use regulations also allow for housing units and commercial spaces in the same building. In these cases the commercial establishments provide services and amenities for people occupying the living units. Establishments such as restaurants, banks, pharmacies as well as barbers and hairdressers, and a wide variety of health and medical practitioners, are just a few examples of the kind of services that may be located in the commercial units. Alternative land use regulations allowing infill and additional suites also increase the urban density and also provide alternative housing opportunities for older people. Within this built environment can be incorporated a variety of housing options, both low cost and market to meet a range of needs throughout the community and fit within the scale and framework of a complete community.

For older people who require care in addition to housing, small scale homes for ten to twelve people that are accessible by their friends and family can be unobtrusively integrated within such a community fabric (Mumford (1956), in Hancock, 1987). This concept supports the aging in place priority since people who require care can remain in familiar surroundings. Thus older people can stay in their communities and continue to access the services and amenities that they know well. Even for people with dementia, small-scale group homes in the community, although customized to protect the residents, are an integral part of the community fabric. Again, offering a small scale community facility that is not an institution but rather fits within the community scale allows people to remain in neighbourhoods where they recognize familiar landmarks, and their neighbours or family are close to hand (Johansson, 1990). Community medical services that are small scale also fit within the compact design need to be geared more towards non-acute service requirements of seniors who have more chronic and long-term disabling conditions than acute illnesses.

### 6.3.3 Sustainable Housing Options

Since a high proportion of the older population is female, this section highlights some housing examples providing women with the social support they need in a safe environment. Women are noted for having stronger community ties and social networks making them somewhat more resilient in the face of adversity, even though their economic status often limits choices. One way that allows older women to be proactive in managing their lives while at the same time maintain their independence is by pooling their human and financial resources with other women. Collaborative housing can be in the form of shared housing, cluster housing or cohousing communities. One example of a collaborative housing model is the housing co-operative. The last co-operative that was supported by federal funding was the Older Women's Network (OWN), conceptualized by six women, which opened a 142 unit building in downtown Toronto in 1997 (Brenton, 1999). Although this housing complex is not just for older women, women maintain many of the units. Here women have affordable housing that secures their independence and autonomy in the community and at the same time supports a sustainable lifestyle. This co-operative is centrally located near facilities and services that can be accessed by walking or public transit. As a mixed-income facility, it also provides accommodation for some low income older people (Brenton, 1999). Although this project is one of the last as federal funding has dried up, this model is one example of how collaboration of resources can ensure that older people maintain autonomy and independence in a supportive environment. Even though no more co-operatives are being built with federal funding, the Co-operative Housing Federation of Canada is addressing issues related to helping seniors-only co-operatives remain viable community housing options (Co-operative Housing Federation of Canada, 2000).

Cohousing is another alternative housing option based on the collaborative approach that offers older men and women security, social support and social interaction (See Appendix E for a discussion on Cohousing). This is a European model that originated in Denmark although it is also popular with the older population in the Netherlands where many cohousing developments have not only retired residents but also residents who are employed (Brenton, 1999). The wide variety of skills and resources that people bring to



these communities allows for greater community independence as they share and reciprocate their skills and knowledge. In this way the residents can provide for their own housing maintenance and some personal care. This is a lifestyle option more than an affordable housing option meeting the needs of people who want social interaction and mutual support on a regular basis. It is again an alternative option suitable for older people because it meets their needs for security, safety, autonomy and independence while at the same time allows them to enjoy the companionship of other cohousing members. At the same time, this is a more ecologically conscious way of living as each person requires less physical space. As well, many of the cohousing projects incorporate in their planning processes sustainable principles for managing and maintaining the project (Brenton, 1999).

These two models exemplify a few of the sustainability principles, in particular social integration and ecological integrity. The potential for social support can mean a better quality of life especially for older people who have a greater need for interdependence. At the same time, the design features that support increased urban density while simultaneously reduce the consumption of energy and material resources can lead to a reduced per person ecological footprint

#### **6.3.4 Universal and Flexible Housing Design**

For the long-range sustainable society, the best housing for an aging population is housing that is also appropriate for other age groups. This is housing that is adaptable over the life cycle, not specialized housing for different age groups as the ecological burden of housing designed for specific age groups is greater. Numerous sources suggest that all new housing should be built to universal design specifications to meet life cycle needs (Macdonald, 1999; Pynoos, 1992; Gray, 1991). This is a concept, however, that is not popular in a society that prides itself in having democratic private property rights. Nevertheless, this is an idea that could reduce the amount of energy throughput required in moving, retrofitting, or tearing down and rebuilding. This means that housing needs to be well designed and accessible in the first place, which in actual fact has the potential of making it more livable for everyone.

