HOUSING THE VERY OLD

Edited by
Gloria M. Gutman
Norman K. Blackie

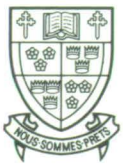

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TABLE OF CONTENTS

FOREWORD

The increasing importance of older persons in the Canadian population is a widely appreciated fact. It is also a fact that the housing situation of elderly persons is very different from that of their younger counterparts. The dwelling unit and the surrounding neighborhood are of greater importance to older persons, because of the greater proportion of time spent at home and in the immediate neighborhood. The reduction in income that usually accompanies retirement, the loss of a spouse, and changes in health and functional ability affect the pattern of needed housing and related services. Older persons are not inclined to make major housing adjustments even when a major change in life occurs. Moving is often an option of last resort.

The patterns of housing consumption by older elderly persons are especially important when consideration is being given to housing policy directions. We know, for example, that the rate of homeownership declines for elderly headed families as age increases. Homeownership increases for males living alone, but remains constant for females living alone. The patterns of those living alone are presumably due to an increasing number of surviving spouses continuing to live in the home they previously occupied with their spouse. This underscores the importance of home maintenance and repair services. However, there is a large shift to rental status on the part of widows as they age relative to the number who remain owner-occupants. Consequently, rental situations take on more meaning for older elderly persons. Further prevailing evidence shows that the proportion of renters living alone is highest for older elderly persons. The most common form of accommodation rented by older elderly persons is in large (five or more units) structures.

In 1985, Sylvia Goldblatt encouraged the editors to organize a workshop on the subject of housing for the very old. It was not until 1987 that a workshop on this theme was held -- in conjunction with the 16th Annual Scientific and Educational Meeting of the Canadian Association on

Gerontology. The chapters that make up this monograph were originally papers presented at that workshop.

The objectives of the editors in producing this monograph were two-fold: first, to present a broad overview of the issues involved in producing housing for the very old, and second, to highlight current housing alternatives that are responsive to the special circumstances of very old persons.

The monograph is divided into five parts. Part I provides a demographic overview of the very old in Canada and a description of key conceptual issues that must be addressed in meeting their housing needs. Part II focuses on design considerations in institutional settings. Part III profiles various housing models for meeting the diverse needs of the very old living in the community. The papers discuss: the small congregate house, the Abbeyfield approach and housing for the hard to house. Part IV highlights transitions in living arrangements and housing needs over time. Included are papers on both naturally occurring and planned retirement communities. The fifth and final part describes the experience of several European countries and their policy implications for Canada.

The editors would like to acknowledge and thank the Canada Mortgage and Housing Corporation for its financial contribution to the workshop and this publication. We especially want to thank the individual authors for the presentations they made at the workshop and for putting their ideas and insights down on paper. We would also like to acknowledge the valuable assistance of Donna Popovic, SFU Gerontology Research Centre Administrative Assistant and Belle Bojanowski, Centre Information Officer who helped at the various stages of preparation of this monograph.

Gloria M. Gutman, Ph.D.
Norman K. Blackie, Arch.D.
June, 1988

PART I: A DEMOGRAPHIC AND CONCEPTUAL OVERVIEW

1

LIVING ARRANGEMENTS OF CANADA'S OLDER ELDERLY

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INTRODUCTION

The paper, *Living Arrangements of Canada's Elderly: Changing Demographic and Economic Factors* (Priest, 1985), presented a profile of the five year age groups between 55 and 75, but grouped together all those aged 75 and over. This paper presents a demographic profile of that older elderly population according to various living arrangements in which they find themselves. While this paper makes use of new demographic data from the 1986 Census, the inclusion of new economic data from the same source is precluded because at this writing, it has not yet been released. A second limitation is that while this paper deals with an older population of whom a substantial proportion (16.0%) are found in institutions, in the 1981 and 1986 Censuses only the most basic demographic data were collected from the institutionalized population thereby severely restricting the analysis or profiling of this subgroup of the elderly.

* The author wishes to acknowledge the assistance of Joanne Paradis, Brian Hamm, Jocelyn Lepage and Helen Lytwynec in the retrieval of the data and the preparation of the tabular material. Beryl Gorman programmed the graphics and co-ordinated the translation and Lucie Lamadeleine formatted the text.

Helpful comments were provided by Dr. Edward Prior, Dr. M.V. George and Dr. Leroy Stone, all of Statistics Canada and Mr. Bob Youtz of the Ontario office for Senior Citizen Affairs. The author is solely responsible for any errors or omissions.

COMPARISON OF PROJECTED AND ENUMERATED 1986 POPULATION

Table 1 shows the projected population aged 75 and over and its living arrangements in comparison with that actually observed for 1986. The first point of note is that while the total enumerated population for 1986 was 98.9% of the projected population, the enumerated population of persons 75 years of age and over was 98.0% of the projected population. This could mean that the projections were somewhat high or it could mean that the undercoverage rate in the 1986 Census was higher than in the previous censuses and, therefore, higher than expected. It could, of course, be a combination of the two. At any rate, the difference between the two sources was close to 13,000 older women and 9,000 older men. For the purposes of this paper, we will accept the Census figures for 1986 as given and will adjust the projected figures for 1991 through 2001 downward accordingly.

In the 1985 paper two projections, based upon previous population projections, had been given for the living arrangements of the population 55 and over for the years 1986, 1991 and 1996. One projection assumed that the distribution of the population by living arrangements as enumerated in 1981 would remain constant in 1986. The other assumed that trends witnessed over the census observations of 1971, 1976 and 1981 would continue. It was suggested that the actual situation in 1986 might fall somewhere between the two. In fact, using the projection based upon the trend proved to be the better predictor and only in the cases of persons living alone or in institutions did the actual value fall within the range. The most significant differences between the expected and the actual were that relatively more persons, both men and women, were found to be living with their spouse in their own dwelling and relatively fewer living with others in someone else's home. For women, using the trend approach, we had expected to find only 16.2% living with a spouse in their own dwelling and we actually found 18.5%. Conversely, we had expected, using the same approach, to find 16.3% living in someone else's home but actually found only 15.0%.

TABLE 1:
COMPARISON OF PROJECTION 1, PROJECTION 2 AND 1986 CENSUS, CANADA

MEN AGED 75 AND OVER

LIVING ARRANGEMENTS	PROJECTION 1 (81 Distribution)		PROJECTION 2 (Trend)		1986 CENSUS	
	Count	%	Count	%	Count	%
TOTAL	400,000		400,000		391,345	
MAINTAINER	299,200	74.8	302,000	75.5	304,665	77.9
Living Alone	63,600	15.9	68,400	17.1	65,790	16.8
Living With Spouse	216,800	54.2	217,600	54.4	221,860	56.7
Spouse Only	184,000	46.0	193,000	48.2	191,600	49.0
Living With Others	18,000	4.5	16,000	4.0	16,995	4.4
NOT MAINTAINER	100,800	25.2	98,000	24.5	86,685	22.7
Living With Others	43,200	10.8	39,200	9.8	34,680	8.9
Living In Institution	48,000	12.0	50,800	12.7	45,345	11.6
Other Living arrangement	9,200	2.3	8,000	2.0	6,660	1.7

WOMEN AGED 75 AND OVER

LIVING ARRANGEMENTS	PROJECTION 1 (81 Distribution)		PROJECTION 2 (Trend)		1986 CENSUS	
	Count	%	Count	%	Count	%
TOTAL	661,500		661,500		648,165	
MAINTAINER	403,500	61.0	406,800	61.5	414,415	63.9
Living Alone	232,200	35.1	258,000	39.0	245,580	37.9
Living With Spouse	115,100	17.4	107,200	16.2	119,760	18.5
Spouse Only	100,500	15.2	101,200	15.3	106,815	16.5
Living With Others	56,200	8.5	41,700	6.3	49,065	7.6
NOT MAINTAINER	258,000	39.0	254,700	38.5	233,750	36.1
Living With Others	114,400	17.3	107,800	16.3	97,135	15.0
Living In Institution	123,700	18.7	130,300	19.7	120,870	18.7
Other Living Arrangement	19,800	3.0	16,500	2.5	15,750	2.4

**NOTE:* Total projected population 25,583,000. Actual 25,309,300
NOTE: CELLS MAY NOT SUM DUE TO ROUNDING

This latter point suggests that the trend for children to no longer take their aged parents into their homes may have continued to accelerate rather than stabilize or slow as we had expected. On the other hand, there is a temptation to wonder if the higher than expected proportion of persons aged 75 and over continuing to live with a spouse might suggest a slight shift in the sex based mortality rate differentials. That speculation, however, is beyond the scope of this paper to pursue.

Having reviewed the accuracy of the projections made in the previous paper, the balance of this paper will concentrate on the living arrangements of the older elderly population aged 75 and over. There will be an examination of shifts in living arrangements in the 1971 to 1986 period both in terms of a comparison of distributions for the four observation points and through following a cohort group which was aged 75 to 79 in 1971. Finally, armed with the new 1986 data a second attempt will be made at projecting living arrangements for the period to 2001.

LIVING ARRANGEMENTS

Not only did the population aged 75 and over increase significantly between 1971 and 1986, both absolutely (from 667,830 to 1,039,510) and relative to the total population (from 3.1% to 4.1%), but it also significantly changed its living arrangements. In 1971, 71.2% of men and 57.4% of women were living in dwellings that they or their spouse were maintaining. That is, they were themselves paying the rent, the mortgage or the taxes on dwellings that they owned or rented. They were not living with someone else in someone else's home nor were they in institutions or some other type of collective dwelling (we make a distinction here between institutions, where some level of custody or care is provided, and other collective dwellings such as hotels or rooming houses where no care is provided).

By 1986, 77.9% of men and 63.9% of women were maintaining their own dwellings. The higher proportion of men in this situation is explainable in part by the fact that men have generally married younger women. As a result, men

are more often able to maintain independent lifestyles because they more often have a spouse present with whom to share mutual support.

MEN

Between 1971 and 1986 the proportion of men 75 and over living in dwellings that they or their spouses maintained increased from 71.2% to 77.9%. As is shown in Figure 1, the increase came from those living alone (up from 13.2% to 16.8%) and from those living with a spouse (up from 50.6% to 56.7%).

The proportion of those living without a spouse but who shared their dwelling with someone else (either relatives or non-relatives) fell from 7.4% to 4.3%. Those living in someone else's home also fell, from 17.4% in 1971 to 8.9% in 1986, while those living in institutions rose from 9.1% to 12.0% in 1981, and fell back slightly to 11.6% by 1986. There are, of course, complex factors in operation here. The increase in those living in institutions may reflect not so much an increase in demand as an increase in the availability of units (the demand may always have been there). The increase in those living with a spouse has probably not been influenced as much by changes in the rate of divorce and remarriage as by an increase *in the longevity of couples* (i.e., both reaching age 75). As for the decrease in those living with others, it is difficult to say the degree to which this has, on the one hand, been *made possible* by an increase in income and the availability of suitable housing units and, on the other, been *precipitated* by having fewer children available to take their aged parents in and care for them given the increased participation of women in the labour force.

WOMEN

The situation of women (Figure 2) was quite different from that of men. In 1971, 18.2% of women lived in their own homes with their spouses. The proportion fell to 17.6% in 1976 and to 17.4% in 1981. An increase, to 18.5% in 1986, perhaps indicates the start of a reversal of the trend of men to predecease their wives or perhaps it simply reflects an

FIGURE 1
PERCENTAGE DISTRIBUTION OF MEN AGED 75 YEARS AND OVER
BY LIVING ARRANGEMENTS, CANADA, 1971, 1976, 1981, AND 1986

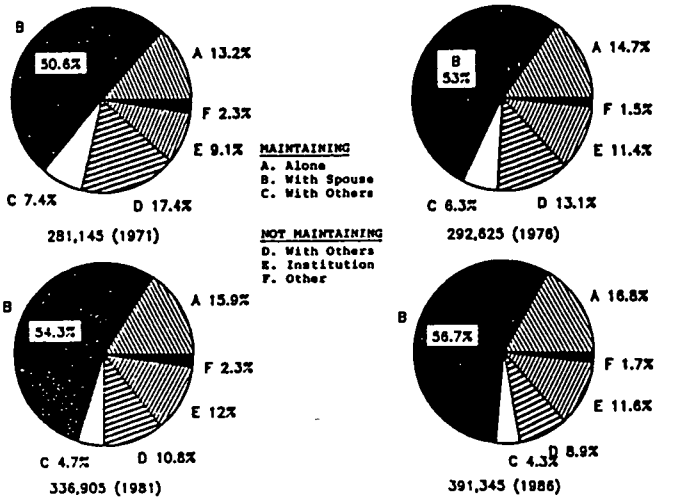
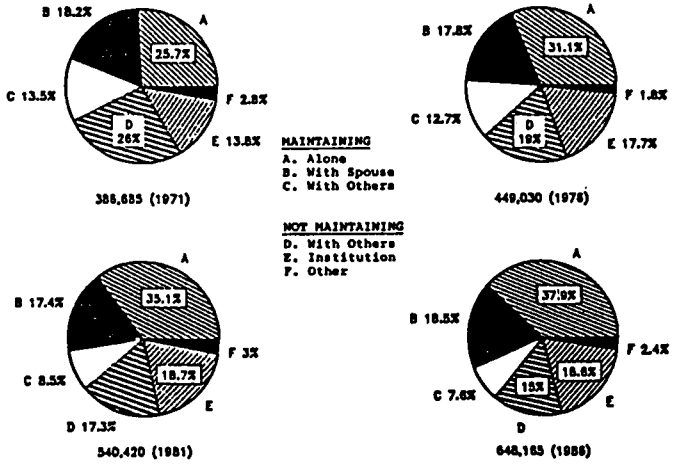


FIGURE 2
PERCENTAGE DISTRIBUTION OF WOMEN AGED 75 YEARS AND OVER
BY LIVING ARRANGEMENTS, CANADA, 1971, 1976, 1981, AND 1986



increase in those husbands and wives who are both reaching age 75 as an intact couple.

The most significant change is in the shift away from women living with other persons, either in their own homes or the homes of other people. In 1971, close to forty percent of women lived either without spouse, but with someone else, in their own homes (13.5%) or in someone else's homes (either with or without a spouse, 26.0%). By 1986, the proportion had fallen to just over twenty-one percent. On the other hand, the proportion living alone or living in institutions rose substantially in the fifteen year period. In 1971, just over one quarter of the women aged 75 and over were living alone but by 1986 this had risen to over 37%. Meanwhile the proportion living in institutions rose from 13.8% to almost 20%. In less than a generation, the care and nurturing of the aged, particularly older women, has changed dramatically. Whereas earlier generations of the older elderly might have expected to live out the larger part of their twilight years with other people in family settings, we now have a generation of older women of whom well over one half (in fact, closer to 60%) live either alone or in institutions. Seldom does demographic change alone yield such sudden shifts and one must consider the role of economic factors such as the preoccupation of younger generations of women (the tranditional care givers) with the labour force as well as what may be a new found economic independence of older women, enabling them to maintain their own private living quarters and to live on their own. As indicated in the earlier paper, the 1971 to 1981 period saw significant improvements in the economic well-being of the elderly, especially women. Early next year, when income data from the 1986 Census become available, it will be possible to determine whether those improvements continued in the latter five years. In the meantime, it would be wise not to be judgemental regarding the significant increase in numbers of older elderly women who are now living alone for we know little regarding the reasons for this change. It could well be that, following the death of a spouse, they live alone because they now have the economic means to do so. Alternatively, they could be living alone because their children are no longer able to give them the time.

COHORTS

While the section above examines how the distribution of the older elderly has shown marked changes in the last fifteen years, the following section examines cohorts of men and women and determines how their living arrangements have changed over the same period. While the method of using grouped data as determined at specific points in time is less than satisfactory, in the absence of longitudinal data it is useful in acquiring another perspective.

1971 MALE COHORT AGED 75 TO 79

Table 2 reflects the male cohort aged 75 to 79 who, in 1971, numbered some 139 thousand men. By 1976, they were aged 80 to 84 and numbered just over 84 thousand. By 1981, the survivors numbered only 43,585 and they were aged 85 to 89. By 1986, they were aged 90 and over, and together with the survivors of older cohorts (now aged 95 and over), numbered 20,345. The survival rate for this group was barely 15% or about one half that of women of the same generation.

In 1971, the clear majority of these men maintained their own dwellings and close to 60 percent lived with a spouse in their own home. As this cohort aged, compared to women relatively more men at all ages lived in their own home with a spouse and relatively fewer lived in institutions.

Even at age 90 and over, only 41.5% of this cohort lived in institutions compared to 54.2% of women. At age 90 and over, 22.1% of this cohort still had a spouse compared to only 1.7% of the women. Whereas the proportion of this cohort living alone peaked at age 80 to 84 for women, it peaked at age 85 to 89 for men, perhaps indicating the relatively older age at which they are widowed. Curiously, the proportion living in someone else's home also peaked at age 85 to 89 for this cohort of men whereas for the same cohort of women it declined steadily from the age group 75 to 79. This might indicate that this generation of men was less able to cope on their own with routine household chores.

TABLE 2:
COHORT OF MEN AGED 75-79 IN 1971, CANADA, 1971 TO 1986

MEN AGED 75-79 IN 1971	75 - 79 IN 1971		80 - 84 IN 1976		85 - 89 IN 1981		90 + IN 1986	
	COUNT	%	COUNT	%	COUNT	%	COUNT	%
TOTAL	139,360	100.0	84,355	100.0	43,585	100.0	20,345	100.0
MAINTAINER	109,905	78.9	62,045	73.6	25,975	59.6	8,465	41.6
Living Alone	17,635	12.7	13,060	15.5	7,405	17.0	2,855	14.0
Living With Spouse	83,475	59.9	43,470	51.5	16,120	37.0	4,500	22.1
Spouse Only	64,070	46.0	35,540	42.1	13,715	31.5	3,805	18.7
Living With Others	8,795	6.3	5,515	6.6	2,450	5.6	1,105	5.4
NOT MAINTAINER	29,450	21.1	22,305	26.4	17,610	40.4	11,880	58.3
Living With Others	19,380	13.9	10,905	12.9	6,440	14.8	3,155	15.5
Living In Institution	7,250	5.2	10,120	12.0	10,120	23.2	8,440	41.5
Other	2,830	2.0	1,280	1.5	1,060	2.4	285	1.4

Obviously, this cohort of men, or at least those who survived, faced somewhat less upheaval than women of the same cohort since relatively more were able to continue living in their own homes given the support of a jointly surviving spouse.

1976 MALE COHORT AGED 75 TO 79

In Table 3, it is seen that the cohort of men aged 75 to 79 in 1976 also showed a steady increase in the proportion living alone, rising from 14.2% at age 75 to 79, to 17.4% at age 80 to 84 and to 19.1% at age 85 to 89. Again, unlike women in the same age group, those living in someone else's home also rose with age for this cohort of men. However, relatively fewer men of this cohort were found to be living in this situation compared to the cohort five years older.

TABLE 3:
COHORT OF MEN AGED 75–79 in 1976, CANADA,
1971 to 1986

MEN AGED 75–79 IN 1976	75 – 79 IN 1976		80 – 84 IN 1981		85 – 89 IN 1986	
	Count	%	Count	%	Count	%
TOTAL	148,895	100.0	94,960	100.0	48,555	100.0
MAINTAINER	121,685	81.7	69,970	73.7	30,095	62.0
Living Alone	21,210	14.2	16,560	17.4	9,270	19.1
Living With Spouse	92,455	62.1	48,680	51.3	18,395	37.9
Spouse Only	74,510	50.0	41,895	44.1	16,025	33.0
Living With Others	8,020	5.4	4,730	5.0	2,430	5.0
NOT MAINTAINER	27,210	18.3	24,990	26.3	18,455	38.0
Living With Others	15,925	10.7	10,955	11.5	6,275	12.9
Living In Institution	9,075	6.1	11,790	12.4	11,240	23.2
Other	2,210	1.5	2,250	2.4	940	1.9

1981 MALE COHORT AGED 75 TO 79

The cohort aged 75 to 79 in 1981 shows similar trends to the two earlier cohorts except that increasingly more were found to be living alone, with a spouse or in an institution and fewer were to be found living with others (Table 4).

TABLE 4:
COHORT OF MEN AGED 75–79 in 1981, CANADA, 1981 TO 1986

MEN AGED 75–79 IN 1981	75 – 79 IN 1981		80 – 84 IN 1986	
	Count	%	Count	%
TOTAL	178,770	100.0	113,300	100.0
MAINTAINER	147,970	82.8	87,115	76.9
Living Alone	26,775	15.0	21,100	18.6
Living With Spouse	113,705	63.6	60,805	53.7
Spouse Only	96,030	53.7	53,310	47.1
Living With Others	7,490	4.2	5,205	4.6
NOT MAINTAINER	30.800	17.2	26,190	23.1
Living With Others	15,585	8.7	10,605	9.4
Living In Institution	11,200	6.3	13,695	12.1
Other	4,020	2.2	1,890	1.7

1986 MALE COHORT AGED 75 TO 79

By 1986, the cohort aged 75 to 79 had over 85% of its members living in homes they maintained and over 66% of them were living in these homes with a spouse, a gain of over six percent living with a spouse over the 1971 cohort. Those living alone had also increased, from 12.7% to 15.6%, while those living in someone else's home had decreased from 13.9% to 7.0% (Table 5).