The universal design strategies suggested in the literature are not onerous. Basically the suggestions and guidelines are very simple and only make common sense. For instance, Denmark's guidelines suggest that all new and renovated houses have a bedroom and bathroom on the main level (Brink, 1990). In the United States some principles of universal housing contained in the Fair Housing Act require that buildings with more than four units are accessible and have provisions for adding grab bars. However, this Act affects only new multi-unit buildings and not old units nor single-family homes (Nielsen, 1999; Pynoos, 1992). The primary features of universal housing are entrances, hallways, bathrooms and kitchens that are large enough to be wheelchair accessible. Some other features include single lever faucets and door handles, non-slip flooring, easy to reach temperature controls, light switches and electrical outlets, antiscald devices and grab bars.<sup>13</sup> While some special design features are incorporated in the construction stage, other features can be added as needed if the original structure is built to allow for them. For instance bathroom walls where grab bars may be required in the future are reinforced during the construction stage. Changes in building codes incorporating universal housing design features could reduce future financial and material costs further facilitating aging in place.

#### **6.4 Final Comments**

The alternative planning model is meant to draw people together through urban design that is socially and environmentally supportive. Ecologically sensitive community designs also integrate the natural systems taking into account streams, soils, water tables and the natural vegetation. Canada Mortgage and Housing has a wealth of information about how to plan and develop sustainably (CMHC, 1993a; 1993b).<sup>14</sup> The incorporation of even some of these principles can reduce the ecological footprint while at the same time increase well-being as measured by the Genuine Progress Indicator (GPI). Comparisons between traditional development patterns and this approach have found a

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<sup>13</sup> Canada Mortgage and Housing has developed a design workbook with design features that can be incorporated in housing for seniors, 1992.

<sup>14</sup> Canada Mortgage and Housing Corporation. *Sustainable Residential Developments, Planning, Design and Construction Principles Greening the Grow Home*, Affordable Homes Program School of Architecture, Mc Gill University, September, 1993; *Sustainable Development in Residential Land Use Planning*, Nova Scotia College of Art and Design, Environmental Planning Department, April, 1993; David D'Amour, *Towards An Investigation Of Sustainable Housing*, Ottawa: CMHC Research Division, July 1993.

significant decrease in the amount of infrastructure required and the subsequent reductions in air emissions due to reduced automobile traffic (Taylor, 1994).

The broad-based social ecology principles underlying this vision for a sustainable community is supportive of a holistic approach to population aging. These principles support complex societal variability respecting the needs and preferences of the older population. There are many social imperatives that are accommodated by alternative design models suggested by the new urban design concepts and their implicit social and ecological values. These community design concepts theoretically could meet many of the needs of seniors. Moreover, the personal needs for safety and security as well as the higher level needs of self-actualization and self-determination are supported by this development model. The ability for seniors to remain in situ, whether it is in the same house, neighbourhood or community is possible in communities where housing is flexible and built to meet a range of needs. Implicit in this community planning model is the importance of building and developing housing and facilities that meet people's needs over the life cycle. This design model has merit both for keeping older people integrated within mainstream society as well as conserving material resources by reusing existing housing stock instead of dismantling obsolete housing and rebuilding.

### **6.5 Limitations of Concepts**

Although the rhetoric indicates a congruency between the preferences of older people and the characteristics of compact communities, the reality is that compact communities do not necessarily mean people are living sustainably, nor does it indicate that older people want to live in these areas. There are a number of questions raised by these theories.

#### ***Sustainability***

First of all, we as a society are addicted to the automobile by choice and through necessity, by choice because automobiles are synonymous with a higher living standard, and by necessity because our built environment supports private automobile use. Urban sprawl is characterized by extensive road systems and relatively few efficient and accessible public transportation systems. Thus there is no incentive for people to change their lifetime habits. The coming generations of older people have always had access to private automobiles and it has become a determining factor of well-being and lifestyle.

Therefore unless there is a change in their values and behaviour resulting in a reduction in material and energy consumption concomitant with a transformation in the urban landscape, compact communities may be more livable for older people but they will not be more sustainable. The restructured urban spaces must lead to a reduction in material consumption and production of wastes before there is a significant impact on the biophysical throughput. Although behaviour is difficult to alter, economic incentives to increase the use of alternative transportation and economic disincentives to reduce the reliance on the private automobile are often effective in changing human behaviour. The question remains what will it take to change human consumptive behaviour. Eliminating automobile related subsidies and increasing the price of energy to reflect the actual costs, including the social and environmental costs of automobile use, is one way to bring about behavioural change.

Furthermore, for any significant impact on the environment, the compact community design features and urban sustainability principles must be applied to all communities, not just to pockets of densely populated mixed land use spaces separated by high volume freeways and connector road systems. Compact communities must be connected with reliable and efficient commuter transportation for people to easily access their work, school or recreation facilities. Otherwise there will be no reduction in total energy consumption or air pollution.

### ***Aging in Place***

Generally speaking, the present urban community configuration is not conducive to aging in place, especially if this term refers to staying in your own home. Our suburban communities are characterized by low density housing covering large tracts of land that are not served by public transportation systems. Aging in place in these communities is not only impractical for many older people but also unsustainable. Suburban housing is not built with the older person in mind as houses and yards often become too difficult to maintain as people age. Aging in place is therefore not a sustainable option if it requires people to maintain homes that do not meet their present needs. The question remains as to how we encourage these older people to relocate to smaller more appropriate accommodation.

Older people's sense of well-being does not relate to the physical setting of home, rather what that home means to them and their social connections. Thus, aging in place can also refer to moving to optional accommodation in the same community or neighbourhood. Higher density housing options that allow seniors to remain mobile and part of the community are acceptable to older people. Clearly sustainability planning for older people is not just a matter of parachuting them into communities built according to sustainable urban design principles. The complexity of the social and environmental issues raises many questions that are not answered in this theoretical overview.

However, since the focus of older people changes over time from materialism to spiritualism and greater introspection, the aging population may well be the segment of society that forges the way towards a simpler lifestyle. As this population group increases in size, it is reasonable to expect more people will tend towards a simpler lifestyle.

#### **6.6 Limitations of Research**

As this study is a synthesis of the respective theoretical approaches of both planning and the study of aging, it offers only a broad overview of the issues related to planning more sustainably for population aging. There is no in-depth analysis of primary sources regarding the scientific worldview and the postmodernist paradigm, only analyses of arguments secondary sources have made to bolster their perspectives and support this thesis. This synthesis only offers another frame of reference for the population aging dilemma making sweeping suggestions for the development of more inclusive sustainable communities supporting population aging.

Moreover, the concepts and themes raised in this thesis have not been examined in light of community or professional input, but again only from the perspective of the predominating themes found in secondary sources about population aging, aging, health and housing, and sustainable urban planning. Just how the critical approaches and the concomitant planning models can be operationalized at the community level is not examined.

## **6.7 Further Research**

Further research is required to ascertain the practicalities of these themes and the opportunities and barriers that professionals and older adults in the community perceive in the implementation of the suggestions in this chapter. Pilot projects and case studies would aid in identifying the needs and preferences of older people and their quality of life in communities that embody some or many of the principles inherent in communities that are more sustainable. Such research could identify the relationship between quality of life characterized by subjective issues such as independence, interdependence, autonomy and subjective health, and objective health factors and community features. The community factors again could be divided into objective and subjective attributes, the objective features being the community design and the subjective the values of the services and facilities that are easily accessible. The West end of downtown Vancouver would be an interesting site to examine the quality of life of older people and younger people with respect to their perceptions of the possibilities for aging in place. As this is a community with a multigenerational population in one of the densest areas in the lower mainland, it would be a good case to examine the veracity of the literature on population aging, quality of life and sustainable living.

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## **Appendices**

Appendix A---Life Sustaining Resources in Jeopardy

Appendix B---The Meaning of Housing According to Statistics Canada

Appendix C---Competence Press Model

Appendix D---Housing Options

Appendix E---Cohousing

Appendix F---Aging in Place

Appendix G---High Density Community

Appendix H---Modified Principles of Ecological Community.



## Appendix A

### Life Sustaining Resources in Jeopardy

It is an illusion that there is an endless supply of potable water in the world (Postel, 2000). Agriculture and industry followed closely by cities are the greatest consumers of water making it a scarce commodity in many communities. Equally as disturbing is that waterborne illnesses are becoming prevalent with industrial, agricultural and human disturbances cited as the primary sources of disease responsible for up to 80% of illnesses in the U.S. (Coffel, 1991; Postel, 1992). In urban areas urban surface runoff directly attributable to the automobile is a toxic cocktail equally as pernicious as raw sewage (Tourbier, 1994). Consumption habits and lifestyle changes will become an imperative as the water supply per person shrinks worldwide.