TABLE 5:
COHORT OF MEN AGED 75–79 IN 1986, CANADA

MEN AGED 75–79 IN 1986	75 – 79 IN 1986	
	Count	%
TOTAL	209,145	100.0
MAINTAINER	178,990	85.6
Living Alone	32,565	15.6
Living With Spouse	138,160	66.1
Spouse Only	118,460	56.7
Living With Others	8,255	3.9
NOT MAINTAINER	30,160	14.4
Living With Others	14,645	7.0
Living In Institution	11,970	5.7
Other	3,545	1.7

1971 FEMALE COHORT AGED 75 TO 79

In 1971, in Canada, there were just less than 185 thousand women in the age group 75 to 79 (Table 6). In 1976, their numbers had fallen to 134,575 and they were now aged 80 to 84. By 1981, their numbers were further reduced to 86,105 and they were aged 85 to 89. In 1986, they were aged 90 to 94 and together with the survivors of older cohorts now aged 95 and over, they numbered 54,790. In other words, of the original group, less than three in ten survived the 15-year period. For those who did survive, their life styles changed, their living arrangements changed and it was obviously a period of adjustment and resettlement. With one exception, changes in their living arrangements were uni-directional. There was a trend away from maintaining their own

TABLE 6:
COHORT OF WOMEN AGED 75-79 IN 1971, CANADA, 1971 TO 1986

WOMEN AGED 75-79 IN 1971	75 - 79 IN 1971		80 - 84 IN 1976		85 - 89 IN 1981		90 + IN 1986	
	COUNT	%	COUNT	%	COUNT	%	COUNT	%
TOTAL	184,730	100.0	134,575	100.0	86,105	100.0	54,790	100.0
MAINTAINER	125,830	68.1	81,420	60.5	37,405	43.4	14,095	25.7
Living Alone	53,430	28.9	44,210	32.9	24,995	29.0	10,170	18.6
Living With Spouse	47,615	25.8	19,840	14.7	5,520	6.4	910	1.7
Spouse Only	38,245	20.7	16,505	12.3	4,665	5.4	805	1.5
Living With Others	24,785	13.4	17,370	12.9	6,890	8.0	3,010	5.5
NOT MAINTAINER	58,900	31.9	53,155	39.5	48,695	56.6	40,695	74.3
Living With Others	41,330	22.4	26,280	19.5	17,420	20.0	9,875	18.0
Living In Institution	13,420	7.3	24,210	18.0	28,690	33.3	29,680	54.2
Other	4,155	2.2	2,665	2.0	2,585	3.0	1,145	2.1

dwellings, from 68.1% doing so in 1971 to 25.7% in 1986. Similarly, as the population aged, fewer lived with a spouse, fewer lived with others and increasingly more lived in institutions (7.3% when aged 75 to 79 but 54.2% when aged 90 and over). Only in living alone do we see a reversal of a trend. In 1971, 28.9% of the women aged 75 to 79 were living alone. Five years later, at age 80 to 84 this proportion had risen to 32.9%, probably as a result of being left alone by deceased spouses. Upon reaching the age of 85 to 89, the proportion living alone had reversed and fallen back to 29.0% and by the time they were 90 and over, it had fallen further to 18.6% as increasing numbers shifted from maintaining their own homes to institutional settings.

It is interesting to note that while the proportion of this cohort living in institutions almost doubled for each five years that they aged, the actual number in institutions showed a much different growth pattern. It increased by over 80% as they aged from 75 to 79 to 80 to 84, but increased by just over 18% over the next five years and then just over 5% over the following five years as they entered the 90 and over group. This distinction must be kept in mind when considering the implications of demand and need.

For this particular cohort, the survival rate was less than 30% and over one half of the survivors ended up in institutions.

1976 FEMALE COHORT AGED 75 TO 79

Table 7 shows the cohort aged 75 to 79 in 1976. It is interesting to note that this group was already showing lifestyles somewhat different from their sisters who were only five years older. The proportion maintaining their own dwelling was up from 68.1% to 72.8%. The proportion living alone was up from 28.9% to 35.0% while those living with a spouse remained about the same. Relatively more were living in institutions but the proportions living with someone else were down substantially (from 22.4% to 16.8% in just five years). While this group can only be traced over the ten year period, 1976 to 1986, and only to the age of 85 to 89, trends appear to be developing in a similar way as for the older

cohort group. That is, trends were generally uni-directional except for those living alone where the rate rose from 35.0% when the group was aged 75 to 79 to 37.2% when they reached 80 to 84 but fell when they reached 85 to 89 (32.6%). Unlike the older group, this cohort, however, also saw an increase in those living in someone else's home at age 80 to 84, rising from 16.8% to 18.2% and then falling again to 18.0%. This is somewhat difficult to interpret unless it represents a period of attempted readjustment following the death of a spouse or a forced alternative due to a possible shortage of institutional space.

TABLE 7:
COHORT OF WOMEN AGED 75–79 in 1976, CANADA, 1976 to 1986

WOMEN AGED 75–79 IN 1976	75 – 79 IN 1976		80 – 84 IN 1981		85 – 89 IN 1986	
	Count	%	Count	%	Count	%
TOTAL	209,790	100.0	161,295	100.0	103,235	100.0
MAINTAINER	152,630	72.8	97,070	60.2	47,450	47.0
Living Alone	73,525	35.0	59,960	37.2	33,640	32.6
Living With Spouse	53,295	25.4	22,910	14.2	6,515	6.3
Spouse Only	44,545	21.2	20,200	12.5	5,745	5.6
Living With Others	25,810	12.4	14,200	8.8	7,295	7.1
NOT MAINTAINER	57,165	27.2	64,225	39.8	55,785	54.0
Living With Others	35,255	16.8	29,395	18.2	18,610	18.0
Living In Institution	18,370	8.8	29,580	18.3	34,595	33.5
Other	3,540	1.7	5,255	3.3	2,575	2.5

This cohort shows somewhat similar trends to the group five years older but it also shows significant differences in that far more were already living alone at 75 to 79 and far fewer were living with others.

1981 FEMALE COHORT AGED 75 TO 79

In 1981, the cohort aged 75 to 79 (Table 8) showed a further increase in the proportion maintaining their own homes, up to 73.7% from 72.8% for their sisters five years older and from 68.1% for their sisters ten years older. The proportion living with a spouse remained about the same, but this cohort had lower proportions living with others and a much higher proportion living alone: 39.0% compared with 35.0% for the group five years older when they were aged 75 to 79 and 28.9% for the group ten years older when they were the same age. As in the case of the older groups, this group also showed an increase in those living alone as they aged from 75 to 79 to age 80 to 84. Whether the rate will fall for them when they reach 85 to 89 will have to await the 1991 Census.

TABLE 8:
COHORT OF WOMEN AGED 75–79 in 1981, CANADA, 1981 TO 1986

WOMEN AGED 75–79 IN 1981	75 – 79 IN 1981		80 – 84 IN 1986	
	Count	%	Count	%
TOTAL	250,340	100.0	192,745	100.0
MAINTAINER	184,560	73.7	123,500	64.1
Living Alone	97,745	39.0	79,425	41.2
Living With Spouse	64,855	25.9	29,070	15.1
Spouse Only	56,810	22.7	25,895	13.4
Living With Others	21,960	8.8	15,005	7.8
NOT MAINTAINER	65,780	26.3	69,240	35.9
Living With Others	37,580	15.0	30,715	15.9
Living In Institution	20,665	8.3	33,565	17.4
Other	7,535	3.0	4,955	2.6

1986 FEMALE COHORT AGED 75 TO 79

The cohort aged 75 to 79 in 1986 (Table 9) would appear to continue trends shown by earlier groups but there are some significant differences. The proportion maintaining their own homes has taken a substantial jump to 77.1% from 68.1%, 72.8% and 73.7% for earlier groups. Those living alone also increased while those living with others continued to decline. Of particular interest is the increase in the proportion living with a spouse which is up to 28.0% from previous levels between twenty-five and twenty-six percent. In fact, between 1981 and 1986, while the number of women aged 75 to 79 increased by 18.8%, the number of women in that age group maintaining a dwelling with a spouse increased by 28.4%.

TABLE 9:
COHORT OF WOMEN AGED 75–79 IN 1986, CANADA

WOMEN AGED 75–79 IN 1986	75 – 79 IN 1986	
	Count	%
TOTAL	297,395	100.0
MAINTAINER	229,370	77.1
Living Alone	122,345	41.1
Living With Spouse	83,265	28.0
Spouse Only	74,370	25.0
Living With Others	23,755	8.0
NOT MAINTAINER	68,030	22.8
Living With Others	37,935	12.8
Living In Institution	23,030	7.7
Other	7,075	2.4

Thus it is seen that the women aged 75 to 79 in 1986 found themselves in a substantially different situation than did their sisters in the same age group fifteen years earlier. Relatively more of them were maintaining their own dwellings, either alone or with a spouse and slightly more were living in institutions but substantially fewer were living with others, particularly in someone else's home.

In summary, in many respects these cohorts of men and women showed very different patterns of living arrangements but some things were common to all. In all, with time there was an increased propensity to live alone or in an institution and a decreased probability of living with someone else other than a spouse which showed a slight increase for both men and women. Clearly, women in particular, in later cohorts did not experience life styles experienced by older cohorts. The data here, however, do not tell us whether they suffered the disappointments of unmet expectations or whether they consciously plotted new courses.

LIVING ALONE

Given other substantial changes to the population aged 75 and over and given the increases over the last 15 years in the proportion of these people who live alone or in institutions, the question arises as to whether the profile of persons who live alone or in institutions has also changed.

Of men aged 75+ who lived alone in 1971, just under one half (Table 10) were aged 75 to 79, just over 33% were aged 80 to 84, almost 15% were 85 to 89 and 4.3% were 90 or over. By 1986, there was relatively little change in this distribution and there were no discernable trends. In other words, even though relatively more of these older men were living alone in 1986 than in 1971 (16.8% vs. 13.2%), their age profile was essentially the same. This was not the case for women (Table 11). In 1971, somewhat over one half of women aged 75 and over were in the age group 75 to 79 (53.8%), just under 32% were 80 to 84, 11.6% were 85 to 90 and 2.7% were 90 or over. By 1986, the proportion who were 75 to 79 had fallen to just less than one half (49.8%) while the proportion 85 to 89 had increased from 11.6% to 13.7% and those 90 and over had increased from 2.7% to 4.1%.

Unlike the men, the profile of these older women is changing. That is, the women who are living alone are generally older in 1986 than was the case in 1971. At the moment, it is difficult to determine why this trend should be occurring and indeed, why the situation is not the same for the men.

TABLE 10
MEN 75 YEARS AND OVER LIVING ALONE, CANADA, 1971- 1986

	TOTAL 75+		75-79		80-84		85-89		90+	
	Count	%	Count	%	Count	%	Count	%	Count	%
1971	37,035	100.0	17,635	47.6	12,270	33.1	5,555	14.9	1,575	4.3
1976	43,055	100.0	21,210	49.3	13,060	30.3	6,620	15.4	2,165	5.0
1981	53,450	100.0	26,775	50.1	16,560	25.4	7,405	13.9	2,710	5.1
1986	65,790	100.0	32,565	49.5	21,100	32.1	9,270	14.1	2,855	4.3

TABLE 11:
WOMEN 75 YEARS AND OVER LIVING ALONE, CANADA, 1971- 1986

	TOTAL 75+		75-79		80-84		85-89		90+	
	Count	%	Count	%	Count	%	Count	%	Count	%
1971	99,320	100.0	53,430	53.8	31,690	31.9	11,550	11.6	2,650	2.7
1976	139,965	100.0	73,525	52.5	44,210	31.6	17,635	12.6	4,595	3.3
1981	189,795	100.0	97,745	51.5	59,960	31.6	24,995	13.2	7,095	3.7
1986	245,580	100.0	122,345	49.8	79,425	32.3	33,640	13.7	10,170	4.1

LIVING IN INSTITUTIONS

Between 1971 and 1986, the number of men aged 75 and over living in institutions almost doubled, from 25.6 thousand to 45.3 thousand and the number of women in the same age group almost doubled, from 53.2 thousand to 120.0 thousand (Tables 12 and 13). This is a substantial increase of over 67 thousand in a mere 15 year period. While there may be criticism of waiting lists and costs it is, perhaps, remarkable that the public, private and voluntary sectors responded as well as they did in providing accommodation. Furthermore, the profile of that population changed in the same period, which may or may not be indicative of a need for a somewhat different level of care. In 1971, 28.2% of the men 75 and over in institutions were aged 75 to 79; only 13.1% were 90 or over. By 1986, the proportion of men in each of the age groups 75 to 79, 80 to 84 and 85 to 89 had fallen while the proportion 90 and over had risen to over 18%. This represents a significant change in the age profile of men in institutions during the 15 year period.

Among women aged 75 and over, close to one in four in 1971 were in the age group 75 to 79. By 1986, the proportion 75 to 79 had fallen to one in five. The proportion in the group 80 to 84 also fell while those in the two oldest groups, 85 to 89 and 90 and over rose, substantially in the case of the latter (from 15.4% to 24.6%) so that by 1986, close to one in four of these older women in institutions was over 90.

Thus, in the span of a relatively few years, not only did the number of elderly persons in institutions increase by a remarkable amount, but the age profile of that population also changed substantially. This does not necessarily imply a need for a higher level of care since this new population may be healthier than earlier generations, but it does seem reasonable to assume that there is at least some impact in terms of level of care required. It also doesn't necessarily follow that this shift was driven solely by demographic factors, for it is possible that more restrictive admission practices may have screened out younger applicants.

TABLE 12:
MEN 75 YEARS AND OVER LIVING IN INSTITUTIONS, CANADA, 1971- 1986

	TOTAL 75+		75-79		80-84		85-89		90+	
	Count	%	Count	%	Count	%	Count	%	Count	%
1971	25,685	100.0	7,250	28.2	8,355	32.5	6,725	26.2	3,355	13.1
1976	33,225	100.0	9,075	27.3	10,120	30.5	8,495	25.6	5,535	16.7
1981	40,500	100.0	11,200	27.7	11,790	29.1	10,120	25.0	7,390	18.2
1986	45,345	100.0	11,970	26.4	13,695	30.2	11,240	24.8	8,440	18.6

TABLE 13:
WOMEN 75 YEARS AND OVER LIVING IN INSTITUTIONS, CANADA, 1971- 1986

	TOTAL 75+		75-79		80-84		85-89		90+	
	Count	%	Count	%	Count	%	Count	%	Count	%
1971	53,240	100.0	13,420	25.2	17,300	32.5	14,335	26.9	8,185	15.4
1976	79,415	100.0	18,370	23.1	24,210	30.5	22,165	27.9	14,670	18.5
1981	101,085	100.0	20,665	20.4	29,580	29.3	28,690	28.4	22,150	21.9
1986	120,870	100.0	23,030	19.1	33,565	27.8	34,595	28.6	29,680	24.6

PROJECTIONS

Tables 14 and 15 and Figures 3, 4, 5 and 6 provide projections of the population aged 75 and over by living arrangements for the years 1991, 1996 and 2001. These projections are based heavily upon trends witnessed since 1971 but obviously at some point some of these are going to slow and stabilize. For example, the decreasing proportion of persons living with others cannot continue much longer at the present rate without reaching a zero population.

What is difficult to predict is when that arresting of the trend is going to start. For the next fifteen year period, it has been assumed that trends will continue generally as they have in the last fifteen years.

In terms of policy formulation or program development, perhaps the most important projections are for those living with a spouse, those living alone and those living in institutions.

The figures for those *living with a spouse*, however, need to be interpreted with some caution in that many, but not all, of the men and women shown will be married to each other and form one household and one unit of consumption for many goods and services such as housing. For example, in 1986 there were 221,860 men aged 75 and over living with a spouse in a home they were maintaining. In the same year, however, there were only 119,760 women in the same age group and in the same situation. This difference is due, of course, to the general practice of men marrying women younger than themselves. The number of households, therefore, in which one of the couple is age 75 and over is probably close to but somewhat higher than the figure of 221,860 given for men since women generally have not married men younger than themselves.

The number of men 75 and over *living with a spouse in a dwelling they maintain* is projected to rise by some 58,500 by 1991, by another 54,000 by 1996 and by a further 72,500 by 2001. This represents a substantial market for purpose-built

TABLE 14:
PROJECTIONS OF POPULATION 75 YEARS AND OVER BY SEX AND LIVING ARRANGEMENTS, CANADA, 1971 TO 1986 ENUMERATED, 1991 TO 2001 PROJECTED

	1971	1976	1981	1986	1991	1996	2001
MEN 75 AND OVER	281,145	292,625	336,905	391,345	471,500	554,000	656,500
MAINTAINER	200,085	216,710	252,045	304,665	379,000	454,000	545,000
Living Alone	37,035	43,055	53,450	65,790	84,500	102,000	124,500
Living With Spouse	142,360	155,105	182,700	221,860	280,500	334,500	407,000
With Spouse Only	108,895	125,175	155,110	191,600	244,000	288,000	348,000
Living With Others	20,690	18,550	15,895	16,995	14,000	17,500	13,500
NOT MAINTAINER	81,045	75,915	84,860	86,685	92,500	100,000	111,500
Living With Others	48,805	38,270	36,545	34,680	37,000	28,000	29,500
Living In Institution	25,685	33,225	40,500	45,345	57,000	66,500	75,500
Other	6,580	4,415	7,840	6,660	1,500	5,500	6,500
	1971	1976	1981	1986	1991	1996	2001
WOMEN 75 AND OVER	386,685	449,030	540,420	648,165	782,000	917,000	1,053,500
MAINTAINER	222,005	276,065	329,550	414,415	524,000	632,500	737,500
Living Alone	99,320	139,965	189,795	245,580	321,000	403,500	474,000
Living With Spouse	70,345	79,155	94,030	119,760	160,000	192,500	231,500
With Spouse Only	55,820	65,760	82,275	106,815	138,000	169,500	200,000
Living With Others	52,340	56,945	45,725	49,065	43,000	36,500	32,000
NOT MAINTAINER	164,685	172,965	210,860	233,750	258,000	284,500	316,000
Living With Others	100,500	85,395	93,325	97,135	90,000	82,500	79,000
Living In Institution	53,240	79,415	101,085	120,870	164,000	197,000	242,500
Other	10,950	8,160	16,460	15,750	4,000	5,000	5,500

TABLE 15:
PERCENTAGE DISTRIBUTION OF POPULATION 75 YEARS AND OVER BY SEX AND LIVING ARRANGEMENTS, CANADA, 1971 TO 1986 ENUMERATED, 1991 TO 2001 PROJECTED

	1971	1976	1981	1986	1991	1996	2001
MEN 75 AND OVER	100.0	100.0	100.0	100.0	100.0	100.0	100.0
MAINTAINER	71.2	74.1	74.8	77.9	80.4	82.0	83.0
Living Alone	13.2	14.7	15.9	16.8	17.7	18.5	19.0
Living With Spouse	50.6	53.0	54.2	56.7	59.3	61.0	62.0
With Spouse Only	38.7	42.8	46.0	49.0	51.8	52.0	53.0
Living With Others	7.4	6.3	4.7	4.3	3.0	2.5	2.0
NOT MAINTAINER	28.8	25.9	25.2	22.1	19.6	18.0	17.0
Living With Others	17.4	13.1	10.8	8.9	7.0	5.0	4.5
Living In Institution	9.1	11.4	12.0	11.6	12.0	12.0	12.5
Other	2.3	1.5	2.3	1.7	0.6	1.0	1.0
	1971	1976	1981	1986	1991	1996	2001
WOMEN 75 AND OVER	100.0	100.0	100.0	100.0	100.0	100.0	100.0
MAINTAINER	57.4	61.5	61.0	63.9	67.0	69.0	70.0
Living Alone	25.7	31.2	35.1	37.9	41.0	44.0	45.0
Living With Spouse	18.2	17.6	17.4	18.5	20.4	21.0	22.0
With Spouse Only	14.4	14.6	15.2	16.5	17.6	18.5	19.0
Living With Others	13.5	12.7	8.5	7.6	5.6	4.0	3.0
NOT MAINTAINER	42.6	38.5	39.0	36.1	33.0	31.0	30.0
Living With Others	26.0	19.0	17.3	15.0	11.5	9.0	7.5
Living In Institution	13.8	17.7	18.7	18.6	21.0	21.5	23.0
Other	2.8	1.8	3.0	2.4	0.5	0.5	0.5

FIGURE 3
PERCENTAGE DISTRIBUTION OF MALE POPULATION 75 YEARS AND OVER BY LIVING ARRANGEMENTS, CANADA, 1971 TO 1986 ENUMERATED, 1991 TO 2001 PROJECTED

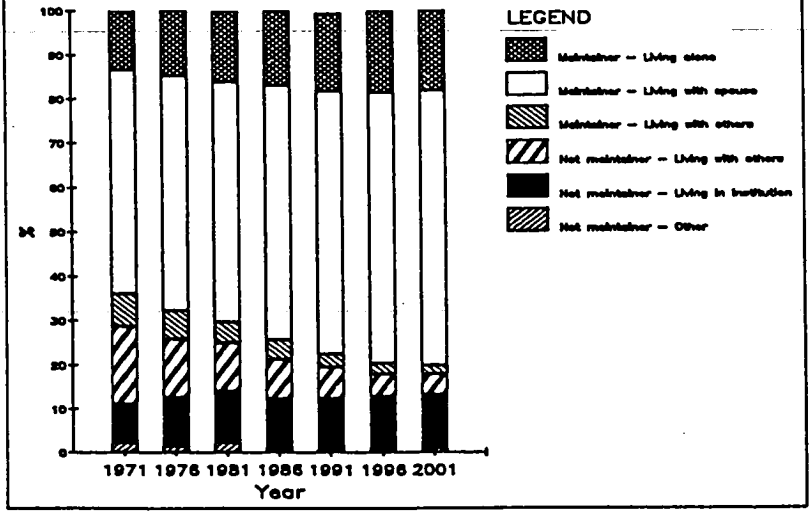


FIGURE 4
PERCENTAGE DISTRIBUTION OF FEMALE POPULATION 75 YEARS AND OVER BY LIVING ARRANGEMENTS, CANADA, 1971 TO 1986 ENUMERATED, 1991 TO 2001 PROJECTED

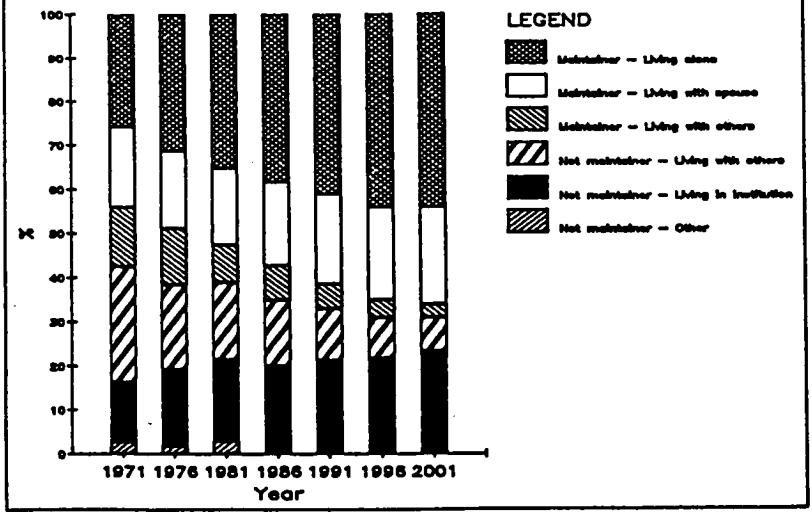


FIGURE 5
PROJECTIONS OF MALE POPULATION 75 YEARS AND OVER, BY LIVING LIVING ARRANGEMENTS, CANADA, 1971 TO 1986 ENUMERATED, 1991 TO 2001 PROJECTED