This water crisis in turn impacts food as every ton of grain produced requires one thousand tons of water. In short, reduction in water supply means a reduction in food supply. Aquifer overpumping is already extracting more water than is naturally replenished through underground sources leading researchers to estimate that 489 million people are fed by harvests that are unsustainable in the long-term (Postel, 2000). In the last fifty years grainland area per person has decreased by one half and is predicted to continue decreasing as industrialization, land degradation and urbanization continue to erode agricultural lands. It is expected that by 2020, the per capita irrigated land area will be about 17-28 % below the highest level in 1978 (Postel, 2000). These trends have implications for everyone on this planet regardless of where they live. They are becoming more alarming considering that as food production decreases the population is growing.

Air quality and climate change are given a higher profile in the developing world than some of the other environmental concerns as its effect is indiscriminant of boundaries. Industry and automobiles are the primary contributing factors to climate change and steadily declining air quality. A concerted effort to reduce fossil fuel use and developing alternative less polluting energy sources such as wind power and solar cells would reduce the concomitant side effects of carbon emissions such as acid rain (Brown et al., 2000, 18).<sup>15</sup>

### Cumulative Effects

Even more disconcerting are the cumulative effects of these detrimental ecological trends. They do not occur in isolation, but rather they act synergistically implicating the entire system of which they are a part, regardless of geographical location. New found strains of viruses, a consequence of environmental changes are being compared to the epidemics of the 19<sup>th</sup> century (Epstein, 1995). Some new virus strains in Latin America have been transmitted by rodents to areas where climate changes have altered land use patterns. Non-immune migrant workers from other areas are attracted to these areas.

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<sup>15</sup> Some of the Scandinavian countries, the Netherlands, Germany and the United Kingdom have developed and are using alternative sources of energy but progress is slow. They have also started restructuring their tax system, raising taxes on environmentally destructive activities while reducing them on income and wages.

## **Appendix B**

### **The Meaning of Housing According to Statistics Canada**

When looking at the statistics for housing and older people it is important to define the term 'housing'. Statistics Canada uses the term housing to reference the many types of dwellings that are personal living spaces. The only people, for statistical purposes, this definition does not capture are the homeless. These dwellings are divided into categories, private and collective (Baxter and Ramlo, 1999). Private dwellings, regardless of size or shape are considered to be those dwellings where people make a choice to live and choose who they wish to live with, whether family or friends. Statistics Canada specifically stipulates that these dwellings must have completely private living quarter space whose entrance and exit does not pass through any other living space. The term private dwellings typically refers to all dwellings that are not considered collective dwellings described below. Private dwellings include tenants and owners in strata or fee simple developments on leased land or band housing, ground oriented or multi-unit, high rise or low-rise.

On the other hand, collective living quarters are those that are shared and although a private choice may have been made to share the space, the choice is based on the physical structure containing a specific group of people. Facility sharing is usually not by choice either but rather by need, such as a need to enter a hospital and care facility (Baxter and Ramlo, 1999). Collective dwellings only house a small proportion of the population and encompass a wide variety of dwelling uses. Among these are the institutions such as hospitals and care homes, and residences for the elderly and chronically ill. Two other categories of collective dwellings include the service collective inclusive of all the commercial establishments such as hotels, lodges and rooming houses, and the communal and other non-institutional collective dwellings including religious, camps and intentional communities such as the Hutterite colonies (Baxter and Ramlo, 1999).

## Appendix C

### Lawton and Nahemow's Competence Press Model

A plausible theory underlying housing research for seniors is the Ecological model of the person environment interface (Lawton, 1998: 3; Doyle, 1994: 33). Although there are many renditions of theoretical frameworks on environment and aging, suffice it to say that Lawton's theory provides a basis for consideration when planning for seniors' housing. Briefly it purports that an older person's well-being is related to the relationship between the person's level of competency and the press or demand of the immediate environment on them. Simply said this model asserts that environmental press and individual competence interact in determining the person's comfort level or ability to cope in the environment in which they reside (Lawton, 1998). Since the 1970s, Lawton's theory has been enhanced through numerous iterations recognizing that behaviour is not only a function of the interaction between the person and the environment, but it is also dependent on personal characteristics such as temperament and personality. Moreover, it is influenced by the individual responses to the interaction experiences themselves (Lawton, 1998). The environment is seen as a good entry point for influencing quality of life meaning that positive aspects can be built into the environment to improve the person's experience.

This conceptual model has implications for housing research and policy planning for the aged. In designing and planning housing for the older population the target group and their functional abilities need to be considered. Ideally older people need an environment in which they flourish, one that challenges their abilities to keep them positively motivated to cope with their environment. In contrast, an environment that is too challenging for their abilities leads to negative affect and maladaptive behaviour. Small mismatches between competence and press are associated with positive outcomes, and larger mismatches associated with negative outcomes. The effects of excess press and the deficiency of press is hypothesized to be mediated by adaptation levels and incoming environmental demand (Lawton, 1998: 3)

## **Appendix D**

### **Housing Options**

Although there are many housing and care options for older people, they do not all provide for the differences in lifestyles, values, attitudes, personalities, and physical limitations. Consequently, nearly every choice necessitates people to compromise some of their control, independence or privacy (See Appendix D for a description of some housing options). Economic limitations alone significantly affect the options for lifestyle choices made in latter years (Golant, 1992). McPherson (1998) provides an illustration of a housing typology according to an independence gradient and a segregation gradient that is typical in North America as shown in the following figure (McPherson, 1998). The age-integrated independent housing options are characterized by either rented or owner occupied dwellings found within the community. The next section going across the independence continuum to the more dependent options include rooming houses and congregate housing. The age-segregated options ranging from the independent to the more dependent options include communal housing, apartment blocks and retirement communities at the independent end of the scale to long term care at the dependent end of the scale.

## A Typology of Housing Alternatives for the Elderly

Age-Integrated	
<ul style="list-style-type: none"> <li>• Granny Flat</li> <li>• Home</li> <li>• Apartment</li> <li>• Condominium</li> <li>• Public Housing</li> <li>• Trailer Home</li> <li>• Home Sharing</li> <li>• SRO Hotel</li> </ul>	<ul style="list-style-type: none"> <li>• Rooming House</li> <li>• Age-Integrated Congregate Housing</li> </ul>
Independent Non institutionalized	Dependent Institutionalized
<ul style="list-style-type: none"> <li>• SRO Hotel</li> <li>• Trailer Home</li> <li>• Communal Housing</li> <li>• Low Rent Apartment For Seniors</li> <li>• Retirement Community</li> </ul>	<ul style="list-style-type: none"> <li>• Age-Segregated Congregate Housing</li> <li>• Retirement Hotel</li> <li>• Home for the Elderly                             <ul style="list-style-type: none"> <li>• Nursing Home                                     <ul style="list-style-type: none"> <li>• Long-term care</li> </ul> </li> </ul> </li> </ul>
Age-Segregated	

(McPherson, 1998:173)

### Housing Typologies

Housing designed for Seniors (CMHC, 1991b; Ministry of Health and Ministry Responsible for Seniors, 1999)

There are an increasing variety of housing options designed for seniors. Such housing appropriate for seniors can be divided into two groups, conventional housing and residential options especially designed for seniors. Although some type of seniors housing exists in most communities, they are not all found in every community, especially the smaller rural communities where there is a smaller housing and care option package. The following section describes some of these options.

**Sheltered Housing (Great Britain)**

This housing model that is purpose built has its roots in Great Britain and is now found in British Columbia. In Britain this was initially government sponsored housing which has more recently also become a for-profit model. There are two categories of sheltered housing in Britain. The first one consists of purpose built self-contained flats or bungalows linked with an alarm system and a warden who responds and supports emotionally, physically, and administratively. This model however usually does not have any common area. The other type is dissimilar from the foregoing in that it has linked corridors and common spaces such as a common room, laundry and maybe even a guest room. Some of the units are retrofitted for the disabled allowing wheelchair access. Any other supportive help is accessed from the community. These developments contain between 20-50 suites. They are a suitable option for those people who wish to remain in the community, however, want the added security offered by this housing form. Tinker (1989) suggests sheltered housing was a model of the 1960s and 1970s and 'staying put' or aging in place came into vogue later in the 1980s (Tinker, 1989; CMHC, 1991a).

The model familiar in British Columbia offers shared supportive housing most often in a large house featuring private rooms for each resident and communal living spaces for 10-12 residents. A housekeeper provides the meals and does the housecleaning as well as provides general support. A larger example of this model is often called a group home. Abbeyfield housing is another example of sheltered housing.

**Congregate Care Housing (American)**

This type of housing is a type of supportive housing usually described as self-contained living units within a housing complex that offers at least one meal a day which is optional in a common dining room. In addition, housekeeping assistance and 24 hour security is provided and sometimes. The size of the units and ancillary services are dependent on the housing project. Although this is the minimum service provided there are some projects that provide three meals a day. Although many residents enter when they are about 80 years old with the intention of remaining the remainder of their lives but realistically many of them have to relocate again. The size of the projects varies from 50 to several hundred units in either new or reconstructed developments.