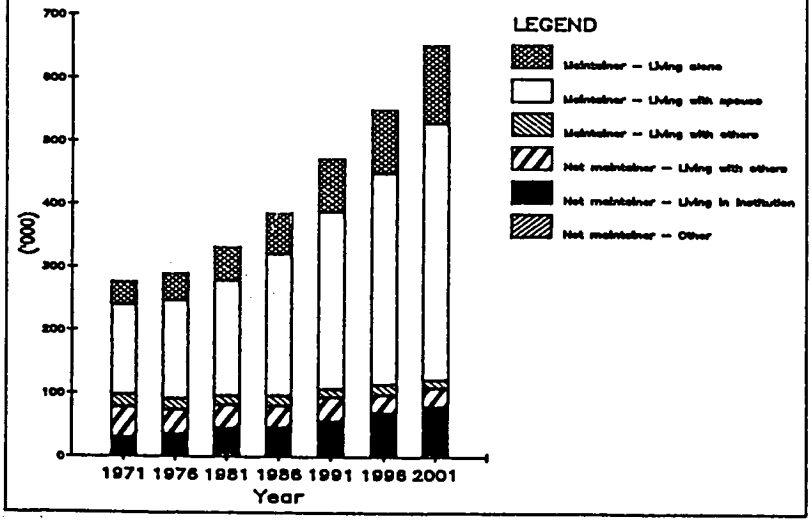
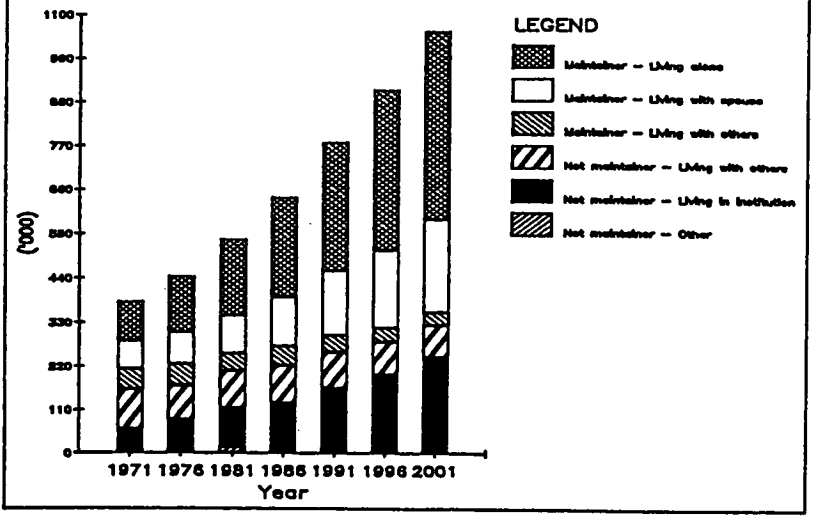


FIGURE 6
PROJECTIONS OF FEMALE POPULATION 75 YEARS AND OVER, BY LIVING LIVING ARRANGEMENTS, CANADA, 1971 TO 1986 ENUMERATED, 1991 TO 2001 PROJECTED



retirement homes. And this only represents part of the market since there are even more couples in the age groups who will have retired but who are younger than 75 who would be in the market for similar housing.

Figure 7 projects that men *living alone* will rise by close to 18.5 thousand between 1986 and 1991, by 17.5 thousand over the next five years and by 22.5 thousand between 1996 and 2001 when they will number close to 125,000. Over the same period, the number of women living alone should rise by close to 74 thousand between 1986 and 1991, by another 82.5 thousand over the next five years and by a further 70 thousand between 1996 and 2001 when they will number about 474,000 (they numbered 99,320 in 1971). This represents, in total, in a span of 15 years, an increase of over 285,000 older elderly persons living alone. There are implications here for services to this population in terms of home care, home maintenance, home security, transportation, and social support as well as for the packaging of foods appropriate to persons living alone and perhaps appropriate to specific diets. Such services can be mounted relatively easily compared to the provision of appropriate housing. In some cases, elderly persons may cope reasonably well in maintaining the family home after the death of a spouse. In other, and probably the majority of cases where the female is the survivor, the death will precipitate a move to smaller and more manageable housing. That need may be met by the market place or it may precipitate the building of purpose-built structures specifically for seniors. That is, housing that is smaller than family housing, has fewer bedrooms, more safety features such as grab bars in the bathroom, better lighting and better security. Good housing will obviously outlive its occupants and an investment in purpose-built housing requires some guarantee that the period of need will approximate the life-span of the housing.

Clearly, in the short run, purpose-built housing for single seniors will be a sound investment. As the baby boomers mature and enter the ranks of the elderly some forty years from now, we might expect some peaking in the demand but that is beyond our ability to predict at the present time.

FIGURE 7
PROJECTED INCREASES IN POPULATION AGE 75 AND OVER
LIVING ALONE, CANADA, 1986 TO 2001

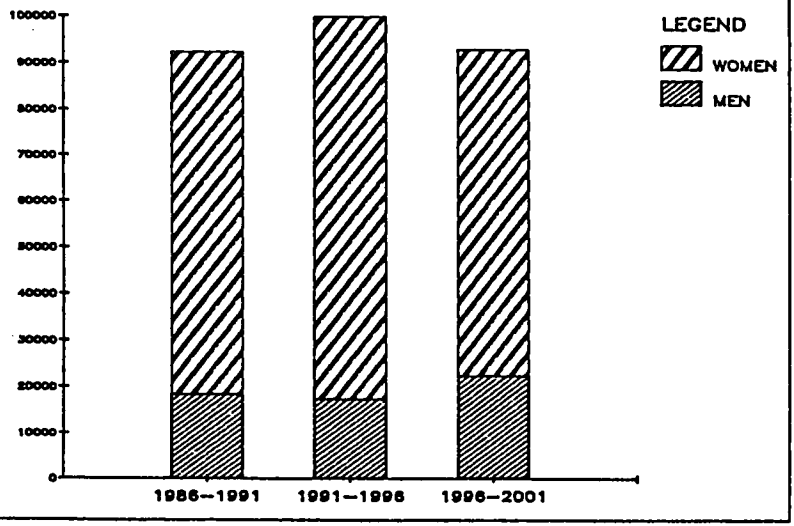
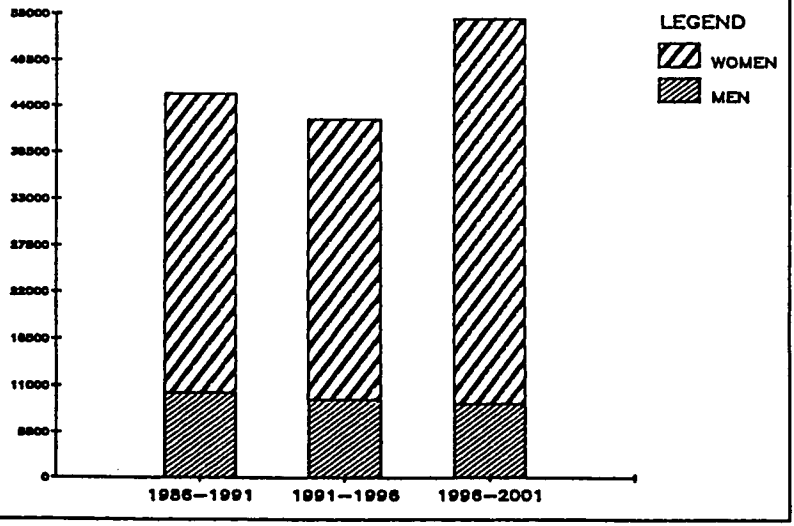


FIGURE 8
PROJECTED INCREASES IN POPULATION AGE 75 AND OVER
LIVING IN INSTITUTIONS, CANADA, 1986 TO 2001



There is also the matter of the selection of appropriate sites for purpose-built housing. The mobility of older seniors is drastically curtailed when they are no longer able to operate a motor vehicle. Using public transportation is often a fearsome experience for the older elderly. Therefore sites must be selected which are close to services and amenities if the residents are to maintain a minimum of independence and delay the day when they are faced with seeking the fuller care of the institution.

If *institutional care* is provided at the same rate as in the past fifteen years, then the number of men aged 75 and over in institutions should increase by over 10,000 by 1991, by another 9,500 by 1996 and by a further 9,000 by 2001. Women aged 75 and over should increase the institutional population by over 35,000 by 1991, by an additional 33,000 by 1996 and by another 45,500 by 2001 (Figure 8). That, of course, assumes that the necessary institutional units are actually put in place. Given that there now are waiting lists for most seniors oriented institutions, it is assumed that the demand, at least in the past, has generally exceeded the supply. If the units are not built and families are unable or unwilling to provide shared shelter, then the implications are that we will see an even larger increase in the elderly population living alone, or we may see increasing numbers of seniors doubling up, sharing accommodation to provide mutual support. Alternatively, we may see more of those elderly with economic means hiring companions to provide support and perhaps live with them. At any rate, the next fifteen years would appear to generate a very substantial demand (approximately 142,000 units) for institutional facilities designed for the older elderly. Also required, of course, would be the staff and services needed to support the units.

DEMOGRAPHIC CHANGE

While demographic change is generally relatively slow, Canada has undergone significant demographic shifts in the past, often over a relatively short period of time such as the period of European immigration before the First World War or the baby boom after the Second World War. Both left their mark on the country, the latter in a unique way. First, the

baby boom placed new demands on the educational system, consumer patterns changed and we became child and youth oriented. In its early years, this baby boom population was a dependent population, that is, not active in the labour force. Now we are facing the birth of a new dependent population beside which the baby boom may pale in comparison. The passing of legislation to abolish mandatory retirement is an indication of just one possible impact of this demographic whirlwind. Others will be seen in demands for new consumer goods and services, new forms of housing and new types and levels of geriatric care.

It might have been assumed that there would be some delay of child birth during the war but the magnitude of the boom that followed it was largely unanticipated. We should not, however, be unprepared for the elders boom that is sweeping upon us for those people are now among us and our systems of projecting populations, especially older populations, are relatively accurate. There is, therefore, no excuse for not being prepared to provide the goods, services, and care that is going to be needed in the very near future.

SUMMARY

There has been a very significant change in the living arrangements of Canada's older elderly in a very short period of time. In the fifteen year period between 1971 and 1986, we have seen rather dramatic increases in the number of people aged 75 and over living alone or in institutions rather than with others, primarily family. We have seen slight changes in the proportions living with spouses, probably because relatively more people are surviving into these advanced years as an intact couple. The concept of the empty nest gains new meaning in the family life cycle typology when we consider that if couples have fewer children (delayed births aside), as recent generations have, it is expected that they will enter the empty nest stage at younger ages. Coupled with a potentially increasing longevity, the empty nest stage is becoming increasingly longer, occupying a more significant part of our lives especially for those men who do survive into their late 70's and beyond. Women face a somewhat different future since so many are predeceased by their husbands. At

any rate, the increase in the empty nest stage implies a new growth sector for goods and services from housing to consumer goods to leisure, recreation and travel. Given that it has had close to a lifetime to acquire capital, this population has assets as well as discretionary income and therefore is in a strong position to influence markets.

The older elderly, however, will also make demands for certain goods and services which will not be discretionary but upon which they are dependent. As health fails and mobility declines there follows a demand for support services to help maintain these individuals in their own dwellings or purpose-built and institutional accommodation together with the related services.

The examination of the trends of the past fifteen years as well as the experience of recent cohorts provide a good picture of today's older elderly and an indication of what we might expect in the next fifteen years. If current trends continue, the most significant challenge that we face as a society is to recognize and respond to the very great numbers of persons aged 75 and over who, by the turn of the century, will be living alone or will be in need of institutional care.

Between 1986 and 2001 we can expect the older elderly who are living alone to increase by well over 285,000 persons which is a population approximately the size of the cities of Halifax, Victoria or Windsor in 1986.

By 2001, we also can expect the older elderly population demanding institutional care to have increased by close to 143 thousand persons. That increase is greater than the 1986 population of Saint John, Sherbrooke, Thunder Bay or Trois Rivieres. It does not take into account existing units that may need to be replaced or upgraded. We also expect that demand will not stop in 2001. The changes in the demographic situation and the living arrangements of the older elderly present both challenges and opportunities for the public sector, the private sector, the volunteer sector and, perhaps, for each of us individually depending upon our relationships with both today's and tomorrow's generations of older elderly.

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2

KEY CONCEPTUAL ISSUES IN HOUSING THE VERY OLD

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INTRODUCTION

There are at least eight key conceptual issues which relate to housing the very old, defined here as persons aged 75 and over. These concern: I) the heterogeneous nature of the very old population; II) the process of age segregation occurring through aging in place or by relocation; III) the multidimensional needs of the very old which vary in both type and intensity; IV) affordability variations within the very old population; V) variations across sub-groups of the very old in access to services; VI) variations in individual and collective support services among the very old and across housing types and sites; VII) variations in the extent of interdependence or the opportunity for aging with the dignity of choice within the very old population; and VIII) the lack of necessary research relative to these issues.

The sub-groups of interest in discussing the housing needs of the very old are:

1) the independent in

a) single family dwellings or
b) apartments;

2) the functionally frail in

a) single family dwellings,
b) in apartments including seniors' housing, and
c) in other settings;

3) the cognitively disoriented and those with related disorders in

a) single family dwellings,
b) congregate settings,
c) general care facilities or
d) in specialized care units;

4) the "hard to house" or homeless in

a) shelters,
b) single room occupancy (SRO's) sites, and
c) parks, subways and doorways (Bachrach, 1987).

As presented in Table 1, the issues and subgroups can be visualized as a matrix which provides a conceptual framework for discussing housing of the very old.

By referring to this framework, it is possible to see that there are commonalities according to subpopulation groups and according to location, but seldom according to issues. However, it should be noted that when either subgroup or location are held constant, the issues tend to fall along a series of independence to dependence continua. It also becomes possible to describe those persons reflected by the horizontal rows or to describe from the columns the range of anticipated characteristics of the very old on any given issue.

It should be noted that this framework is cross-sectional or a "snapshot" at a single time. Therefore, it is not possible to identify the changes that occur over time, which is especially problematic in developing policies or programs for the cognitively disoriented. Anecdoctal evidence exists of dramatic changes over time within this subpopulation across all issues but to date very little "hard" data exist to document these changes.

HETEROGENEITY

As Priest demonstrates in Chapter 1 of this volume, the variability in the very old population currently, historically and as projected is extremely broad. He also points to a number of the changes which are occurring in this population. Sex ratios, age cohorts and living arrangements are three critical characteristics to bear in mind when planning with and for the subpopulations identified here.

In addition to those characteristics discussed by Priest, we lack knowledge even about the ages of the "hard to house". A dearth of knowledge also exists concerning the characteristics of most of those who are cognitively disoriented or have related disorders.

AGE SEGREGATION

Age segregation may be described as either naturally occurring, that is, arising from "aging-in-place" or, as resulting from relocation to seniors' buildings, retirement neighbourhoods, villages or communities. Sun City, Arizona and the new "younger" Sun City West are the most widely known examples of the latter, while many of our rural communities are examples of the former type of age segregation. "Aging-in-place" does, however, also occur in age segregated settings. The original Sun City is now over 20 years old and those who relocated there in their 60's have "aged-in-place" to their 80's. It should also be noted that those who are moving in tend to be older (and frailer) than the original residents (Kramek et al, 1986). This process, along with continued market research, led the developers to establish Sun City West for the 55 and older population who didn't feel comfortable nor wanted in Sun City (see: The Sun City West Prospectus, 1987).

It should be noted that the issue of age-segregation is irrelevant to those "hard to house" who are found in shelters and "outdoors". The latter term is a carry-over from the Great Depression when it was applied to "outdoor relief" and remains a real descriptor for the homeless who inhabit the parks, riverbanks, and shores but also includes those who

TABLE 1: CONCEPTUAL FRAMEWORK FOR HOUSING THE VERY OLD

Locations of the		Very Old Population Subgroups	Conceptual Issues										
			I Hetero-geneity	II Age Segregation		III Multidimensional Needs		IV Affordability	V Access to Services	VI Support Services		VII Inter-dependence (dignity of choice)	VIII Canadian Research
				In place	Relocate	Types	Intensity			Individual	Collective		
Own Homes		1. Independent	alone or with spouse & younger	usual	retirement villages	few	low	seldom of concern except the house poor	very good to very poor	good to poor	unusual	retains options	some descriptive & general
		2. Functionally Frail	with spouse or others & older	usual	occasional	physical health needs	moderate	seldom of concern	generally problematic	often unlikely	occasional	some choices foregone	limited descriptive
		3. Cognitively Disoriented	with spouse or others (age unknown)	usual	occasional	mental health needs	moderate	management of concern	problematic to poor	usually none	seldom	few choices exercised	virtually none
Apartments		1. Independent	alone or with spouse & younger	usual	serviced blocks	few	low	seldom of concern or seniors' units	very good to very poor	good to poor	occasional	generally retains options	considerable descriptive & general
	Senior's Housing	2. Functionally Frail	with spouse or others (some alone & older)	seldom	usual seniors' units with services	physical health & economic need	moderate	usually serious concern	generally fair	occasional	fairly general	some choices foregone	descriptive & some analytic
		3. Cognitively Disoriented	with spouse or others (age unknown)	seldom	usual senior units with services	mental health & economic needs	moderate	usually serious & management of concern	generally problematic	occasional	seldom	seldom exercises choices	virtually none
	SRO's	4. "Hard to House"	alone (some others) (age unknown)	usual	occasional	psycho-social & economic needs	moderate	lifetime concern	generally poor	occasional	very seldom	generally based on choices	a little descriptive

TABLE 1: CONCEPTUAL FRAMEWORK FOR HOUSING THE VERY OLD *(continued)*

Congregate Settings	Supportive Housing	2. Functionally Frail	generally alone-usually female (or with others) & older	seldom	residential care (foster homes)	physical health needs	moderate to high	seldom though may become concern	generally fair to good	generally fair	fair to good	choices often foregone	very little & descriptive
		3. Cognitively Disoriented	generally alone (few others) age unknown	seldom	residential care lodges	mental health needs	moderate to high	management greater concern	may be problematic even if good	occasional	only fair	seldom exercises choices	virtually none
	Shelters	4. "Hard to House"	alone usually male (age unknown)	N/A	N/A	psycho-social & economic needs	high	extreme concern	generally poor	virtually nil	N/A	very limited choices but exercised	none found
Care Facilities General & Special		2. Functionally Frail	alone usually female & older	seldom	usual PCH's	physical health needs	high	lower concern than health (insurance)	generally good	generally good	typical	many choices foregone	most heavily studied
		3. Cognitively Disoriented	alone and older	seldom	usual PCH special units	mental health needs	high	less concern than mental health except management	usually irrelevant	generally fair	fair	choices usually meaningless	more is appearing
Parks, etc.		4. "Hard to House"	alone (some others) (usually male) (age unknown)	N/A	N/A	psycho-social & economic needs	high	crisis	very poor	almost nil	N/A	exceedingly limited choices	none found

"live" in subway stations, basements of public buildings, parking structures, bus shelters, and assorted interior and exterior doorways. These "bag-ladies" and "pack-men" are the least known persons among the very old population. Their shelter needs are virtually unknown, they are often ignored or forgotten, and most typically, their behavior reflects very long standing patterns and lifestyles. It should be mentioned that many of these older persons, along with those living in SRO's (Stephens, 1976; Lally et al, 1979; Cohen and Sokolovsky, 1979; Cohen et al, 1988), are fiercely independent, extremely suspicious of anyone other than another "hard to house" person and usually tell officialdom (of any kind) to "butt out". Very little "hard" data exist about this group. Anecdotally, we know that many are alcoholics and/or other substance abusers while another major group consists of ex-mental patients (usually schizophrenic or paranoid) who, after living in institutions most of their lives, have been "normalized" into the community.

MULTIDIMENSIONAL NEEDS

It must be pointed out that needs vary from person to person according to type and degree of intensity. The types of needs which are especially relevant to housing decisions of the very old are: (1) psycho-social needs, (2) physical functioning or health needs, (3) mental functioning or health needs, (4) economic needs and (5) resource needs. "Affordability", reflecting economic needs is shown as a separate concept. Also treated as separate concepts are "access to services", reflecting the need for resource accessibility, and "support services", reflecting the need for resources to be readily available.

However, while we can conceptually separate these issues, it must be recalled that they are integral to the individual. Consequently, assessing housing needs requires a multidimensional assessment instrument and process (Havens, 1984; Lawton, 1970). Such an instrument must also be capable of capturing the varying intensities of needs across types within the individual or the aggregate of individuals depending on whether one is attempting to assist an

individual with a housing decision or developing policy and planning for a subgroup of the very old population.

In the case of this concept, the subgroup is the critical descriptive variable and the location is more reflective of the type and degree of need which describes the subgroups. The most nearly perfect continuum in this framework is the intensity of needs, while holding location constant.

It is essential to recall that, while the non-longitudinal nature of this framework does not allow one to document change, needs do change over time both in *type* and in *intensity*, increasing or decreasing singly or in varying combinations. Some diseases, like Alzheimer's type dementia and Parkinson's disease, are progressive but others, such as arthritis, are much more variable. The variations in type of need and in intensity must be seriously considered in arriving at housing decisions.

AFFORDABILITY

The primary stated goal of public housing, including seniors' housing, is affordability, and this goal has been attained to a great extent in publicly funded seniors' housing and through rental subsidies (Falk, 1980). Affordability is of much greater concern to the "hard to house" and to the "house poor" older couple, widow or other older person living alone. The former subgroup (i.e., the homeless) have usually faced this issue throughout their life. However, the "house poor" are likely to experience concerns about affordability only late in life. As Chevan (1987) points out, one must ask when does one's real property asset become a financial liability? There are financial instruments available to address and redress this concern (e.g., Reverse Annuity Mortgages); however, they have been poorly received and perceived by the present generation of older persons (Gutman, Milstein and Doyle, 1987). It is necessary to recall that these are the people who survived the Great Depression with property to show for their life and for their children (if they have any) to inherit. Whether this attitude to creating cash flow from property will change with the younger-old population is to date unknown.