**Supportive Housing**

Supportive housing is a concept recently developed to integrate the built environment and social environment needs of the seniors. Both CMHC and the British Columbia government have recently documented their policy initiatives for seniors under this rubric. Supportive housing although a very concise and simple concept is complex in its operationalization as it can take on many different forms. The definition simply stated is housing that "combines independent living spaces with support services" (Government of British Columbia, 1999: 1).

**Assisted living**

This is predominantly an American model used to connote supportive housing. It is housing that includes some type of in house services. In the US these housing types may

include personal and intermediate care. It has been transplanted to Canada and one assisted living complex is developing in Victoria (Golant, 2000).

### **Care Facility**

This is a facility where health services and assisted activities of daily living are provided by health care and rehabilitation staff. Residents are provided with a private room or share with one person. The facility has a common dining room and provides activity space. For approval in a publicly funded facility residents must be assessed through the long-term care system. These facilities are all regulated under either the Community Care Facility Act or the Hospital Act. There are residential care settings that do not require licensing due to their size or the type of care provided.

### **Retirement Villages, Communities or Towns**

Leisure oriented retirement communities (LORCs) are purpose built communities attracting a small segment of the older population who are leisure oriented. These communities are evolving as a result of the decline in the work ethic and an increase in the leisure time. These types of housing developments can be viewed from two perspectives, either they are seen as ghettos used to segregate seniors from the working world or they are escaping their responsibilities as participating members of society by enveloping themselves in this hedonistic cocoon (Folts and Streib, 1994). These have been familiar sites in the United States since the 1960s. One American developer is building sites on up to 125 acres providing 1500 independent units, 200 assisted living and 300 nursing units. All these complexes follow much the same model inclusive of some community facilities such as a libraries and computer labs (Adler, 2000).

### **Naturally occurring retirement communities**

Naturally occurring retirement communities (NORCs) are considered those neighbourhoods, apartment buildings or other housing complexes where at least 50 percent of the population are seniors in an age integrated community. Hunt et al. (1994) suggest this is a highly unrecognized housing type that is not planned rather people just move into the community because it meets their personal preferences. Most of the residents in these naturally evolving seniors communities are single women, and the population tends to age in place although people who move in have usually lived in the same general area. The main reason for the evolution of NORCs is the location, their proximity to friends and family, and familiar shopping and health and service facilities. Other reasons include the management services in the complex if living in an apartment or condominium and finally the design of the dwelling (Hunt, 1994).

## Appendix E

### Cohousing

Cohousing is a lifestyle concept originating in Denmark. In the early 1960's a number of Danish families joined forces to create their own neighbourhood. The concept came about because people realized that their individual housing model isolated them from their neighbours (Canadian Cohousing Network, 2000). Recognizing the mutual support that was lost in this lifestyle, they worked together to develop a housing complex that was not only community oriented but also environmentally sensitive and sustainable. The term *Bofællesskab* meaning people who live or reside jointly was the outcome of this experiment. This model was introduced in the United States as Cohousing in 1988. What characterizes this housing model as unique is its two main components, the private owned residence and the extensive common facilities. These may include kitchen, dining area and other facilities like playroom, office space, guest rooms, workshops and laundry facilities. The residents participate in the project from the onset. Thus they are involved in the planning and design process to ensure the opportunities for interaction, and thereafter manage the development and the community. The common area enhances the self-contained homes ensuring a safe environment for mutual support and interaction. The residents develop their own custom designed neighbourhood following sustainable principles to reduce their consumption of energy. Such things as alternative transportation and energy sources, organic gardening, shared resources, and efficient waste and water management are incorporated in the community model (Canadian Cohousing Network, 2000). In the United States there are many examples of this community model but there are no known examples of complexes for seniors. In B.C. there are at least four Cohousing communities, although none are senior specific models either. This community housing model does however lend itself well to serving the needs of older citizens.

There is a Danish example of seniors co-housing started by older people who wanted to remain in touch with friends in a sharing community as they got older (Rodabough, 1994). Their design includes a common house through which everyone has to walk as they enter and depart from the facility. The large windows face onto gardens and walkways that also add to developing relationships and connections with others as well as allow people to watch out for each other. The cooperative spirit and the inclusionary principles support people of all ages. Social and physical support services can also be integrated into a model for seniors.