Another subgroup at risk relative to affordability are those who are cognitively disoriented. In this case, adequate income may exist, but these individuals may be unable to manage their finances. This is especially a problem for those who are not sufficiently disoriented to be declared incompetent and hence to be protected by the public trustee or some other capable individual. These persons may not remember to pay the rent or to cash their cheques so they can pay the rent or the taxes and utilities or even buy food. We have no data to suggest how many persons are in this situation.

ACCESS TO SERVICES

Access to services varies widely across subgroups, as location is the critical variable to this conceptual issue (Zamprelli, 1976). That is, unlike the issue of multidimensional needs, location rather than subgroup is the crucial descriptive variable. Policy makers and program personnel should give high priority to appropriate siting of purpose-built housing for the very old. Additionally, they should be sensitive to the necessity of bringing services to those who have aged-in-place in naturally occurring retirement communities or other locations (Myers, 1982).

SUPPORT SERVICES

Support services may be delivered to an individual or they may be delivered collectively to several individuals at the same site (Kyle, 1987). The classic example of the former is meals-on-wheels, while wheels-to-meals (or congregate meals) is an example of the latter. One should note that collective service delivery is an irrelevant concept to the "hard to house" in shelters and "outdoors". If economies of scale are important, then congregate services should prevail; however, except in congregate facilities such as senior citizen's housing units, the success of collective services has been minimal. This lack of success, in part, derives from their usual voluntary nature wherein the community volunteers "burn out" and services can no longer be made available (IACSSS, 1984). By assuring at least one part-time staff person and involving participants, collective services have proved to be very successful in small communities (Rigaux, 1986).

However, to date, similar efforts in large urban centres have been less successful as the natural neighbourhoods to sustain congregate services must be small and urban dwellers have tended to target geographic areas which are too large to function well in providing collective services (IACSSS, 1987).

The availability of support services is of particular importance if health care costs are to be contained, if the very old are to remain in the community as long as possible, and if home care is to be restricted to health care. Only with adequate supports, whether on site or nearby, can home care be used appropriately, long-term care facilities used for those who truly cannot remain in the community and the health care system continue to function, given fiscal constraints and the projected growth of the very old segment of Canada's population. Seniors' buildings are particularly well-suited to respond to the resource availability needs both in urban and rural settings.

INTERDEPENDENCE

To assure the greatest flexibility in the system, an extremely broad range of housing choices must be available to the very old (Muller, 1987). Likewise, to enable the very old the opportunity to age with dignity, there must be a broad range of options so that housing choices can be real choices (Steinhauer, 1981). This conceptual issue most clearly demonstrates the interactive nature of housing the very old; i.e., the interdependence of seniors on the societal system and of the system on seniors. Again, it is worth noting that both the "hard to house" and the cognitively disoriented have limited options and limited capacity to exercise the choices that do exist. Further, the functionally frail tend to forego a range of residential choices in securing services and care to enable them to cope with their physical limitations.

Virtually every chapter in this volume deals with one or more portion(s) of the societal system choices in housing which can and are being made available to the very old. In a sense, this conceptual issue may be viewed as a kind of collective conscience and systems reminder to policy makers as well as to program personnel (Vigoda, 1987).

RESEARCH

Given the broad number of issues, subgroups of the very old, and housing locations that have been discussed and further, given the almost total lack of data available to address these concerns, one can only argue that housing research has not been sufficiently foresighted to provide adequate policy and program guidelines. To enable policy development which is rational and interdependent with seniors' needs and wants and to allow sufficient choices to the very old, research is needed identifying the characteristics and needs of the subgroups of the very old population. Further, research on the full range of elements suggested by this framework must proceed to enable programs to be developed and implemented. Finally, housing options and choices, whether purpose-built or naturally occurring, must be thoroughly evaluated to enable policy and system corrections as the very old population continues its dynamic and ever-changing evolution in a changing world.

Housing related research must become increasingly longitudinal and written in a manner which is accessible to older Canadians, to policy makers, and to program personnel from a very broad spectrum of disciplines (Chappell et al, 1987). Housing the very old is truly a multidisciplinary, multidimensional and multifaceted area of concern within gerontology, within society and within the older population.

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PART II: DESIGNING FOR THE VERY OLD IN INSTITUTIONS

3

DESIGN-RELATED ISSUES AND SOLUTIONS FOR MEETING THE NEEDS OF THE VERY OLD IN INSTITUTIONAL SETTINGS

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INTRODUCTION

Increasingly, institutions serving seniors in congregate care are experiencing the phenomenon known as "aging in place". This phenomenon includes not only the residents of those settings, but the age and appropriateness of the facilities themselves. At the same time, society's expectations about what constitutes appropriate care for seniors in such settings are changing rapidly.

Of particular concern to those responsible for long term care facilities is the frequent mismatch between current philosophy-of-care, and the physical settings in which services are delivered. It has also become apparent that the diverse needs of staff working in these facilities often are unsatisfied, particularly with regard to suitable work and support space.

Issues which are germaine to most existing institutional settings can be broken down into four generic categories as follows:

- Those which are resident related.
- Those which are building related.
- Those which are staff related.
- Those which are organizationally related.

Whether the very old are defined as those aged 75 or 85 years or older, seniors who require institutional care and support are likely to be frail and to have experienced significant loss of mobility. In addition, they will likely be suffering from sensory losses, may be forgetful or confused, and may have co-ordination problems as well as diverse physical health or personal care needs. There may also be

mental disabilities in the area of comprehension and social functioning.

Obviously there are diverse ways of attempting to compensate for these functional limitations and disabilities. For the purposes of this discussion, the focus will be on physical and design-related solutions and not on programming or staffing solutions.

COMMON DESIGN PROBLEMS IN EXISTING FACILITIES

Spatial Organization

Spatial organization tends to be the least understood component of facility design. However, it is often the component that evokes the most frustration and causes the most problems for residents and staff. Across Canada, facilities built between 1955 and 1975 display a number of common characteristics. These include:

- Four and two-bed rooms with little resident storage space and room for manoeuvering wheelchairs or equipment.

- "Gang" washrooms and grouped institutional bathing facilities.

- Little support space for staff use.

- A small amount of lounge space or common area for residents use and little or no space for community activity.

In addition, the sexes are generally segregated and residents may be confined to one wing or area of the building if they are confused.

Environmental Quality

Other problems that are frequently evident include:

- Poor lighting, with insufficient light levels and areas of both shadow and glare. Frequently the initial lighting was from incandescent fixtures that were changed to industrial or commercial fluorescent fixtures which provided a higher level of illumination but created even more glare.

- Poor acoustics as a result of hard finishes on floors, walls and ceilings.

- Poor public address systems which add to auditory confusion.

- Non-responsive heating systems and poor ventilation with no humidity control.

- Dependence on windows for fresh air, humidity and temperature moderation.

Decor and Furnishings

Over the years, most of these institutions have been maintained, renovated or redecorated by a series of personnel, volunteers or outside contractors, many of whom have no professional understanding of the reduced perceptual acuity experienced by seniors. As a result, many of the interiors now include:

- Inappropriate and/or depressing colour schemes.

- Insufficient lighting and few visual aids that assist residents in identifying objects and locations.

- A mixture of standard hospital furniture and older "country cottage" type furnishings, particularly seating, which is inappropriate for seniors and which may have been chosen because it fit within budgetary guidelines at the time of acquisition.

SOLUTION STRATEGIES

In order to provide more supportive settings to accommodate changing philosophies of care as well as the particular needs of the very old, most facilities address limitations in the physical environment by compensatory program development, enhanced staff training and increased use of supplementary aids and devices for residents.

While these strategies are helpful, there is still a significant need to upgrade the physical environment to meet prevailing standards and ensure the provision of appropriate and enabling supportive environments.

Listed below are key areas which need to be improved.

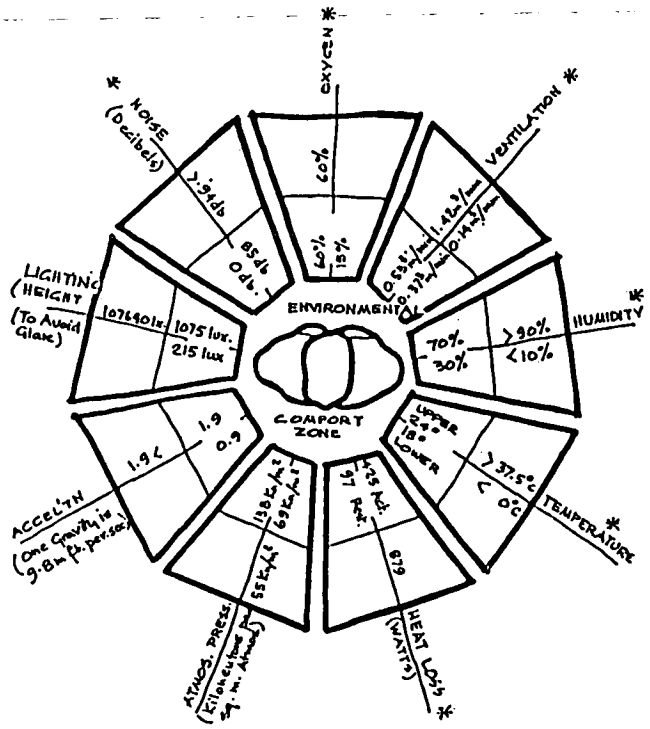
Resident Areas:

- Resident's personal space, (e.g. bedrooms) need to be modified to serve no more than two persons, each of whom should be able to claim territory over part or all of a particular area with sufficient space for his/her belongings, furniture and any equipment that may be required.

- Resident's washrooms and bathing areas require ungrading to ensure privacy of use and appropriate amenities, as well as access by wheelchair users or residents requiring assistance.

- Resident's lounges, activity and dining areas should be expanded to accommodate diverse use, various program options and to enhance sociability. (See Cluff and Campbell, 1975 for further discussion of this topic).

FIGURE 1:
ENVIRONMENTAL TOLERANCE ZONES



Source: Adapted from Dreyfuss (1966) in Cluff (1979)

Staff Support Areas:

- Nursing stations should be extended to accommodate higher staff-to-resident ratios, improved medication preparation areas and space for team conferences and staff training.

- Separate utility areas are needed for handling clean and soiled supplies as well as improved equipment storage.

Building Services:

- Lighting, heating, ventilation, nurse call, public address, fire and emergency safety systems need to be brought into line with prevailing standards (See Figure 1).

Interior Design:

- Floor and wall finishes, colours and textures, and signage need to be modified to ensure user appropriateness, diversity, choice, and as an aid to orientation and normalization. This can be achieved predominantly by reducing "institutional" impact and creating a more humane environment for residents and staff.

Furnishings:

- Resident's and communal furnishings need to be upgraded to more appropriately accommodate the specific physical and psychological needs of the frail and disabled elderly.

Some work can be done with very little capital investment. This includes changes to interior design and furnishings. Modifications to building systems, room sizes and layouts require greater capital commitment and may involve some disruption in service. In addition, a loss in total number of beds in individual units will likely occur. However, the resulting solution is an investment in the long term future of the building and its occupants, as it ensures that both policy and program are complemented by an appropriate physical and social environment.

COLOUR IN CARE FACILITIES FOR THE ELDERLY

One of the easiest changes to make that can result in visible improvement in very short order, is in the area of interior design and furnishings. The first and simplest aspect of interior design to modify is the use and application of colour.

Most people are aware that seniors have reduced visual acuity but few understand their losses in the perception of colour intensity or their reduced ability to differentiate in certain sectors of the colour spectrum. The following points should be considered in developing any colour scheme or interior design concept for the very old. The reader should also refer to the work of L. Snyder Hiatt (1972, 1974, 1984), F. and R. Mahnke (1986) and L.A. Pastalan (1970, 1971).

Hue and Brightness of Colours

Most seniors have difficulty in perceiving colours in the blue end of the spectrum due to yellowing of the lens of the eye. Many also have difficulty differentiating between colours containing a great deal of white, such as beige, light grey, pale blue and pale green. Typically, the very old find it easier to distinguish brighter, more intense colours on the warm side of the spectrum.

Because certain colours have various psychological characteristics, they can be used to create environments that are alternatively stimulating, relaxing, cheerful or subduing. Effects depend on whether warm or cool colours are used and also on their hue* or chroma*. Generally, the use of weak

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*COLOUR TERMINOLOGY:

Chroma: Refers to the depth, intensity or brightness of the colour (see also saturation).

Hue: Refers to the variation in the colour relative to other colours in the spectrum, e.g.: blue may be blue-green (turquoise/aqua) or blue-red (purple) as well as pure blue.

colours (low saturation*) gives the impression of calmness, whereas strong colours (high saturation) make a room appear exciting.

For example, bright reds and oranges (strong chroma) are perceived as stimulating, whereas reds and oranges in moderate chroma are cheerful without being oppressive. Light oranges, yellows and corals are also lively and create the feeling of a responsive and human environment.

A strong green may also be as exciting as red, but light greens and light blues in low or moderate chroma have a retiring effect and are often used to create an environment that is perceived as relaxing and therefore non-threatening.

- White

Although white is clear and crisp, it is emotionally sterile and fails to have much psycho-therapeutic application. Visually, pure white creates glare, constricts the pupil of the eye and gives a foggy quality to vision. Modified whites tinted with yellow or peach are therefore preferred.

- Red

Because of the vibration red sets up in the inner eye, this colour increases feelings of nervous tension and restlessness. Consequently, pure red should be avoided. Modifications of red such as brick red or burnt orange may be suitable in small amounts, in activity or transitional areas.

Saturation: Refers to the amount of pure colour included, e.g.: a fully saturated colour is the most intense colour of its hue.

Tint: Refers to the amount of white (or black) added to the colour to make it paler or darker.

- Purple and Black

These colours are not suitable for large areas because they disturb the focus of the eye. The after-image of purple is a sickly yellow-green. Generally, purple is subduing and black is, of course, depressing.

- Blue

Strong blues are not successful in most care facilities because they tend to be cold and bleak if applied to large areas. Pale blue (tinted with white) is sharply refracted by the lens of the eye and tends to cast a haze over details and objects in the environment. A clear aqua blue is superior and can be suitable, especially in transitional areas where blue in a medium or slightly deeper tone may be used.

- Yellow-Green

The reflection of yellow-green on human skin gives the complexion a sickly pallor. On the other hand, kelly greens or grass greens are particularly useful in well-lit transitional areas such as corridors, or in activity areas such as craft rooms.

Lighting Considerations

Different types of light affect specific colours, some more than others. For example, bluish green in daylight appears yellowish green under incandescent light, and can appear more blue under "cool white" fluorescent tubes.

Generally speaking, seniors require almost twice as much light as the average adult to achieve the same visual result. In addition, that light needs to be evenly distributed to eliminate areas of shadow contrasted with areas of glare.

Most elderly persons have difficulty identifying boundaries of objects such as the location of door hardware, handrails or the edges of steps. Care must therefore be taken to ensure high visual contrast between these elements and the background colour, especially where safety is a concern or where specific tasks need to be accomplished.

Lighting also helps create mood. When high even levels of light are used with warm colours, the result is an environment that appears cheerful and is conducive to activity and alertness. Cool colours with lower levels of light improve the ability to concentrate or relax.

Selecting Colour Schemes

Before any colour selection is made, there are three questions to consider. First, what are the major objectives for the interior design? These objectives should be included in the philosophy of design, which includes a thorough understanding and knowledge of users' needs. Secondly, what procedures should be followed in developing a colour scheme? Thirdly, what are the interests and preferences of the client, including the residents and staff?

One of the most difficult aspects of introducing change in an existing setting is working with "fixed" colours already in place on permanent finishes such as flooring materials and glazed tiles. Usually, changeable components such as paint, wallpaper, drapes or upholstery fabrics, can be introduced to complement "fixed" colours, while meeting the new design objectives.

The following are some recommendations for improvements in specific areas.

Corridors:

These should be attractive, provide orientation clues and reflect an atmosphere of home. Chroma, hue, pattern and amount of variation can be introduced to provide exciting or calming effects. In long corridors, two or more colours should

be considered to break up the apparent length, and as an aid to orientation. If colour coding of corridors is desirable, it should be undertaken on a holistic basis, i.e.: by wings or floors.

Colour coding of resident room doors is generally not recommended, since confused residents may try to enter every door of the same colour which they encounter. However, some differentiation between the wall and door frame or door frame and door is desirable to ensure a clear visual boundary for the doorway.

Residents' Rooms:

To accommodate both the introvert and extrovert temperaments, both cool and warm colour schemes should be developed for residents' rooms. This can be handled by allocating different colour schemes on opposite sides of a corridor where the outside sunlight may have an effect (See Cluff et al, 1988). On northern or eastern exposures, warm colour schemes can compensate for the lack of sunlight. On southern or western exposures, a cool colour scheme can modify the impact of bright or low sunlight.

Each room should have a focus of colour, but care should be taken to ensure that an intense colour or pattern is not constantly in the resident's field of vision, especially where persons are confined to bed for considerable periods.

Particular care should be taken in the selection of patterned wallpaper and drapes, since many patterns are confusing to elderly persons with reduced perception or mental skills. Medications can also alter seniors' perceptions, especially upon waking.

Lounges:

Resident and staff lounges should be visually different from other areas. Wallpaper, vinyl fabrics or textured patterns can help to create a more home-like atmosphere, and provide visual relief from other resident and therapeutic areas.

Dining Areas:

Social settings such as dining areas often benefit from a theme approach which coordinates all aspects of furnishings, colours and place settings. In large dining rooms, separate areas can be created by using screens, plants, partitions or colour differentiation, allowing personal identification with a preferred seating location.

Because dining areas are used three times a day, but only for short periods, the colour scheme should be lively, but appropriate for all types of meal service and under a variety of lighting and seasonal conditions.

Nurses' Stations:

As a central point of activity, it is important that the nurses' station stand apart visually. One way of making it a focal point is to use a distinct colour for the back area of the station. For example, rose, orange, yellow, gold or blue-green, act as good colour orientation aids for residents.

Washrooms and Bathing Areas:

Coral or peach coloured walls will cast a pinkish glow on skin and, with good lighting, can do much to improve the residents' self-image and motivation for grooming and self-care. Cooler shades of blue and green may be less satisfactory.

Therapy and Treatment Areas:

Pale green and aqua are suitable for medically-focussed areas as they give clearer contrast to patients' skin tones and are perceived as both relaxing and non-threatening. However, pale coral or peach are a better choice in locations such as occupational therapy and craft areas where socialization and communication are encouraged.

Floor Coverings:

Caution should be exercised in the selection of carpet and floor colours and it is wise to keep the design simple, without too much pattern or strong colour. Since all floor finishes, colours and patterns appear different under specific lighting conditions, these should be selected with care to avoid glare and provide sufficient contrast between the floor and vertical wall finishes to ensure easy definition of boundaries. Visual contrast should also be included in areas where there are changes of level, such as where ramps are located.

SELECTING FURNISHINGS FOR ELDERLY RESIDENTS

The frail elderly are far less mobile than other members of the population and may also have specific disabilities and physical problems. They spend considerable time sitting and observing various activities, both inside and outside the building. Consequently, the selection of appropriate seating is one of the most crucial aspects of furnishing a seniors' facility. The following criteria should be considered in selecting seating:

Seating Dimensions:

Although the physical dimensions of a semi-ambulant senior may correspond to those of an ambulant individual of comparable age, the range of movement and level of function is more restricted. The following measurements have been found to be critical in ensuring appropriate seating:*

- The seat height should be related to the lower leg length.

- The seat depth should be related to the upper leg length.

*For a description of specific anthropometric considerations related to geriatric seating, see Dreyfus (1966) and Koncelik (1976, 1982).

- The seat width should be related to the hip spread.

- The shape and angle of the chair seat should conform to body weight and distribution patterns.

- The seat back should be related to curvature and length of spine. (Note: this affects the angle of the backrest).

- The armrests should be related to upper arm length in both position and dimension.

Stability

- The chair should not tip sideways when the occupant's weight is concentrated on one arm, or to one side.

- The chair should not tip forwards under pressure of the weight of the occupant on the forward edge of the arms.

- The chair should not tip backwards or sideways when the occupant slumps in the chair or when the back of the chair is grasped by a disabled person as an aid to walking.

- The chair should remain stable when the occupant attempts to rise.

Design/Accessibility

- Chair seats should be at the correct height for the individual user, typically 17 to 18 inches at front. They should be firmly upholstered and close to level, or slope backwards slightly -- no more than one or two inches.

- Back support should be firm and sufficiently high.

- There should be space between the back and seat or sides to allow cigarettes, crumbs or other debris to fall clear.

- Chair arms should only project one inch behond the front legs of the chair -- a greater distance is a hazard to those with perceptual or mobility problems.

- Armrests and handgrips should be easy to grasp, strong and slip-proof. They should be at the correct height for the individual users and placed so that weight can be evenly distributed, to make it easy to get into and out of the chair.

- Arms should be uniform in width to allow the whole length of the arm to rest comfortably and provide adequate cushioning between elbow and wrist for those with poor circulation.

- The legs of the chair need to be straight and well forward to take the considerable downward thrust when a disabled person rises from the chair.

- Legs which are slightly splayed at the back of the chair improve stability. Non-slip ferrules fixed to the legs may help make the chair more stable, but can detract from its general maneuverability.

Appropriateness/Comfort

- Chairs should look home-like and non-institutional.

- Fully upholstered chairs provide comfort and exclude drafts. "Wings" help support the head for dozing.

- Upright chairs are more comfortable for watching television than ones with a more relaxing angle, and those with lower arms are preferable for sewing or knitting.

- Instead of basic waterproof cushions, consider detachable cushions with well-fitting covers. These should be both fireproof and washable.

- Chair upholstery fabrics should be sturdy, patterned fabric, which is smooth but not slippery, clinging, rough or loosely woven. Covers on seats and armrests should be spongeable for easy cleaning.

Supplementary Accessories

Accessories available to equip chairs for the specific needs of the elderly include:

- Clip on trays to fit over the chair arms with space for storing the tray at the side or rear of the chair.

- Supplementary lumbar, neck or wing cushions, seat height or tilt adjustment, ottomans or footrests to suit the individual user.

- Safety belts attachable to the back of the seat to prevent slipping or falls.

- Supplementary or replacement cushions to raise the front edge of the seat and act as a 'passive-restraint' mechanism.

- Crutch and walking stick holders fitted to the sides of the chair.

SUMMARY

This chapter has attempted to clarify those aspects of interior building design which can be easily modified to meet the needs of the very old in institutions, particularly those who are physically frail, perceptually handicapped or confused.

Some of the recommendations include physical and spatial changes in the configuration and relationships of residents' rooms and related support areas. Other recommendations include easy to implement changes, such as the appropriate use of colour and the selection of new seating.

Together, these observations provide a useful analytical tool for evaluating existing settings and initiating desirable changes to optimize the functioning and to ensure the well-being of frail elderly residents in congregate care settings.

Given that we have a heavy investment in existing seniors' facilities, as well as the residents and staff who live and work in these settings, it appears only reasonable that we seek ways in which these settings can be improved at moderate cost, to ensure that the work of the staff is made easier, and the lives of residents more rewarding. Evaluating and improving the physical environment through the judicial use of colour, light and appropriate furnishings is one of the simplest ways to achieve those objectives.

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4

DESIGNING A DEMENTIA RESIDENTIAL CARE UNIT: ADDRESSING COGNITIVE CHANGES WITH THE WESLEY HALL MODEL

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INTRODUCTION

This chapter begins with a description of the characteristics of dementia which make it unique from other disorders and its victims different from other institutionalized older adults. Deriving from these characteristics, a set of requirements for dementia treatment programs are outlined. Some questions which could aid in the evaluation of a dementia program are then presented. The chapter concludes with a description of the Wesley Hall Project,* an example of one housing intervention model. In describing the Wesley Hall Project, particular emphasis is placed on conceptual issues in the design of the physical environment.

While the focus of this chapter is on older people with dementia who are living in institutions, most of what is said can be applied to dementia victims living with family members or in their own homes.

CHARACTERISTICS OF DEMENTIA

Five fundamental characteristics which, in combination, make progressive dementia, particularly Alzheimer's Disease, unique are described below. While not exhaustive, these have

*Staff of the Institute of Gerontology at the University of Michigan who designed and implemented the Wesley Hall Project include Dorothy Coons, Director of Alzheimer Projects, Anne Robinson, Director of the Wesley Hall Project, Beth Spencer, Program Consultant, and Shelly Weaverdyck, Neuropsychology Consultant.

important implications for the development of interventions different from those appropriate to other populations in an institution. Identification of these as key characteristics derives from the authors' clinical experience with dementia populations, supported by reports in the literature (Cohen and Eisdorfer, 1986; Fuld, 1983; Mace and Rabins, 1981).

Cognitive Disorder

Dementia appears to be primarily a cognitive disorder (Corsellis, 1976). Physically, the victim is essentially intact until the later stages unless there is a concomitant physical disability. The dementia victim will usually move about, respond, and in general look nearly normal, particularly if she or he** is well groomed.

Medically, the victim appears to be essentially intact. It generally is not until the advanced stages that medical dysfunctions emerge which require more than minimal medical intervention (beyond medication, for example). Obviously, however, as the victim gets older, there may be an increase in the susceptibility to the chronic disorders common to old age.

Though there may be some lability, even the emotional status of the victim seems to be relatively unaffected (Mace and Rabins, 1981). The ability to sense and react to the emotional tenor of a situation seems usually to be more intact than the ability to cognitively comprehend and articulate the cognitive aspects. An Alzheimer victim's ability to react to the nonverbal or emotional cues but not to the verbal cues of a speaker is one example of this.

Obscured Competencies and Impairments

It is frequently very difficult to determine the exact nature of the dementia victim's abilities and disabilities. On the one hand, as noted above, the person may look quite normal, so that the actual impairments may not be obvious and

**In this paper, the pronouns "she" and "he" will be used interchangeably in reference to the dementia victim.

expectations of the individual may be inappropriately high. On the other hand, either as an observer comes to know the individual or as the disorder progresses, the number and extent of impairments may become so obvious and overwhelming as to nearly obscure any competencies the person may still have.

Usually a person with dementia, particularly in the middle stages of the disorder, seems to be much more impaired than she really is. Caregivers frequently assume, in the face of the obvious and overwhelming disabilities, that the person can not do anything. Since it does not occur to them to look for competencies, these may not be recognized.

Sometimes competencies are not evident because an impairment obscures them. For example, a perceptual disorder could potentially hide an intact ability to learn or to remember. A person may not "remember" where her bedroom is because, being unable to gauge distances or to recognize the spatial position of a landmark relative to herself or to the bedroom door, the information was not recorded in the first place. If her perceptual disability could be accommodated through remediation or compensation, so that the information could actually be recorded in her mind, she may be able to remember how to get to her room (Weaverdyck, in press).

Underestimation of a person's competencies is a serious problem. It reduces respect for the person, and reduces the person's quality of life. Frequently when a person is seen primarily as a set of impairments, she becomes an object in the eyes of the caregiver. For example, staff may hold conversations with other staff while feeding the dementia victim, or thoughtlessly wake the victim up at night with no warning and turn her in bed without speaking.

Progressive Deterioration

At this point in time, there is no cure for Alzheimer's Disease, the major cause of primary dementia. Not only is there no cure, but the dementia gets worse. Deterioration is ultimately inevitable regardless of the intervention. This inevitable deterioration frequently creates staff burnout and

therapeutic nihilism, both of which are formidable obstacles to the development of effective intervention programs. It is important to convey to staff that in psychosocial intervention in dementia, a cure is not the goal. The therapeutic goal, rather, is the improvement of quality of life, including helping the person to feel valued and fulfilled. Further, it is important to recognize momentary, short-lived pleasure as a legitimate therapeutic objective. In many cases, the person retains for a while, the emotional elevation derived from an interaction or event, and may in fact remember, at least unconsciously, her emotional response to a person or event. To be sure, very often the tears or aggression recur as quickly as the elicited smiles. While it can be very difficult for a caregiver to avoid searching for permanent gains in affect or skill function as a result of an intervention program, simply an increase in the frequency of smiles may be an operational goal worth working towards.

Environmental Dependency

A person in the middle stages of dementia and beyond, seems more often to react to the environment than to act on or consciously try to influence it (Lezak, 1983; Weaverdyck, 1987). He generally does not evaluate or discriminate among stimuli which confront him. He simply responds to the most powerful stimulus (whether internal or external) he experiences. For example, if understimulated, he probably will not recognize or be able to articulate that he is bored or sensory deprived. Instead, he may become restless or perhaps angry. He does not try to problem solve by, for example, planning an activity to relieve boredom.

As the dementia progresses, the person becomes increasingly dependent upon the environment for information regarding expectations of him, and for the impetus for his own behavior. There is usually little self-monitoring or judgment and, therefore, control or initiation on his part. He often can not intentionally alter his own behaviors. He may simply let the environment tell him what to do and what to say.

This increasing dependency on the environment occurs at the same time that the sensoriperceptual changes of normal aging and of dementia are occurring, so that the quality of perception of, and therefore information gained from, the environment may be affected (Hiatt, 1986).

Reliance on Overlearned Skills, Information and Contexts

With progressive dementia, particularly Alzheimer's Disease, there tends to be an increasing reliance on overlearned skills, behaviors, and information, and on familiar contexts and expectations (Fuld, 1983; Weaverdyck, 1987). Frequently, complex skills or sets of skills which are routinized or very familiar, such as dressing, can be successfully performed even with severely impaired cognitive functioning, if the routine is initiated and allowed to proceed uninterrupted. In some cases simple reminder cues may be all that is necessary.

Another example of reliance on overlearned information, is the apparently intact social skills of many people with dementia. Frequently, a visitor meeting a person with moderate dementia for the first time, is surprised to discover the dementia after some minutes of light conversation, because the individual seemed to talk and behave so "normally" (i.e., socially acceptably). It often requires alert observation to detect the inability of the person to tailor the social chit chat to the immediate situation. Usually the conversation and behavior consists of standardized and overlearned (i.e., automatic) social cliches.

REQUIREMENTS OF A DEMENTIA SPECIALIZED CARE PROGRAM

We believe there are at least four fundamental characteristics of a program which are necessary, in order to be specialized for the care and/or treatment of persons with dementia. These are: 1) flexibility and versatility, 2) extensive and sophisticated nonmedical intervention and care, 3) regular assessment of individuals and of contributing factors external to the individual, and 4) familiarity and congruity.

Flexibility and Versatility

A program which is flexible and versatile is critical, we believe, in accommodating to the changes inherent in the dementing disorder. These changes are both quantitative and qualitative and frequently involve fluctuation in moods and abilities. Variety within the program is also essential to accommodate the idiosyncratic nature of dementia (Mayeux and Rosen, 1983). Interindividual differences among the victims of dementia are great due to the diversity of symptomatology, as well as to the existence of other concomitant conditions or disorders which interact with the dementia. These concomitant conditions could include other medical disorders or factors such as the loss of a spouse, depression, and sensory changes. All such factors must be addressed in an intervention program.

As the dementia progresses, the environment (physical, emotional, social and intellectual) will play an increasingly prominent role in the functioning of the individual. It must become increasingly supportive and informative. It must tailor its methods of supporting or informing to accommodate the individual's cognitive changes. For example, as the person's ability to think abstractly becomes progressively impaired, cues in the environment may be informative only as they become progressively concrete. Such environmental adaptations may be accomplished either through a series of progressively supportive "step-down" residential units, through which an individual moves as he deteriorates, or through changes to the residential unit in which he continues to reside.

Just as a healthy, nondemented person experiences mood and preference shifts, so may a person with dementia. An environment can spatially and temporally provide for such shifts by having a variety of living spaces available, such as a cozy den when one needs quiet time and a bright, active living room when one wants stimulation.

This same variety, flexibility and versatility must be available in programming as well as in the environment.

There should be opportunities provided for many different activities and appropriate flexibility of scheduling.

Staff should be trained to be flexible and versatile in their interactions with dementia victims. They must first be encouraged to see the dementia victim as an individual, not as a disease state, and as a person with many competencies, not simply a set of impairments. They must also be trained to discriminate among the various types of impairment. Because of the idiosyncratic and fluctuating nature of the disorder, staff should have available a variety of approaches and response styles, that is, a practiced repertoire from which to draw in any given situation. Staff should be educated to recognize and to react, with creativity and innovation, to changes and to the somewhat unpredictable nature of functioning, behaviors, and moods found in dementia.

Such flexibility and innovation on the part of staff require much energy and ingenuity. The lack of flexibility may be a major factor in staff fatigue or burnout (Hoffman, Platt and Barry, 1987).

Staff may be more effective and versatile if they feel they have a significant amount of responsibility and power. Versatility is also enhanced if the care or intervention team is interdisciplinary, and if the team members support and communicate with each other.

Extensive and Sophisticated Nonmedical Intervention

Because the primary manifestation of dementia resides in the affected individual's cognitive functioning, it is the cognitive functioning and its subsequent ramifications which must be addressed in an intervention program. The psychological or psychosocial orientation of an intervention program, from the assessments to the intervention design and implementation, becomes extremely critical to the success of the intervention.

Staff must be educated to understand that while Alzheimer's Disease and other dementias are characterized as progressively debilitating disorders (Katzman, Terry & Bick, 1978) and some changes in behavior and skill levels, resulting

directly from the underlying brain pathology, do not seem to be reversible, many apparent disabilities seem to be environmentally induced and thus are potentially reversible or remediable. (Brody et al, 1974; Weaverdyck, 1987).

Assessment of Individuals and of Contributing Factors

In an attempt to answer the question why certain behaviors (desirable or undesirable) or certain impairments exist in an individual (and therefore, how they can be addressed through intervention), four factors must be assessed: (1) the environment (physical, emotional, social and intellectual), (2) the task characteristics or demands on which competencies and impairments are demonstrated, (3) staff or caregiver characteristics including their interactions with the individual, and, (4) the individual herself (Weaverdyck, in press). If this is done, the assumption that the dementia is the cause of all behaviors is avoided, which in turn, helps to avoid therapeutic nihilism (Reisberg, Borentein, Franssen, et al., 1986).

The individual must be assessed regularly for changes in the nature and extent of his cognitive functioning, for changes in his competencies, for changes in his affective states (including the onset of an accompanying depression), and for changes in his medical status (particularly for acute disorders which may mimic or exacerbate the dementia).

Regular monitoring, analysis, and modification of task demands is critical to the successful and independent accomplishment of activities of daily living and other tasks. Each task which the individual encounters or is encouraged to undertake, should be analyzed for its level and type of complexity and for its number and type of task steps (a model for the analysis of task complexity in dementia is proposed by Weaverdyck, in press). Identification of the task steps which the individual successfully and unsuccessfully executes can suggest subsequent modification of expectations, extent and type of assistance offered, or modification of the structure of the task (e.g., when cues need to be provided, or steps eliminated or modified).

Familiarity and Congruity

It was suggested above that in dementia there is an increasing reliance on familiarity of contexts and on overlearned skills and information. That being so, it is important to make the person's environment and life routines as familiar and congruent with her own past as possible.

This includes making caregiver expectations regarding behaviors and roles congruent with environmental signals and cues. For example, the conditions under which an individual brushes her teeth or combs her hair must be in front of a sink in the bathroom or dressing table in the bedroom, as has been the case throughout most of her life.

An example of a misinterpretation of environmental cues, resulting from incongruency between cues and expectations, occurred in a long term care facility (not the Wesley Hall Project) in which the first author was conducting some cognitive assessments. A small group of persons with dementia were sitting around a table handling small blocks. A staff person came in and put bibs on each of the group members in preparation for lunch. Immediately nearly all members began putting the blocks into their mouths. Instead of relying on their reasoning and memory to dissociate the blocks from the bibs, they responded to the bibs as an environmental cue and began to "eat".

EVALUATION OF A DEMENTIA SPECIALIZED CARE PROGRAM

In evaluating a dementia program, it is important (Koff, 1986) to ascertain the extent to which the requirements articulated above are being met. In doing so, questions (Koff and Weaverdyck, 1987) that might be asked include:

1) How well does the environment stimulate, inform, cue at correct times, support, and compensate for the idiosyncratic functioning of each individual? To what extent and in what way does the environment change to accommodate changes in each individual's needs,

desires, and resources? Does the environment provide options from which to choose? How are those options made visible or comprehensible to individuals? Are the changes and options provided effective in reducing confusion or do they exacerbate it?

2) To what extent is programming therapeutic, rather than simply recreational, entertaining, or diversionary? How are competencies identified and cognitive changes assessed and addressed? How individualized is the program? How are individual needs assessed and addressed? How are competencies and resources within the individual utilized? How is each individual's potential realized and enhanced?

3) Is there an active and ongoing support system for staff? Does the staff training foster flexibility and innovation? How are staff educated with respect to new facts and insights regarding dementia? Are staff versatile, flexible and respectful toward the individual with dementia? How is staff morale maintained? What is the staff turnover rate?

These general issues will be explored further and in a more concrete context in the next section which describes the Wesley Hall Model.

THE WESLEY HALL MODEL

The Wesley Hall Model derives from a pilot project called the Wesley Hall Project.

The Wesley Hall Project was a two year project which included the design and implementation of a residential dementia unit for eleven ambulatory persons with moderate progressive dementia. It was conducted by the University of Michigan Institute of Gerontology with the Chelsea United Methodist Retirement Home in Chelsea, Michigan. The unit opened its doors in December, 1983.

The project housed nine women and two men. One man, aged 67, had a diagnosis of viral encephalitis. All others were

in their seventies and eighties and had a diagnosis of Alzheimer's Disease and/or Multi-Infarct Dementia.

All residents were severely impaired, as evidenced by their performance on the Kahn, Goldfarb et al (1960) Mental Status Questionnaire (all scored 8 to 10 errors), Green and Fink's (1954) Face-Hand Test, the Katz et al (1963) Activities of Daily Living Index and other neuropsychological measures. The residents of Wesley Hall were very confused and disoriented. They were unable to function in the retirement home from which they had come without substantial assistance. Their impairments included way finding difficulty, combativeness, withdrawal, paranoia, grooming impairments, incontinence and other problems common to dementia (Coons, 1987).

Wesley Hall occupied a wing on the fourth floor of the Chelsea United Methodist Retirement Home in Chelsea, Michigan. The retirement home had 159 residents on a 26 acre campus. The campus also had some apartments for independent living and a 110 bed facility for intermediate and skilled nursing care. The administrator estimated that approximately 10% of the retirement home residents were too impaired to function effectively there and were, in fact, causing some severe problems among the cognitively intact residents. She asked for assistance from the Institute of Gerontology.

The Institute of Gerontology staff saw this request as an opportunity to create and refine various psychosocial intervention techniques.

Criteria for admission to Wesley Hall were as follows:

- must be ambulatory
- must be able to feed self (sloppy eating, or the necessity of soft finger food did not preclude admission)
- must be experiencing severe memory loss
- requires no more than minimal medical care (medication or small acute disorders were allowed)
- can manage some self-care with assistance
- can follow very simple instructions (i.e., not totally aphasic)

Virtually all residents were private pay. The cost per day to the resident, in 1985 U.S. dollars, was $42.65. This was half way between the cost of the nursing home in that facility ($60.00 a day) and the retirement home ($29.70) a day .

Programming

In the Wesley Hall Model, programming is designed to reflect as much as possible the various activities and routines typically incorporated in each resident's life prior to entering the dementia program and prior to the onset of her dementia.

Particularly encouraged were spontaneity and flexible schedules which seemed, in the Wesley Hall Project, to help avert many of the negative behaviors (such as wandering, combativeness, and paranoia) frequently encountered in dementia.

In the Wesley Hall Project, Activities of Daily Living (ADL) were a major focus in the morning. Interventions concentrated on the enhancement of independence on self care tasks, such as dressing, grooming, and bathing, and on housekeeping tasks, such as dusting and making beds.

Residents usually napped or interacted with each other and staff on a one-to-one basis in the early afternoon. In late afternoon, more structured group activities were planned. The most active group programming took place in early evening. Group activities included discussion groups, parties, games, snacks, towel folding, and volunteer projects, such as stuffing envelopes. Sometimes, particularly in the early months of the project, baking, bathing, and visiting occurred in the middle of the night, in response to night wandering or restlessness (Robinson and Weaverdyck, 1986).

While there were group interventions, the Wesley Hall Project specialized in individualized interventions. The past life style of each individual was carefully noted by staff. Foods, schedules, and activities were all tailored to accommodate individual needs, preferences, and skills. Two primary components of the individualized interventions were: (1) the modification of activities or tasks based on

assessments of each individual's competencies and deficits, and (2) the development of a repetoire of carefully considered approaches to be used in any given situation with a particular individual.

As indicated earlier in this chapter, an individual's ability to perform a given task was assessed in part, by breaking the task into component steps and observing the person perform each step. The task steps which were difficult for the individual were then modified, eliminated, or performed for him in order to maximize his independent execution of the task (Weaverdyck, 1987).

The role of staff was recognized as crucial to the residents' level of functioning and to the presence or absence of "problem" behaviors, such as combativeness and wandering. Staff were trained to assess the situations in which "problem" behaviors occurred. This included identifying events occurring just prior to the incident, the specific people involved, and the individual's reactions or behaviors. As a team, staff then developed and practiced a repertoire of approaches or responses to use in similar situations. This repertoire included humor, cajoling, diversion, gentle firmness, withdrawal, affection, slowing down, affirmation, and altering the words or body language in their communication (Coons and Weaverdyck, 1986). Particular emphasis was placed on the elimination of "bossy" or controlling verbal and nonverbal staff behaviors.

Staffing

Staff morale and enthusiasm are a primary focus in the Wesley Hall Model. The assumption is that if the direct care staff have a sense of responsibility and ownership of the program, they will be more energetic and committed to the work of assessment, intervention development, and intervention implementation. They will also be better able to manage the emotional and physical fatigue which frequently accompanies the care of persons with dementia. A strong sense of teamwork and a lateral versus a horizontal line of authority are emphasized as much as possible.

In the Wesley Hall Project, there was one full-time coordinator who worked primarily on day shifts. In addition, there were one and a half full-time resident assistants on the day and afternoon shifts, and one full-time assistant at night. A housekeeper worked sixteen hours a week on the unit. Nursing services were available from the nursing center in the facility. All staff were permanently assigned to specific shifts on the unit.

Staff training consisted of one month of sessions prior to the opening of the unit. Training then continued throughout the two years with weekly staff meetings, periodic inservice training, and extensive modeling by training staff, as well as frequent one-to-one consultation with staff. (See Coons, 1987b for a more detailed discussion of staff training).

Environment

The social environment is considered to be of particular importance in the Wesley Hall Model. The atmosphere in the Wesley Hall Project was intended to be, as much as possible, like that of a family living at home. Staff wore no uniforms and the typical accoutrements of professional staff, such as briefcases and dressy garb were discouraged. Staff were instructed to relate to residents more as peers or friends than as parents or guardians.

Schedules for sleeping, waking, eating breakfast, and bathing were flexible to accommodate individual and day-to-day preferences. Opportunities to fill various social roles, such as cook, cleaner, volunteer, friend and host were fostered. Special accommodations were also made for private time and space.

A sense of relaxation, with appropriate levels and variety of stimulation was fostered. The Wesley Hall Project did not attempt to create a "low stimulus" environment, but rather opportunities for a choice of both passive and engaging stimulation. The presence of engaging diversionary stimulation seemed to be a major factor in reducing restlessness and withdrawal (Coons, 1987).

Extensive remodeling of the physical environment was conducted, but the essential layout of the floor plan (built in 1907) remained. There was one long hall with private bedrooms on each side, a cozy den at one end of the hall, and a slightly larger bright living room at the other end. Adjoining the living room was a dining area which led into a small kitchen equipped with all the usual appliances, including a stove, refrigerator, coffee maker, popcorn maker, etc. As much as possible, the Wesley Hall Project was a home, with necessary safety features (such as staff controlled timers on the oven and stove burners) added. Restrooms were located on either side of the hall toward the den area.

As described below, in designing the physical environment, changes in both normal aging and in dementia were considered (See Coons, 1987; Coons et al., 1987 and Friedman and Robinson, 1986 for more specifics regarding rationale and visual depictions of the physical environment in the Wesley Hall Project.)