Although the process of developing cohousing varies from project to project there are a number of defining characteristics of the Danish or North American model.

The inherent participatory process, together with community oriented design that embraces features allowing people to see each other and communicate readily and frequently are basic features of this model. This is accomplished by developing housing in clusters and planning gardens and walkways that support interaction. The large community spaces are also a characteristic as is the importance of each resident being involved in the day-to-day management of the community through consensus. The individual private spaces are generally smaller to allow for larger public areas. This



participatory process allows seniors to make choices about how they want to live as well as to make decisions about the housing design (Rodabough, 1994).

In Toronto, a group of seniors who did not wish to move to the urban centre developed their own community with the help of rezoning and support services (Mawby, 1996). There are many financial and legal barriers to developing cohousing as the traditional lending practices devote funding for private ownership and not cooperative ownership. Moreover, land use regulations traditionally do not cover cooperative ownership. There are, however, a few legal instruments such as land trusts, stewardship agreements and modified condominium agreements that can be employed in developing cohousing (Mawby, 1996).

## Appendix F

### Aging in Place

#### Barriers to aging in place

Although the concept sounds fairly simple, there is a great deal of controversy about what type of assistance people who want to remain in their homes will require. To begin with there are numerous institutional and even structural barriers that complicate this well-meaning strategy. Some of the barriers include planning and land use frameworks that do not support models diverging from traditional land use zoning. The Municipal Act supports a limited range of options and the Continuing Care Act supports another range of options. Legal reform is required to provide for more flexible uses allowing for the development of non-standard housing such as accessory apartments, granny flats, and nonprofit housing for diverse household compositions such as homesharing or family-by-choice (Corke, 1989). Some of the pertinent regulatory barriers to aging in place can be divided into the following three groups.

- Land use regulations - designated land-use zoning not allowing for deviation from the standard options; limitations on the number of unrelated persons that may live together in a single family home; the complexity in changing zoning.
- Building Codes and Standards - standards for non-standard housing are unusual and make it difficult to develop housing that does not fit within the regulatory structure i.e., standards for setbacks, side yards, frontage and open spaces, conversion regulations stipulating a certain age for conversion and imposing onerous standards for unit sizes, number of units, parking and external appearance.
- Political issues - the power that the regulatory framework has to influence the populace biasing it against nontraditional housing in their midst (Corke, 1989: 23).

The major obstacle for aging in place, however, is a legacy of urban planning policy dating back fifty years or more. The urban sprawl and low density housing developments in the suburbs that characterize many communities and neighbourhoods is antithetical to both sustainable living and aging in place. Those lifestyle attributes that once were desirable are the self-same attributes that now make it difficult for many seniors to remain independent in their homes. Many older people are either physically unable to continue caring for their home and/or they do not have the wherewithal to pay for maintenance and upkeep. In addition, the lack of public transportation in these communities, also not a concern when older adults are able to drive, becomes a problem as visual acuity or physical functioning diminishes. The inability to drive causes personal hardship, especially for women, the poor, widows, and rural residents who are most likely to be without access to private or public transportation. Not only does it limit their abilities to care for themselves in terms of buying their personal needs, it also isolates and alienates them from the outside world leading to social deprivation and reduced life satisfaction (McPherson, 1990; Carp, 1979). It is suggested that driving should be considered an activity of daily living in measuring a person's competency level in determining needs (Hare, 1992). On the other hand, as more people fall into this category hopefully the increased demand will motivate development of alternative modes of public transportation similar to the Handy Dart system. Destination shuttle buses and dial-a-ride

services are alternatives that could be implemented offering transportation to shopping facilities or recreational activities (McPherson, 1990). A novel idea is HOV parking which would motivate people to take passengers in order to attain a parking spot in a shopping mall (Hare, 1992). These free taxis looking for passengers would be a boon for elderly people in the suburbs.

The other major deterrent for aging in place, also related to historical development, is the single family housing development scheme. Since many of these homes can accommodate separate apartments, one option for increasing density, and at the same time alleviating financial burden is to develop suites. As the statistics indicate many of the people living in these homes will be single women with increasing disabilities. Hare (1992) suggests that for the older population, the remodeling industry will be almost as important to the quality of life as is health care. Since most of these single-family dwellings were built for able-bodied people, they do not have supportive design features such as grab bars or handrails. Retrofitting and remodeling will be required to accommodate the frail elderly in their homes. Some people who are anticipating aging in place are already remodeling their homes adding first floor master bedrooms, enlarging traffic areas in kitchens and bathrooms, and removing stairs and thresholds ensuring that physical barriers that will hinder mobility in the future are removed (Trim, 1999). There is already a developing business in house renovations as design professionals are working to ensure that older adults can live independently "unencumbered and unfettered" by the nuisances of old age (Trim, 1999: 1). Mark Warner, an architect and gerontologist, has tailored many design features for people with both mental and physical disabilities which he has documented in his book *The complete guide to Alzheimer's-Proofing Your Home* (Trim, 1999).