SPECIAL ISSUES IN DESIGNING THE PHYSICAL ENVIRONMENT

A well designed physical environment for cognitively impaired persons has the potential of compensating for impairments and facilitating orientation. A personalized environment that takes into account individual differences and allows for expression of competence can create a sense of ownership among residents that helps to reduce much of the stress and feelings of alienation that exist in many treatment settings (Coons et al., 1987). This section will focus upon special issues in the design of the physical environment and how these were addressed in the Wesley Hall Project.

Size: Small, Manageable, and Intimate

The size of the unit is important in attempting to reduce stress. Persons with Alzheimer's Disease have much difficulty coping with large space and large numbers of people. The resulting stress triggers many of the behaviors such as disorientation, anxiety, combativeness and pacing that characterize the disease.

Small units housing from ten to twenty people have a far greater potential for offering a homelike and manageable environment than do larger units that require a commensurately higher staffing pattern. A small unit, if well designed and carefully cued, can be negotiated by even very impaired persons. Institutions that are attempting to care for large numbers of dementia victims can provide appropriate therapeutic settings by establishing a series of small graded units in which the interventions in the physical environment, staff approaches, and opportunities for involvement are adjusted to accommodate the variations in impairment from one population to another (Coons, 1987).

Easily Accessible and Visible Space

If impaired persons are to use their environment effectively, public areas must be easily visible. Public rooms that are removed from private space and from the walking patterns of residents not only may be difficult to locate, but they may seem uninviting or even like forbidden territory. In the Wesley Hall Project residents were often drawn into an activity that was taking place in the living room because they could see and hear the reactions of others who were involved.

Variations in Room Environments and Interior Design

Color and interior design can create a room that is inviting and responsive to individual moods. For example, the den in Wesley Hall was a warm and rather quiet area where residents occasionally went to sit alone or take a nap in one of the comfortable chairs. The living room, on the other hand, was bright and colorful and was the centre for many activities and socializing. Moveable furniture was used to change the seating and decor of a room for variety, individualization or for special activities.

Single Occupancy Rooms

The question of whether to provide single or double bedrooms is a controversial and complex one. Financial concerns are often the deciding factor, but other arguments

are used to justify decisions for multiple occupancy rooms. For example, some policy makers insist that persons with dementia need the companionship of another resident. Others argue that housing an intact person with an impaired person enables the alert person to assist the frailer roommate and to serve as a model for appropriate behavior.

Some of the most unsatisfactory placements in nursing homes have involved the pairing of an intact individual with an impaired one. For the alert person, it can be exceedingly stressful, especially if the roommate is a stranger. The situation can be equally disturbing for the impaired person who is often able to sense rejection.

In the Wesley Hall Project, each resident had a private room. It was thus possible for each room to be furnished with personal furniture and other cherished possessions that helped the individual have a sense of ownership and a continuity with her earlier life. Having a private room also gave each person the option of seeking out a friend or a group activity or spending time alone.

Visual Cues for Stimulation and Orientation

The monotony of some institutional settings can create feelings of dependency, hopelessness, and depression. Visual stimulation, if carefully planned, can be an effective means by which residents can maintain contact and interact with their environment in positive ways. Bright accessories, large appealing pictures, and tastefully selected wallpaper can add a wide variety of visual stimulation (Lawton, 1981).

Problems of orientation can be the cause of much frustration and agitated wandering in memory impaired persons. Directional signs are helpful if the person can still comprehend written words.

As the person with dementia becomes progressively concrete in thinking and comprehension, abstract or symbolic cues like an identifying color on a door should be avoided. Repeating patterns which have no inherently meaningful or distinguishing qualities (e.g., halls which are spokes

emanating from a nursing station or common area) can also be very disorienting.

In the Wesley Hall Project, large directional signs with white evenly spaced upper and lower case letters on a dark brown matte background were posted as an aid to orientation.

Multiple concrete cues were used to help residents locate their rooms. A wooden plaque with a colored photograph and his first name was placed to the left of each resident's door. Decorations were also placed on the door itself, to reflect the occupant's former employment.

Signs were also used on dresser drawers and kitchen cupboards to help residents locate items.

Accommodations for Sensory Loss and Spatial Problems

Sensory loss is often a difficult problem among the elderly; it can be handicapping to alert persons as well as those with dementia. Persons with hearing loss may be considered out-of-touch or disoriented when in reality, they may simply be unable to hear and, therefore, comprehend what is going on around them. The elderly with visual problems are especially vulnerable in poorly lit areas or areas with glare (Hiatt, 1980, 1981).

Lowered ceilings with accoustical tile and increased lighting can change a dark, tunnel-like hallway into an inviting and clearly visible walkway. For best results, lighting should come from several sources. Sunlight needs to be controlled to avoid blinding glare.

Carpeting can help to mute sounds as well as create a more homelike environment. Specially treated low napped carpeting can be easily cleaned if there are problems with incontinence and can offer firm footing to help avoid tripping or falling.

Elderly persons with visual problems are often unable to distinguish one pastel color from another or dark colors from

each other. Basic colors--reds, greens, blues, and yellow--if used tastefully and with restraint are appealing and more easily visible.

Some cognitively impaired persons seem unable to locate an item that appears to staff to be clearly visible. There may be a variety of reasons for such a disability. It may be they cannot see the item, or they no longer have a visual image of it and therefore cannot identify it, or they are unable to locate it in space. There may be other reasons (Weaverdyck, 1987; Wolanin & Phillips, 1981).

Contrasting colors can sometimes be helpful, such as toilets contrasting with the floor and walls, or sinks contrasting with countertops. In the dining room at Wesley Hall, brightly colored table mats were used in contrast with white plates with colored borders. Dark baseboards helped to identify the point at which the floor ended and the wall began.

Availability of Materials, Equipment and Space

If residents are to function in normal social roles and have opportunities to continue involvement in overlearned tasks, they need to have access to essential materials and equipment. The Wesley Hall Project had a small kitchen in which, with the help of staff, many residents were able to prepare snacks and wash and dry dishes.

Some residents shared tasks of bed making, vacuuming and dusting with the housekeeper.

Safety Without Confinement

One of the greatest challenges of treatment settings is to devise ways to ensure safety and still allow impaired persons to move about as they choose. Physical restraints and medication are too frequently seen as the only solutions. Restraints are not only a humiliating practice, but they often increase agitation and prevent persons from getting the healthful exercise they need.

increase agitation and prevent persons from getting the healthful exercise they need.

The Wesley Hall Project was an unlocked area. To camouflage the two exit doors, they were painted the same color as the surrounding walls. Most of the time this served as a deterrent to those who were inclined to wander.

To ensure safety in the kitchen, switches were installed on the stove and oven so that they could not be turned on without the supervision of staff, and each was equipped with a timer so that they would automatically shut off after an allotted time.

Elimination of Reminders of Illness

There was no nurses' station, staff room nor office in Wesley Hall. Staff used a small desk in the kitchen or the dining room tables when writing their reports. Such items as a nursing station, nurses uniforms, locked areas, and an intercom system are all signals to residents and staff that they are in a treatment setting and that staff are in control. The supportive physical environment, in contrast, focusses on wellness and encourages individuals to use their remaining capacities, to enjoy life, and to make decisions to the extent they are able.

SUMMARY

This chapter identified clinical characteristics which, in combination, make dementia a disorder different from other disorders commonly encountered in the nursing home. It identified a number of requirements for residential treatment programs and questions that can be used in evaluating them. Finally a description of the Wesley Hall Project was presented followed by a brief examination of some conceptual issues important to the physical design of a residential dementia care unit.

While the issues identified above are complex, they should be considered in future design of housing for very old persons with dementia.

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PART III: ALTERNATIVE MODELS FOR MEETING THE HOUSING NEEDS OF THE VERY OLD LIVING IN THE COMMUNITY

5

THE SMALL CONGREGATE HOME

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INTRODUCTION

The housing option discussed in this paper is intended to fit into the gap between total independent living and institutionalization. It is a "supported" independent living alternative which provides the level of services required for the slightly, mildly, or moderately impaired elderly. These are healthy but frail elderly who are at risk of premature institutionalization or of suffering greater impairment, but who, with some support, can postpone the need for institutionalization. The housing model that is being examined has two key characteristics that make it particularly interesting as an alternative choice in the housing options available for the elderly:

1. It is small scale. From a practical point of view, this means that the home can be established privately on a volunteer basis. It also means that the costs must be manageable and the admininstration relatively simple. This does not, however, preclude the possibility of funding assistance from public sources. An added advantage is that the home can fit into an existing family neighbourhood without disruption.

2. It is not a health care facility. It is not licensed as such and does not operate under health care regulations. The care that is provided does not require the services of health care professionals. On the other hand, a small group of elderly people sharing a home allows the efficient provision of home care services.

The attractive potential of this kind of housing has prompted us to look at examples found outside of Canada. This paper draws from the experience of the Abbeyfield Society in the United Kingdom and Australia, and from the small scale congregate homes in the United States.

Both theoretical and practical examples for the design development of the concept are presented.

Since cost considerations are usually the practical arbiter for what can and will actually be developed, some information regarding cost is also presented. This information includes some theoretical approaches to understanding the essential relationship between income and costs as well as actual figures from a Canadian example of this kind of housing.

In the concluding section, an attempt is made to summarize the vision of the small supported independent living alternative in the continuum of housing for the elderly and to indicate the first hurdles that must be surmounted in order to make this a real option for Canadian elderly to consider.

CHARACTERISTICS OF THE MODEL

The Abbeyfield Society of England is credited with developing the concept. It began as the result of two individuals observing the need of some lonely people for companionship, and responding with the simple solution of providing them, and a few others like them, with a house. Over a period of 35 years, a large organization of associated societies has developed committed to one set of goals and an established formula for delivering housing to small groups of elderly.

The Society's purpose is to provide the elderly with their own home within the security and companionship of small households, which can become focal points for goodwill and friendly contact within the community.

The following pattern has been evolved to achieve this purpose:

- In all areas, wherever there is a need, a local Abbeyfield Society is set up which has full local responsibility for opening and maintaining Abbyfield houses;

- The residents are usually drawn from communities in which the Houses are situated;
- Loneliness is a primary consideration in the selection of residents;
- Residents have rooms of their own, furnish them as they wish and look after them;
- The privacy of each resident's room is respected but visits from relatives, friends and neighbours are encouraged;
- Each resident pays his or her share of the full running costs of the house;
- A housekeeper residing in each house cares for the residents, runs the house and provides and prepares the main meals;
- Local clergy and ministers are made aware of the house and given the opportunity to visit as in an ordinary home. Any arrangements for services or prayers within the house are made in accordance with the wishes of the residents.

The Australian Model

In Australia, the National Society was established in 1981 to research and establish goals and objectives modeled on the United Kingdom Society. The basic objective and formula for housing the elderly in small family-style homes was adopted, but the organizational structure was modified to better suit Australian needs and lifestyle. In 1983, the first state society was set up in Victoria. In 1985, when the organizational structure was firmly in place, the first local Abbeyfield Society opened a house in Melbourne.

Two kinds of Abbeyfield Houses are now found in Australia: the standard type is owned by the Society; the other type requires that the residents have a considerable ownership interest.

Design elements recommended by the Australian National Society (Dunster, 1986) are as follows:

- A building of domestic scale (an ordinary home on an ordinary street).

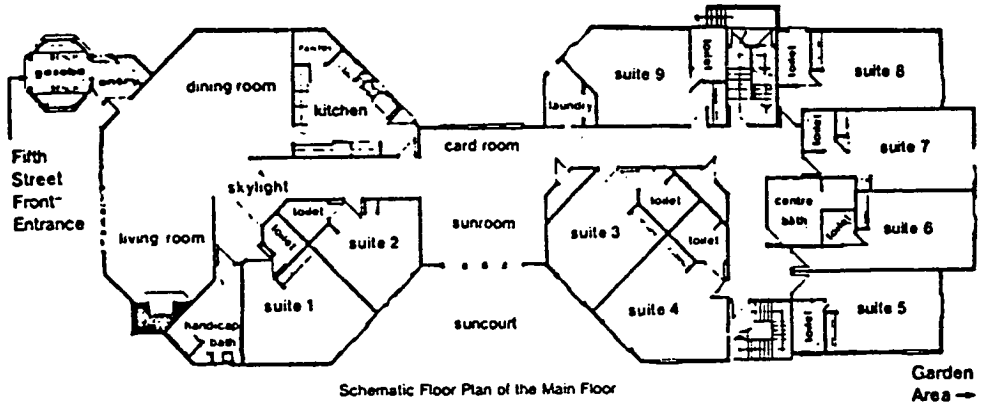
- Residents' private spaces, consisting of bed sitting room, ensuite toilet with shower or bath, and a cupboard type kitchen (for preparation of a light breakfast and tea).
- Common areas (shared).
- Large kitchen accessible to all (where communal meals are prepared).
- Guest room.
- Housekeeper's quarters.

Abbeyfield Canada

The Abbeyfield concept has caught the imagination of concerned people in many parts of the world. Affiliated societies have been established in Ireland, South Africa, the Netherlands, and most recently in Canada. The Canadian National Abbeyfield Society, headquartered in Toronto, is directly associated with the parent society in the United Kingdom. In addition, there are a number of local societies, five of which are in British Columbia where there is currently a move to establish a regional society. In Canada, as in Australia, each province or state is responsible for regulating and delivering the housing. The regulations, and the social and funding programs differ widely from province to province. For this reason, the regional societies represent the Abbeyfield interest at that jurisdictional level. The local societies represent the Abbeyfield interest at the municipal level as well as develop and provide on-going support of the individual homes.

The first Abbeyfield home in Canada, St. Andrew's, was opened in the late Spring of 1987 in Sidney, British Columbia. This home is closely modeled on the British Abbeyfield concept and program. It is a purpose-built house for nine residents. All live on the main floor. The second floor contains a housekeeper's suite, guest room as well as additional storage space for the residents. The housekeeper was employed by the St. Andrew's Abbeyfield Society to manage the daily life in the house and see that two meals are served in the common dining room each day. As shown in Figure 1, the residents each have their own bed sitting room and private toilet and hand basin in a separate powder room. Everyone has free use of the two sitting rooms, the dining

FIGURE 1:
SCHEMATIC FLOOR PLAN OF THE MAIN FLOOR
ST. ANDREW'S ABBEYFIELD HOUSE,
9682 THIRD STREET,
SIDNEY, B.C.



Source: St. Andrew's Abbeyfield Housing Society.

room and the kitchen. After the first few months, the St. Andrew's residents declare themselves most fortunate to have a comfortable home amongst a group of new and warm friends.

Congregate Housing in the U.S.

In the United States, the introduction of the small scale congregate home for the elderly has been independent of the Abbeyfield movement. It followed on the observation that sharing and mutual support among the elderly was a naturally occurring phenomenon.

The congregate home has many forms so it cannot be as concisely defined as the Abbeyfield pattern. The alternative option of "Shared" housing merges with congregate housing at one end of the scale where the requirement for support from outside sources is very minor.

There are a multitude of organizations that sponsor the small supported home being developed in the United States. Some are an arm of an established organization of another type such as a church, some are locally based groups like the Shared Housing Organization in Philadelphia. These sponsor organizations and their members are affiliated through national associations such as the American Association for Housing the Aging or the American Association for Retired Persons.

DESIGN CONSIDERATIONS

Among the examples of the small supported homes that were visited, there was wide variation. It would seem that we are presuming a concept rather than a model housing type. The essence of the concept is better described as a lifestyle than as a building. What we strive to understand is the necessary characteristics of the shelter that will foster companionship (to relieve loneliness), mutual support (to reinforce the sense of self worth) and choice (to preserve independence). The 7 characteristics suggested by the examples studied are the following:

1. It is small scale so that it is not complex or cumbersome to manage.
2. It is actively involved with its community so that a sense of belonging is maintained.
3. There is a support organization that provides continuity, usually through ownership, has legal responsibility for the house, gives administrative support, and supplies volunteer help as needed.
4. It provides a context for a family lifestyle, with mutual and interdependent support, care, and enjoyment amongst the residents.
5. There is a resident "house person" to oversee the preparation of meals and general operation of the home.
6. There is private space for exclusive use of each resident and shared space for all to use as desired and with consideration for the others.
7. Financially, it is self sustaining and non-profit.

These characteristics support a lifestyle that is challenging but not overburdening for the frail elderly residents. The most appropriate form of the shelter for this lifestyle is dependent on the particular situation of the people, the location, and the resources available. One key aspect of the concept is flexibility so that it can be adapted to a wide variety of situations. Secondly, it must be able to accommodate to the changes required by an aging group of residents.

In their book, *Housing for the Elderly*, Heumann and Boldy (1982) propose a model describing small scale housing for the elderly using 3 contextual variables: 1) support services 2) shared space and 3) the number of residents. These three variables define the dimensions of flexibility for the small congregate that in the planning can respond to community values and resources.

The potential for variation in support services according to the individual residents' requirements is possibly the critical dimension with respect to changes required due to aging. The service dimension is measured by both internal and external criteria. Ideally, the internal measure is gauged to individual need so as to promote independence rather than develop dependence. The external measure is related to effective targeting of the services to specific need. This is in contrast to the institutional approach where services tend to be applied across the board, regardless of need (Heumann, 1985).

In the United States, the question of the best size for a congregate home tends to refer to the criteria of cost effectiveness. This results in a recommended size of from 100 to 200 residents. These tend to be the purpose-built facilities. The smaller congregate homes, from 4 to 40 residents, are those that are individually sponsored by community associations or are located in an existing small scale building. In an interview with P. Baxter, of Boston Aging Concerns (BAC), it was suggested that the appropriate number is not a finite group size but rather is related to the number of people using shared facilities. As an example, Baxter described plans for a new home being developed by BAC in Newton, Massachusetts. This will be a home for 32 people but it will be arranged so that five residents share a kitchen and two residents share a toilet and basin. The experience of this organization is that where too many people share a facility they tend to lose a sense of belonging to the whole house and the feeling of freedom to move amongst the common spaces.

Much attention has been given to the arrangement of spaces in the congregate home. Cram (1985) suggests that the bedrooms not be too large, and in the common areas that several smaller sized rooms are better than one or two large rooms. He recommends that as many bathrooms as possible be within, or private to the bedrooms, that shower or bath should be separate from the toilets, and that there should be individual personal storage space for toilet articles in any shared bathrooms. Many storage areas about the house are recommended by several sources; so is a big kitchen with plenty of counter space and storage. The kitchen should be big

enough to accommodate several people at a time, possibly with a walker or in a wheelchair. It is suggested that a nook to accommodate informal meals be located adjacent to the kitchen.

Control of their own personal space is especially important to congregate residents (Mollica et al, 1984). Almost everyone entertains family or friends in their rooms which will have several sitting areas no matter how small. Where cooking facilities are not provided in the rooms, residents have installed small refrigerators, toaster ovens, and electric coffee pots. Even where there are no cooking utensils there is always a shelf or table with snacks. It was noted on a visit to St. Andrews's in Sidney, B.C. that long and narrow resident's rooms as opposed to a more square shape had greater potential to be arranged with separate areas devoted to certain use (i.e., sitting, sleeping, eating).

It is generally accepted that the congregate home should present itself as a good quality residential setting. A 'home like' character in the finishes and the furniture, plus variation in the form of the rooms helps to avoid an institutional feeling. Arrangements that make it convenient to come and go, and provide access to frequently used places both inside and outside the house, and to cars or taxis, are thoughtful features to help the elderly who might have mobility problems.

Aging dims sight and diminishes colour perception so that lighting and the use of colour needs special attention. This is especially true where safety is involved.

In an interview with C. Zidel, the administrator of Trilling House in Massachusetts, it was suggested that the emergency call cord in each unit would be much more effective if it also unlocked the door to the unit, so that people answering a call for help could enter without breaking the door.

People tend to become more easily confused as they grow older. A house should therefore be arranged so that it is interesting but not confusing for them.

Barrier free design can be convenient for everyone to use, but it needs to be designed to promote independence.

The elderly vary widely in their sensitivity to hot and cold. The location of thermostats in the house therefore becomes an important consideration. Experience has shown that there should either be a thermostat in each room or one only for the house but never one shared between two bedrooms. It is easier to negotiate with a group than to resolve a conflict between two persons (Mollica et al, 1985).

The environment of the house will have an influence on the interaction between the people living there. "At home" means being in control of sharing and privacy (Welch, Parker and Zeisel, 1984). A good balance must be maintained between shared and private space. Common areas can be decentralized to encourage flow and the crossing of paths. Informal gathering places can be arranged so that "previewing" is made possible and informal drop-in socializing encouraged.

The chapter on design in *Independence Through Interdependence* by Welch, Parker and Zeisel (1984), gives some very good insight into the kind of attention that is needed in the design of congregate homes. The booklet called *The Do-Able Renewable Home*, by J.P.S. Salmen, AIA (1985) for the American Association of Retired Persons, provides the information needed to make the home more livable for those who develop limitations in movement, strength, dexterity, eye sight, or hearing. This booklet provides good clear illustrations of the features it describes.

COST CONSIDERATIONS

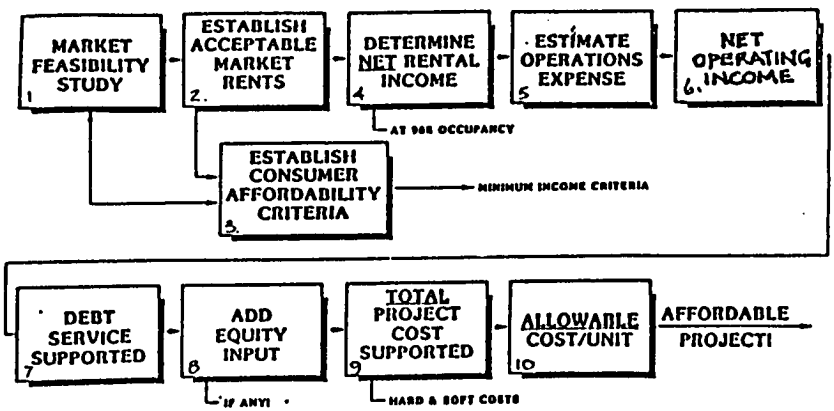
The congregate home is typically rental accomodation and because it is a special kind of rental for the aging, it tends to be less sensitive to the local market and to cost more than conventional units. Yet, from the individual resident's point of

view, there are economies -- in sharing costs for a housekeeper who provides some personal support services, and especially where the house is run as a family home with access to volunteer assistance. However, there is always the question of how much prospective residents can be expected to pay. The amount will vary in each local market, but it is important to get as clear an indication as possible in the planning stage. That amount will determine what a sponsor group can afford to spend in establishing the house. One caution is the observation that the survival of a congregate home depends on more money coming in than going out. It must be anticipated that providing housing for older persons is inevitably a situation of rising costs versus diminishing assets. As improved quality of living extends life expectancy it also stretches financial resources, and it is difficult to approach a person on fixed income for repeated increases in rent.