Maltais (1989) observes, however, that housing adaptations while necessary are not sufficient in supporting the older person to stay in their homes. He notes that a concerted trans-policy support effort is required and a comprehensive policy approach including the participation of the health, housing and service government sectors. Family and community support must also augment the institutional direction. Financial assistance policies must also be provided if older people are to be supported in their homes. Most of all, policy makers must recognize that these policy goals are not simply remedial goals but they are also preventive (Maltais, 1989). More support is also required for family and friends who are assisting in maintaining these elderly people in their residences (Dobkin, 1989). Services available in some communities for frail older people include adult care centres, live-in companion services, and at home life-care. Caregiving support services are also becoming more common.

#### **Supportive policies for aging in place (Dobkin, 1989).**

It has been recognized that there are many strategies that can be implemented to support aging in place.

- Provision of adequate and accessible support services.
- Individualized modification of adaptive technology to compensate for functional limitations of the elderly person and their environment
- Development of innovative financing options and financial assistance

- Institutional support for Home sharing as an option for home owners providing companionship, support and supplementary income.
- Support for accessory apartments such as adding secondary units.
- Support for garden suites or granny flats where a detached unit is added to the site of a single-family home.

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### **Financial Support Strategies**

Financial hardship is one of the greatest hurdles for people who wish to remain in their homes. Some seniors take advantage of the equity older people have in their homes. A number of financial instruments are:

- Deferred payment loans to assist people to remodel their environment
- Property tax deferral programs to defer taxes until the property is sold
- Sale lease-back models allowing homeowners to sell their homes but remain for remainder of their lives as tenants.
- Reverse mortgages allowing seniors to tap their equity obtaining ongoing income or a lump sum (Home Equity Conversion).
- Seniors are starting home businesses for added income, i.e. bed and breakfast (Dobkin, 1989).

## **Appendix G High Density Community**

An interesting example of a very dense community exemplifying the needs of an older person is Kunstler's (1996) description of where his mother lives in New York. He observes that although this environment suits her, it is not for everyone. This example is provided to describe an extreme setting that is supportive of aging in place, but only for people who can afford to live in New York of course. Kunstler (1996) notes that within 300 metres of the seventeen storey residential building where his mother lives can be found: five food markets, a post office, two liquor stores, six ethnic restaurants, three flower shops, four news stands, one bike shop, one video store, a catering establishment, shoe, book and furniture stores, two dry cleaners, three bank branches, a hospital and many offices of chiropractors, therapists, and dentists (Kunstler, 1996: 285). And this is just the beginning as the list just goes on and on. Indeed many of these establishments also deliver. Groceries, meals, and clothes from the cleaners can be delivered to the door. This is a living microcosm of humanity where people have access to their essential needs and innumerable amenities for daily living. Increased densification can support such a range of amenities and facilities in close proximity to each other. For these conveniences alone densification as opposed to sprawl can offer many more amenities, facilities and especially accessible public transportation.

## **Appendix H Modified Principles of Ecological Community.**

1. The imperative to revise land use priorities to create compact, diverse, green, safe, and vital mixed-use communities near transportation facilities;
2. The imperative to direct transportation priorities towards pedestrian, bicycle, cart and other non-motorized vehicles with an emphasis on proximity of access for all;
3. The creation of decent, affordable, safe, convenient, and economically mixed housing for everyone regardless of colour, gender, ability, race or age;
4. The promotion of innovative technology and resource conservation accessible for all ages;
5. The increased awareness of the local environment and bioregion through education, community participation and activism;
6. The promotion of social justice creating opportunities for women of all ages, people of all colours, ethnic backgrounds and abilities;
7. The promotion of local agriculture, urban and community greening and gardening;
8. The promotion of simple living and a reduction in excessive consumption of material goods and non-renewable resources;
9. The promotion of work that is ecologically sensitive economic activity that supports waste and pollution reduction and provides equal employment opportunities for the older population;
10. The imperative to restore damaged urban environments especially the natural water courses that have been disturbed by urban development (Roseland, 1997: 3).