A reasonable assessment of affordability must approach the question from two directions: *needs* and *market*. As explained by Brink (1985), need arises from the physical and social support required by the resident which may best be served by a change in housing.

The Consumer Affordability Model (Moore, 1987), represented in Figure 2, provides a useful guide, based on the developer's market approach to assessing affordability on a market basis. There is a logical sequence of relationships and dependencies that flow from the beginning point of Figure 2. The top row, cells 2, 4, 5 and 6, represent the income or cash flow stream. The net operating income (cell 6) is derived from the acceptable market rents times the number of expected residents, multiplied by a factor which is introduced to compensate for times when the home is not fully occupied less the estimated cost for running the house, which includes repairs and maintenance costs. This represents the funds that will be available monthly to pay the mortgage (cell 7).

FIGURE 2:
CONSUMER AFFORDABILITY MODEL



Source: Moore Diversified Services Inc.

The bottom row, cells 7-10, represents the project development costs stream. The mortgage, or "debt service" (cell 7) is an indication of the amount of money that can be borrowed. The money borrowed plus any equity that is available for the project is the upper limit of funds that will be available to develop the home. The "total project cost that is supported" (cell 9) is the amount that can be spent to develop the home based on the estimated net operating income. Dividing the total cost by the number of proposed residents who will be paying the rent identified in cell 2 generates the allowable cost per unit identified in cell 10.

Thus, one arrives at what kind of home can be provided for the rent that is being paid and whether that will be reasonable value for the money.

The middle of the diagram (cell 3), represents the source of the monthly income to support the project. The portion of this that must be contributed by the resident will indicate the regular income needed to be able to pay the necessary rent. This model can also work in the opposite direction. If the costs to develop the project are known, then the required net operating income can be calculated. Continuing on this reverse course through the model, the rents that would have to be charged in order to generate the required income can then be determined and affordability assessed in relation to the potential residents' estimated income from whatever sources are available to them.

In order to "establish consumer affordability criteria", (cell 3) where *public funding* is involved, it is necessary to differentiate between shelter costs and daily operating costs. The British Columbia Housing Management Commission, in its *1986 Non-Profit Society Agreement*, makes a clear distinction between housing, or "basic shelter costs", and operating cost relative to the care and personal services provided an individual (which are expressly excluded from basic shelter costs). The definition of the shelter component in item 1(15) is as follows:

'shelter component' means the components of residential accommodation related to space used for living, sleeping, eating, food preparation and sanitary facilities, either shared or otherwise, and amenities space approved by the Commission which may be shared with other occupants of the project, and the land or proportionate amount thereof on which such sheltered component is situated.

For government funded housing "acceptable market rents" (cell 2) should be replaced by "economic rent". This is exactly the rent required to meet the full shelter component amortization and operating expenses, including certain specified reserves.

One point at issue in British Columbia concerns the intention of a small congregate home to provide the range of services necessary for independent living at differing levels of impairment. In such a house the basic level of service is provided by a *live-in* housekeeper or manager. The live-in support is integral to the Abbeyfield-type congregate home. It was unsuccessfully argued that the shelter component for the elderly at St. Andrew's Abbeyfield in Sidney, B.C. should include the living quarters for the housekeeper. On the other hand, the salary paid to the resident housekeeper or the manager was considered by all as an operating cost related to the care and personal services provided to the residents.

The property cost is the most significant single factor among the capital costs to establish a congregate home. Property costs reflect the main difference between different locations. Land costs must be compatible with the market rents that are typical in an area. Construction costs are project specific, depending on whether the house will be built new or be a renovation of an existing building. Construction cost will also depend on the quality and character of the home.

Debt servicing represents a significant portion of the costs that must be absorbed in the rents paid by the residents. For the small scale community sponsored project, special effort must be made to keep the capital acquisition costs low. Grants are best used for this purpose and fund raising drives to raise funds for a down payment are a worthwhile effort. In this regard, there is also the question of whether to buy or lease a property. The implications of buying are a high initial purchase price in the short term and the buildup of equity and confidence in the long term. The implications of leasing are low initial cost with the possibility of rent increases in the long term.

A sponsor group is encouraged to investigate all forms of creative financing at the earliest possible stage in putting together a congregate housing project. Possible sources of funds include the residents themselves. A large proportion of the elderly population (63% in Canada in 1981) own their own homes. Potential residents may be moving out of a home

where they own the full equity. The sale of a former house can make funds available for an entry fee into congregate housing. In lieu of paying full rent, residents who are financially able could be asked to purchase shares in a society or corporation that will be the owner of the congregate home. The opportunity for residents to purchase may make the switch to congregate living more attractive to the homeowner who is more comfortable with a "vested interest" in the home (Baker, 1987).

To gain a perspective of the range of affordability for the supported independent living alternative, it should be noted that at Trilling House near Boston, with 155 units and full professional management staff, the 1987 monthly charges ranged from $635 to $752 (U.S. Funds). There is no entry fee but the rental charges include only the unit and heat. Everything else including the meals, parking, telephone, TV, etc. are additional fees. On the other hand, in the two homes sponsored by the Boston Aging Concerns Inc., with 14 and 26 residents, the rents ranged between $150 and $415 depending on the size and amenities of the private room. In these houses, the rents are set to cover just the cost of running the house. Each resident buys his/her own food and there is no in-house staff.

Continuing care facilities in the United States (U.S. Funds), such as The Baptist Home facility, Thomas House, in Washington, D.C. which has 200 housing units and a 50 bed nursing unit, typically have two types of payment schemes. One has a small entry fee of $2,500 plus a monthly rent of from $900 to $1,200. The second option for payment is a large entry fee of anywhere from $20,000 to $200,000 plus a smaller monthly rent of from $600 to $700. The higher end of the entry fee scale often is accompanied with a refund option. The continuing care type facility guarantees a life time tenancy, and so include nursing care beds within the complex. At fee levels quoted above, there is limited service provided. Usually one meal a day and transportation with the option of other added services at an extra cost.

The St. Andrew's Abbeyfield Housing Society in Sidney, B.C. provides current cost information in the Canadian context.

As shown in Table 1, St. Andrew's has received assistance from several public sources.

TABLE 1:
SOURCES OF FUNDING, ST. ANDREW'S ABBEYFIELD HOME, SIDNEY, B.C.

St. Andrew's - some of which raised by debentures & others by gifts	$25,000.00
Provincial Secretary (BC Lottery)	10,000.00
Anglican Foundation	10,000.00
Provincial Ministry of Health	30,000.00
	$75,000.00
Mortgage - secured by Housing Management Commission - approx.	$300,000.00
TOTAL FUNDS	$375,000.00

The mortgage has been arranged to run for 35 years and financing has been projected so the total costs of the home will be paid for out of rentals and the Society (non-profit) will end up owning both the land and the building.

Table 2 shows St. Andrew's capital costs.

TABLE 2:

CAPITAL COSTS, ST. ANDREW'S ABBEYFIELD HOME, SIDNEY, B.C.

CAPITAL COSTS (Shelter component)	
Construction	$300,000
Contingency	20,000
Total	$320,000
Housekeeper Suite	$(30,000)
Guest Room	(10,000)
Construction Costs Net of Housekeeper Suite & Guest Room	$280,000
Land Costs (including Legal, Mortgage Fees, etc.)	$68,058
Architect Fees	22,000
Interest During Construction (for $330,000 at 12% for 4 months)	7,720
Others (Brochures, Mailing, Advertisements, Taxes & Insurance during Construction, Legal Charges)	3,353
Total Capital Costs (excluding Housekeeper Suite & Guest Room)	$381,131

Total Monthly Shelter Cost per resident works out at just over $700. The St. Andrew's Society is committed to paying the monthly share for the housekeeper's and guest rooms.

Monthly operating costs at St. Andrew's are shown in Table 3.

TABLE 3:

MONTHLY OPERATING COST (BASIC CARE COMPONENT), ST. ANDREW'S ABBEYFIELD HOME, SIDNEY, B.C.

Housekeeper's Salary & Benefits	$1,377
Helper	270
Board	2,025
Housekeeping	
TV	
Administration	270
Total	$3,942

Per Resident = $438/month

It can be expected that over time, as the residents become increasingly impaired and more services are required, daily operating costs will increase. The kind of support needed for the mildly and moderately impaired in Brink's (1985) model, will initially fall on the housekeeper and on the volunteer support group. B.C. Continuing Care Program services will be available to the residents as their needs increase. These services are provided to individuals, not a household. Need is determined by the local unit of the Provincial Continuing Care Program. Any Canadian citizen or landed immigrant who has been resident in British Columbia for at least a year is eligible for services. Some services, such as homemakers, are means tested. There is no user charge, however, if an individual's monthly income falls below a certain level.

Because of the Continuing Care program, costs associated with increasing levels of impairment will be much less in British Columbia than in other locations. In all locations, however, some rise in cost associated with special needs, such as dietary and mobility aids such as walkers, should be

included in planning. Inflationary cost should also be anticipated in setting the rents and establishing the operating budget.

In the market approach to assessing the affordability of a congregate project there are other factors that affect the marketability of the project besides the cost. According to Jim Moore, of Moore Diversified Services Inc., of Fort Worth, Texas who specializes in the problems of failing retirement housing in the United States, these include difficulties arising from an unrealistic assumption about the size of the market based on demographics. It must be realized that this is a flow-through market and quickly satiated. Where the market is not properly identified, the housing may be incorrectly targeted. The team working to develop the housing must be experienced so it can effectively meet budget and schedule. If the design does not meet the residents' physical requirements or provide the desired mix of facilities, and if the location is difficult or inappropriate, the project can be difficult to rent and keep filled. These potential problems need to be carefully researched at the outset because they are very difficult to correct once the project is in place.

In addition to the operational costs, Moore's research and experience suggests several other factors that may be critical to the operational success of a congregate home. Most importantly, it must be expected that few if any elderly people like the idea of moving, so there is serious market resistance. To overcome this requires education and sensitive marketing. Prospective residents should have as clear an understanding of the congregate lifestyle as possible so that their expectations will not be misplaced. On the other hand, the operation of the home must be responsive to needs of its residents so that services are delivered as they are needed but not in excess.

Costs of Congregate Housing vs Institutionalization

A thoroughly researched reference on the costs of congregate housing versus institutional care is provided in *A Cost Comparison of Congregate Housing and Long Term Care Facilities in the Mid West* (Heumann, 1985). This study examines capital costs, in terms of debt financing and of facility replacement costs, as well as operating costs, including staff, food and service costs but not private personal expenses. Heumann concludes that there is a substantial per resident saving in the overall costs for congregate housing over the institution. Heumann also observed that the savings were associated with a major gain in the quality of living.

SUMMARY AND CONCLUSIONS

This paper has considered the concept of a small family-type home for a group of seniors where there will be basic support to maintain an independent lifestyle and postpone the need to enter an institution. The home will have a resident housekeeper and the support of a non-profit society. The support provided by the home does not extend to health care.

It is not intended to suggest that this kind of home is suitable for everyone. In Canada, some 10% of the elderly population is institutionalized. In the United States, where only 5% of the elderly are in nursing homes, it is estimated 40% don't need that level of care (Elliott, 1985). This group would benefit from moving to a supported independent setting. Real Estate analysts (Bogorad et al, 1985) suggest that the market for this type of housing is possibly not more than 3% of the age and income qualified residents in any particular market area who are not already in some form of seniors' accommodation. Market analyst, Tracey Lux Francis was quoted in an 1987 American Association for Retired Persons Housing Report as stating, "Retirement housing is not demand driven and not perceived as adverse product. When you think you need it, it is too late."

Parker (personal communication), in her 1984 research in the Boston area, found that the people who actually move into small congregates are likely to be in a transition position with a crisis driven decision to move. This confirms the condition of need rather than demand for this kind of housing. The American Association of Retired Persons (1980) found that as people aged they were less interested in moving and more satisfied with their present living conditions even though that might be of unsatisfactory standard. This position was confirmed for us during the interviews we held while studying the possible Canadian model. The respondents in our study were active members of the seniors community who did not foresee the possibility of their own need for supported housing.

One of the reasons it is difficult to get older people to consider the small congregate or Abbeyfield type alternative is that the concept is an unfamiliar one in North America and certainly in Canada. It is very difficult for anyone to respond positively to an idea that is outside their range of experience. The newness of the concept requires a carefully planned educational promotion to potential residents and to the communities in which these homes will be located. There is the 35 year precedent of the Abbeyfield Society to fall back on. The success of this Society is an excellent example.

As indicated in Shimizu's chapter in this volume, in recent years the Abbeyfield Society of England has moved into a new phase in the homes it provides. After the first 25 years experience with their homes for the lonely elderly, the Society found that it had to deal with the situation of some very elderly residents needing more care than could be provided in the homes as they were. This led to the development of the Abbeyfield Extra Care Homes.

The Extra Care Homes are slightly larger, housing 20 instead of 10 residents. They provide a modest amount of health care with one resident professional nurse and two or three paraprofessional assistants.

It would appear from the widespread interest in establishing local Abbeyfield Societies and other non-profit societies with similar objectives that this type of small supported home for the independent elderly is very timely. If it is to be successful, all levels of government will need to recognize the concept and become actively committed to supporting its development. This support includes a review of the definition of key words such as **dwelling** and **family**. Regulations that limit operating flexibility, fix building form, and restrict the selection of residents must be reviewed. Close cooperation between Housing, Health, and Social Service Agencies is essential. Interdepartmental and intergovernmental coordination will greatly increase the effective targeting of services and the potential cost benefit of this form of volunteer supported housing.

It is most important to realize that congregate housing for the elderly such as Abbeyfield, is dependent on reliable on-going support from a sponsor group, from funding sources and from service organizations. Changes in government policies and a cut back in delivery programs could be devastating to the vulnerable elderly residents who have minimum ability to adjust to new situations and challenges that upset their lifestyle.

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6

THE ABBEYFIELD MODEL

Kiyoshi Shimizu, B.A., Dip. S.W.

HISTORY

One of the small congregate models for providing housing for the very old which is currently attracting attention in Canada, is the Abbeyfield House, a concept developed in the United Kingdom.

Abbeyfield was the name of the street in a depressed area of South London, where a minister of the church and an army officer turned social worker met. In 1956 they established a home for five old people from the area in a house owned by one of them, and called it an Abbeyfield House. Later ones were purchased with mortgage loans which were paid out of the pooled income of the residents.

The Abbeyfield model aims to provide family-sized houses for small numbers of lonely elderly people who do not wish, or are no longer able, to continue living on their own but who do not need or want the degree of support afforded by a home for the aged, or a large personal care residence.

In 1959 a national society was formed in the United Kingdom to assist local societies in their efforts to replicate the Abbeyfield model. Today there are 1000 such homes in the U.K. under the auspices of 600 local societies with 10,000 volunteers caring for 9,000 very old people. The Abbeyfield movement has also spread to Australia, Holland, the Republic of Ireland, South Africa, as well as Canada.*

*The National Office of the Abbeyfield Society in the United Kingdom is located at 186 - 192 Darkes Lane, Potters Bar, Hertfordshire EN6 1AB.

The address of the Abbeyfield Houses Society of Canada is 401 Bay Street, P.O. Box 7, Toronto, Ontario, M5H 2Y4.

DESCRIPTION OF AN ABBEYFIELD HOUSE

A typical Abbeyfield House accommodates six to nine residents with a live-in housekeeper. Two meals per day are provided in a home-like environment in which residents are encouraged to remain as independent as possible and retain personal privacy in their own unit.

Each resident has a bed-sitting room which he/she furnished and looks after. In the United Kingdom most rooms are equipped with a unit which combines a sink, hot plate, and a small refrigerator so that the occupant can make breakfast and snacks. The mid-day and evening meals are prepared and served by the housekeeper in a communal dining room, which in most houses is combined with a lounge area. The residents share central bathrooms and lavatories. A utility room with laundry facilities for the use of residents may be available, depending on how recently the house was established.

The newer houses have a completely separate apartment for the housekeeper and a guest room, which may be used by the relief housekeeper, by a potential resident for a trial period, by family members from out-of-town, or in some of the resort areas, by vacationing Abbeyfield residents.

Various ethnic groups have affiliated with local societies or the national society to provide small scale homes for the very old in their communities. For example, there is a Polish House located in a newly built housing project in an area of London with a Polish Catholic Church and Community Centre. Two Servite Sisters from Poland live in as staff, and Polish is the language used daily. In this house the guest room is being used as a chapel.

In another area of London the Abbeyfield Harrow Society manages a house in which the residents are second generation Polish and Russian Jews. English is the language in daily use, with a liberal sprinkling of Yiddish expressions. Jewish traditions are observed in the preparation of meals.

ROLE OF THE HOUSEKEEPER

The housekeeper is the key figure in the successful operation of an Abbeyfield House. The national office staff devote considerable time to publishing a special bulletin to keep the housekeepers in touch with each other. As well, there are publications to assist House Committee members, with guidelines on how to recruit, train and provide back-up to the housekeeper.

The housekeeper's main responsibilities are to do the shopping and the cooking of the main meals of the day and to look after the communal parts of the house, with part-time help. In addition, she must be a friend to each of the residents, and to use her own judgement about when to call on the members of the House Committee for help. The right sort of housekeeper makes the house very much her own, and her personality influences the whole operation.

ROLE OF THE HOUSE COMMITTEE

Abbeyfield Houses are "ordinary houses on ordinary streets" managed by the part-time, volunteer efforts of 10 to 20 responsible people from the community who make up the House Committee. The House Committee is part of a local society which may have only one house or several. The largest society in the United Kingdom operates 24 houses in Edinburgh, but half own only one house. Each society is autonomous, but affiliation with the national Abbeyfield Society enables the local group to share their experiences with all other groups. Bulletins and newsletters keep societies in touch with each other. From time to time the national office issues special publications based on research studies, to provide stimulation and challenges (examples: *The Lights are Green*; *The Quality of Life in Abbeyfield*).

Aside from maintaining the house in good order, members of the House Committee provide back-up to the housekeeper when a resident requires special attention. They screen new applicants and keep family members or sponsors informed of any changes. As well, they recruit volunteers to provide one-to-one support or arrange special events.

A good working relationship between the housekeeper and members of the House Committee is essential for the smooth running of the house.

EXTRA CARE HOMES

Over the years, as residents in the first Abbeyfield Houses have become older and more frail, some have required more care than the typical house could provide. One or more of many medical conditions may have contributed to this situation such as lack of mobility, blindness, incontinence to name the most frequent reasons why residents move to extra care. In the United Kingdom there are now 29 Abbeyfield Extra Care Homes. One, to the south of London in Farnham, was opened about a year ago. It houses 25 persons, two of whom require a wheelchair to move about. As the home was built with wider doors and hallways, an elevator, special lifts in the bathrooms as well as adjustable counters in the residents' rooms, the wheelchair bound residents are able to cope readily inside the home. Care is provided around the clock by personal care staff. They are supervised by two qualified nurses who have separate apartments in the home. With only 25 residents the atmosphere is more home-like than institutional.

In attempting to define extra care, the British Abbeyfield Society, in a publication entitled *Understanding Extra Care*, identified the following levels of need and corresponding resident characteristics:

TABLE 1:
INTERVAL METHOD OF MEASURING POTENTIAL NEED

GRADE OF SEVERITY	TYPE OF RESIDENT AND HELP REQUIRED
Long interval need	Help needed at intervals of 24 hours or more. Patient can walk indoors, use WC, boil kettle but unable to do domestic work or shopping.
Short interval need	Help needed 2, 3, or 4 times daily, not capable of making food but can go to WC.
Critical interval need	Help needed for all activities of daily living. Unable to walk to WC and use it without help. Able to be left for short intervals.

Depending upon the staff resources and volunteer help available, a typical Abbeyfield House might reasonably expect to deal with residents who have long or short interval needs. Extra care need, met in Abbeyfield Extra Care Homes, tends to equate to the grade of critical interval need. Acute illness would be dealt with by a general hospital and senile dementia by a chronic care institution.

The Abbeyfield experience has been that nearly two-thirds of residents in Extra Care Houses die in their own beds. It is felt that it is informed caring, rather than skilled professional nursing, which enables this to happen. The professional nurse as a staff supervisor, or coming into the home as a district nurse as she might to a family home, does however make a major contribution. Medical supervision of all residents by a local G.P. or group practice is also an essential component.

FINDINGS FROM A SURVEY OF ABBEYFIELD HOUSES

In 1978, following a period of rapid growth in Abbeyfield Houses in the United Kingdom, the Society's Commission on

Growth hired an independent institute for social research to conduct a survey of residents and housekeepers.

According to Morton-Williams (1979), the objectives of the residents' survey were to find out what sort of people became residents, how they came into Abbeyfield, and to investigate their views on life in Abbeyfield, including their relations with other residents, the housekeeper and the House Committee. The objectives with regard to the housekeepers' survey were to obtain information about their background, experience and qualifications, and about their views of their job.

At the time of the survey, there were 738 Abbeyfield houses in the United Kingdom sponsored by 446 local societies and providing accommodation for 5250 residents. Houses in Scotland and Northern Ireland were deleted from the sampling frame since circumstances and legislation were different from the rest of the United Kingdom. A total of 100 houses were selected on a stratified random basis from the 558 houses operated by 282 societies located in England and Wales. At each house the housekeeper and two or three residents were interviewed for a total sample of 100 housekeepers and 255 residents. Interviews lasted about 50 minutes.

Characteristics of the houses and residents surveyed

The majority (73%) of the houses surveyed were converted properties. A further 17% were conversions with an extension added. Only 8% were purpose built. Two-thirds had been opened between 1960 and 1970. About half the houses were mainly financed by local authority mortgages, 18% by gifts, bequests and fund raising, 14% by building society mortgages, 12% by housing association grants, and the rest by other means. (Note: Housing association grants were not available until the 70's).

The houses in the sample contained from 4 to 15 rooms for residents. The average number of possible residents per house was 7.2. The majority of the houses (64%) had both male and female residents, but 79% of all residents were women. Most of the residents (83%) were 75 years of age or older and a third were 85 or older.

Housekeepers' views

Job satisfaction seemed to be high among housekeepers. Less than a third failed to give the highest rating. Those less than completely satisfied with their job tended to have been in it less than a year and to be working for a one-house society. Those who liked their job "very much" were likely to have had previous experience with older people, to be very satisfied with their accommodation and to feel that they were well supported by the House Committee, who saw that they had sufficient help about the house and gave them the right amount of authority for spending money and hiring staff. It also seemed that housekeepers who were able to keep their separateness from the residents and to resist being drawn into supplying extra services, tended to be happier in their work than others.

Residents' views

Residents were asked for personal background details, about how they came to Abbeyfield as well as for their views about living there.

A measure of socio-economic status was obtained by categorizing main occupation or occupation of husband. Compared with those aged 65 and over interviewed in the 1976 General Household Survey, the Abbeyfield population had a higher proportion of middle class people, especially of those whose jobs were in the managerial, professional and employer category. In total, 82% of the residents interviewed were willing and able to say within broad bands what their income was. 76% had an income which brought them within the supplementary benefit rate.

The average age at entrance was 77 whereas the average age at the time of the interview was 81. Two-thirds of the residents had been living alone just before they came to Abbeyfield. About half (48%) came from within two miles; two-thirds (65%) from within five miles. There was often a triggering factor that led to the elderly person coming to Abbeyfield, such as a recent bereavement (15%), illness (11%),

crisis with accommodation (11%) or financial crisis (8%), but for many a gradually deteriorating state of physical or emotional well-being led to their move to the Abbeyfield House.

The charges to residents varied considerably with single house societies tending to charge less. As one would expect, there was an association between housekeeper's salary and charges to residents. Residents in low income groups paid less than those in higher income groups. A majority (61%) thought they received very good value for their money.

The survey indicated that Abbeyfield was largely succeeding in its objectives in that it provided a viable way of life for elderly people who would otherwise be lonely, have difficulty managing their own lives in the community, or would have to enter a home for the aged or a large personal care residence. Most of them were happy, felt that they were maintaining a certain amount of independence, and were neither lonely nor bored.

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Additional information was obtained from Mr. John Wotton, Abroad Officer for the Abbeyfield Society, during a four day visit when the writer stayed as a guest in the Southgate Abbeyfield House, just outside London, England.

7

HOUSING FOR INNER-CITY, HARD-TO-HOUSE VETERANS: THE VETERANS MEMORIAL MANOR

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INTRODUCTION

"Hard-to-house" is a term commonly used to describe those who chronically experience difficulties in securing and retaining accommodation due to financial, behavioural or hygiene problems.

This paper describes an example of housing developed specifically for elderly, hard-to-house veterans residing in the downtown eastside "skid-row" area of Vancouver.

Some of the problems and conditions which led to the decision to build this facility are examined. This is followed by a description of the facility and the characteristics of a sample of residents.

BACKGROUND

The living conditions of the hard-to-house in Vancouver's downtown eastside have been a social concern for many years. Studies in the early 1970's (e.g. Levens, 1973) indicated that the population was essentially male (78.7%) and likely to be unemployed, handicapped or elderly. Twenty five to thirty percent of the adult population was considered to be alcoholic or heavy drinkers. Five major problem areas were identified:

1. Health and personal care problems.
2. Nutritional deficiencies particularly among alcoholic and elderly groups.
3. Problems of income and assistance.

*The authors wish to thank Troy Riskie, Betty Paulos, Stuart Nurse and the Administrators of the Veterans Manor for their assistance in conducting interviews and collecting data. Thanks also to Mary MacEachern for her invaluable research.

4. Lack of recreational and occupational facilities.
5. Inadequate accommodation and shelter.

Other cross sectional studies documented the chronic abuse of health and social systems by inner city residents. For example, a brief prepared by the Triage Advisory Committee in 1983 estimated that 125 people were costing society $5,100,000.00 per year in emergency services such as ambulance, police, social worker and emergency hospital services. Not only was the cost of this abuse high in terms of dollars but it did not solve the problem. Individuals were not receiving the ongoing care they needed and were prevented from obtaining integration into community services due to the lack of appropriate housing.

A significant number of veterans has resided in the downtown core for many years. This area was a natural terminus for many who were once employed in resource and marine industries. Others come to areas of this type because of itinerant work, poverty, mental disability or alcoholism (Doolin, 1985). Having known this area for much of their adult lives, these men live on here into old age, often in substandard accommodation.

In the mid-1970's, approximately 500 difficult-to-house veterans were of special concern to the B.C. Region of the Veterans Affairs Department. Of this number, 175 were considered hard-core alcoholics. The majority lived in Vancouver's downtown eastside. These clients had a combination of difficulties - alcoholism, inability to handle money, mental problems and a lack of personal hygiene. As a result, these clients' funds were "administered" by the Department. This means that their funds were held in trust and managed on their behalf. Benefit cheques were issued on a weekly or semi-monthly basis. Often, payments were made on their behalf for rooms and meals. In many cases the veterans had asked to be "administered". However, the best efforts to carry out the mandate of serving the health and social welfare needs of these veterans were frustrated due to the lack of adequate housing. Improvement in the well-being of older people cannot be achieved by medical means and social services alone. It is dependent also upon appropriate

and affordable shelter (Beggs, 1979; Oberlander and Fallick, 1987).

Housing initiatives were undertaken by the City of Vancouver, Provincial Health authorities and other agencies in the late 1970's. Later studies indicated that these measures had a substantial impact on the housing problem. Some hard-to-house veterans found suitable accommodation as new facilities became available. However, a Veterans Affairs study in 1984 (MacEachern) indicated that approximately 1,000 veterans resided in the downtown eastside. Nearly 200 of them were "administered" by the Veterans Affairs Department. Many were still living in marginal housing and impoverished conditions. The average rent for a sleeping/housekeeping room was $205 in December, 1984 (McCririck, 1985).

Although Veterans Affairs and others had worked hard over the years to provide adequate assistance to difficult-to-house veterans, significant improvement was not possible without appropriate housing. Representatives of the Royal Canadian Legion, the Army, Navy and Air Force Veterans Association and Veterans Affairs recognized that something had to be done to provide housing for these men. It was decided that the only practical response was to create a non-profit society and obtain the support of federal, provincial and municipal governments for funding and land. An organization called the Veterans Memorial Housing Society was incorporated under the Societies Act of B.C. in June, 1984.

Recognizing that housing planners should seek a high level of similarity between old and new environments (Eckert, 1983), the main objective of the Society was to provide acceptable housing in the area where the veterans had always lived, i.e. in the downtown eastside. This affordable housing would also enable the residents to benefit from other social services which had not been available to them in the past. Homemaker services, for instance, could not easily be supplied to veterans in run-down hotels or to those who kept getting evicted. It was also determined that to be successful, certain ancillary services should be incorporated into the shelter program. These services would include food, personal

hygiene, laundry service and a supervised delousing and fumigating service.

It was known that the City of Vancouver, together with the Provincial Government, provided an outstanding service at what was called "Club 44". Club 44, in 1984, served 700 to 800 subsidized meals a day, had recreation rooms, did laundry and dry cleaning, supplied facilities for bathing and supervised a delousing and fumigating service. It was a survival net for this population. The Veterans Memorial Society discovered, however, that Club 44 was located in cramped quarters in an older building and operations were inhibited by the lack of space. The question was asked, could the proposed new shelter and Club 44 co-locate? Co-location would do three things. First, given more space Club 44 would be able to provide the 1000 meals per day they needed to provide in order to reach their break even point. Second, it would bring to the men in the housing project the food and health programs they required. Third, the services would be greatly enhanced with Club 44 working out of appropriate accommodations.

Recognizing that housing alone could not meet the needs of the hard-to-house, and the benefits that a combined program would bring, the Society proceeded with four main activities:

1. a feasibility study and a functional program were launched;
2. contacts were made with Canada Mortgage and Housing Corporation (CMHC);
3. three possible sites were surveyed and contact was made with the City of Vancouver, regarding purchase and lease-back of property; and
4. negotiations were begun to include "Club 44" within the facility.

In January, 1985, architects experienced in social housing were invited to submit proposals to the Society. By May, the project had received CMHC approval for a $60,300 fund to bring it up to a stage where a mortgage commitment could be made. By September, all architectural, landscaping and related drawings and plans were submitted to CMHC. Once

revisions were made, the project went to tender and the construction process began in November, 1985.

VETERANS MANOR

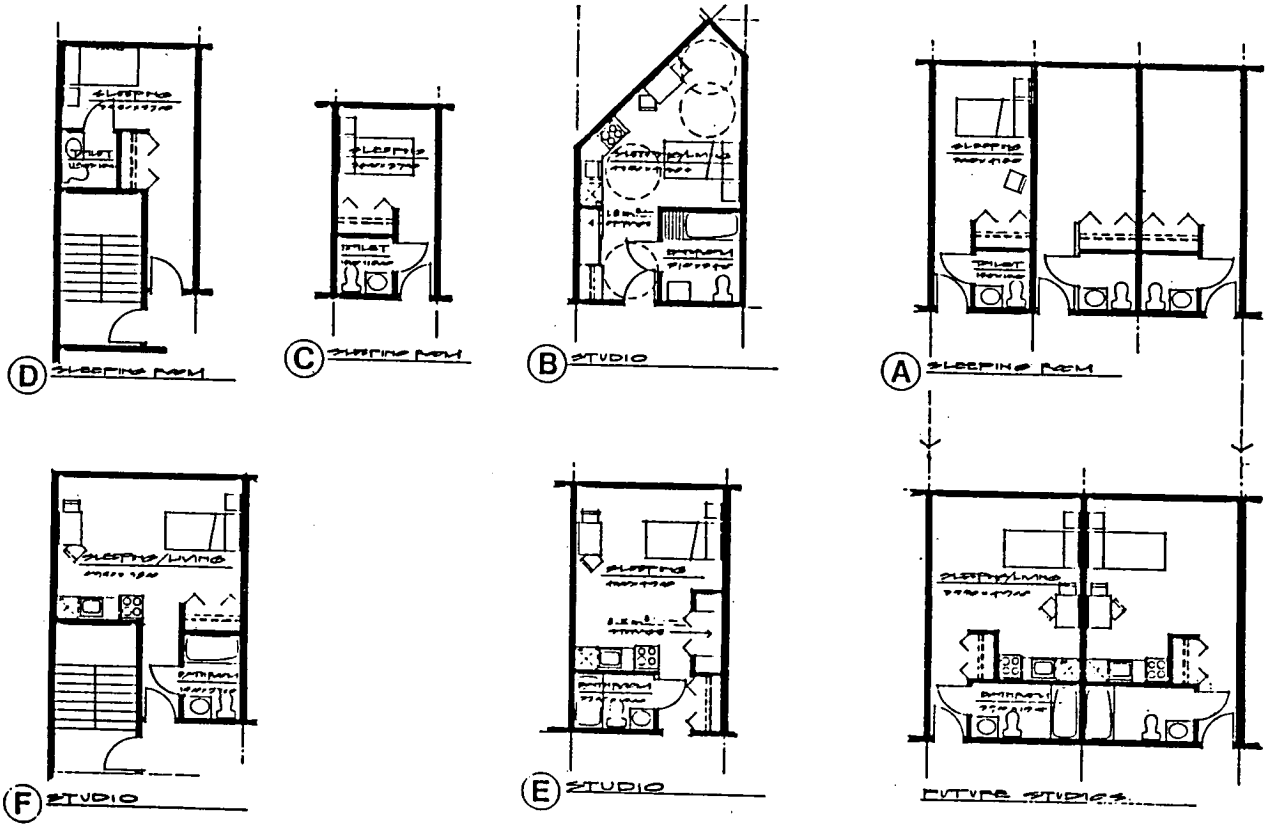
The Veterans Memorial Manor was completed in August, 1986 at a cost of 4.5 million dollars. It is a multi-unit sheltered housing apartment building comprised of 134 units on five floors. Under the Non-Profit Rental Housing Program, CMHC provides approximately $324,000 per annum to reduce the occupancy charge for residents. The current rental charge is $210 for units on the first and second floors, and $220 for units on the upper three floors. The City of Vancouver assisted financially with the acquisition of land and subsidized the land lease. The Department of Veterans Affairs provides a yearly grant of $50,000 towards the operating costs. This was a unique situation which allowed for the yearly grant for five years and is not part of any ongoing program of the Department.

As shown in Figures 1 and 2, there are 8 small sleeping rooms on the first floor. The second floor contains 32 larger sleeping rooms and 7 studio units. A further 29 studio units are located on each of the third, fourth and fifth floors. The studio units include exclusive use kitchen, sleeping and bathroom facilities, sixteen are designed for occupancy by wheelchair-bound individuals.

Adjoining the apartment complex is the "Club 44" or "Alex Centre" facility. This facility, operated by the City of Vancouver, provides the following services and amenities:

- bathing and delousing services,
- free laundry and dry cleaning,
- cafeteria style meals available daily from 10:00 a.m. to 6:00 p.m., at a cost of $1.25 for breakfast and lunch and $1.50 for dinner,
- recreational facilities: lounges, television, pool and card tables.

FIGURE 1A:
UNIT PLANS - VETERANS MANOR



Source: Joe Wai and John Currie, Architects

FIGURE 1B:
CONFIGURATION OF LEVEL 1 - VETERANS MANOR

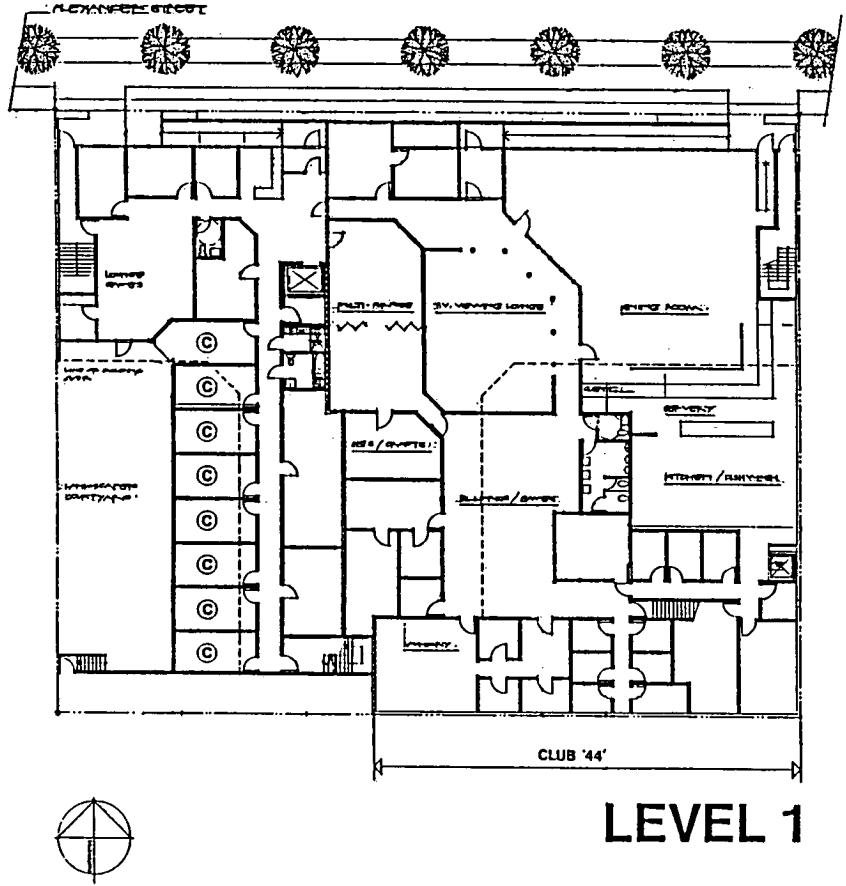


FIGURE 2A:
CONFIGURATION OF LEVEL 2 - VETERANS MANOR

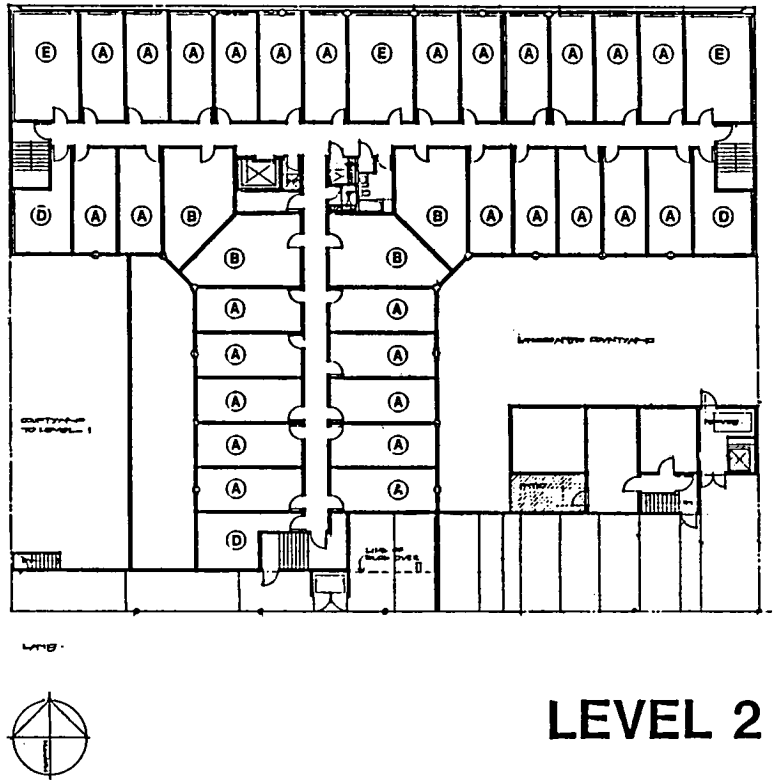
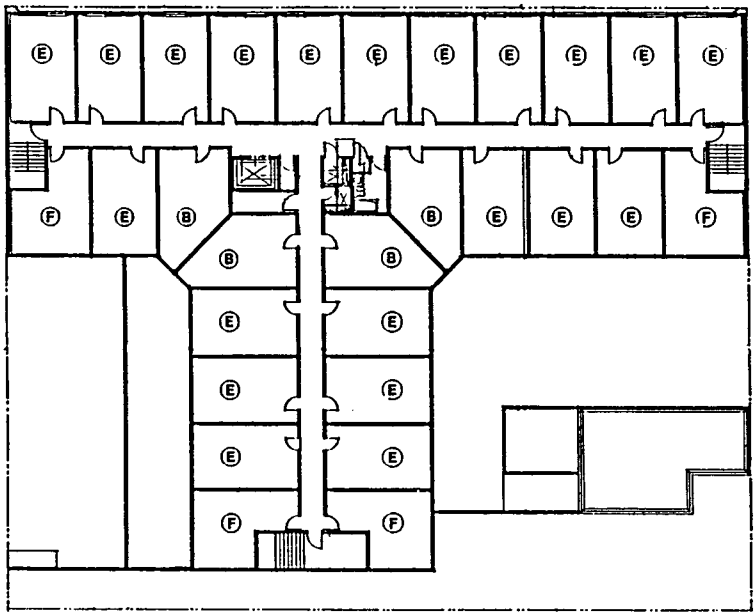


FIGURE 2B:
CONFIGURATION OF LEVELS 3-5 - VETERANS MANOR



It should be noted that Veterans Memorial Manor, which has had an occupancy rate of virtually 100% since its opening in August, 1986, not only combines shelter with essential services such as meals, laundry and social activities but also, through a process of "progressive adaptation", provides the opportunity and incentive for re-integration into the community.

This is facilitated by access to a full range of community resource services and the attitude and approach of supportive staff. Part of this attitude is based on the belief that the hard-to-house are essentially no different from you and me, but they have experienced different significant life experiences.

A review of the life history of this group supports this view. Many of the residents have been "down and out" alcoholics. A high proportion have experienced mental and physical health problems. The data also indicate that many of these men had experienced a difficult childhood and significant life problems as adults.

This paper cannot address "why" some of these men "chose" a lifestyle which often included heavy continuous drinking, self-deprivation, poor nutritional habits and abominal living conditions. What can be examined are data which establish some basic problems and factors which they seem to have in common.

There are several sources for the following data. Twenty-six residents were interviewed in early 1987. The interviews provided some general information on their attitudes, drinking habits, family contacts and life satisfaction. Information documenting their war service and some historical data was obtained from Veterans Affairs records. Additional information was obtained from records maintained by Veterans Manor.

CHARACTERISTICS OF RESIDENTS

Basic information was collected on a total of 82 residents of Veterans Manor. The data are divided into two sub-samples. The first sub-sample, of 40 residents, is comprised of "administered" veterans. These men have historically been considered the most "hard-to-house". The second sub-sample, of 42 residents, are "non-administered" veterans. They have managed to live in the community without assistance in the management of their finances and are considered to be less "difficult-to-house".

Socio-demogratic characteristics

As shown in Table 1, residents in the "administered" group ranged in age from 59 to 85 years with a mean age of 65.4 years. Average length of service in the armed forces was 3.7 years and 87.5% served overseas during wartime. The average level of education attained was grade 7. None were currently married, 42.5% were single, 37.5% separated and 10% divorced.

The "non-administered" group was essentially similar in terms of basic socio-demographic characteristics. Ages ranged from 57 - 83 years with an average of 67.5 years. Average length of service was 3.3 years and 80.9% had served overseas in wartime. Average level of education was grade 7. None of these men were currently married, 50% were single, 23.8% separated and 19% divorced.

Duration of residence in downtown eastside

Of "administered" residents, 52.5% had resided in the downtown eastside prior to moving to Veterans Manor. The average length of residency there was 17.1 years. For the "non-administered" residents, 61.9% had resided in the eastside previously, on average for 13.9 years.

TABLE 1:
CHARACTERISTICS OF "ADMINISTERED" AND "NON-ADMINISTERED" RESIDENTS OF VETERANS MEMORIAL MANOR

	"ADMINISTERED"	"NON-ADMINISTERED"
	(n=40)	(n=42)
AGE (IN YEARS)		
Range	59-85	57-83
Mean	65.4	67.5
MEAN LENGTH OF SERVICE WITH ARMED FORCES (IN YEARS)	3.7	3.3
% WHO SERVED OVERSEAS	87.5	80.9
MARITAL STATUS (%)		
Single	42.5	50.0
Separated	37.5	23.8
Divorced	10.0	19.0
Widower	2.5	—
No Record	7.5	7.1
PSYCHIATRIC HISTORY		
% with Diagnosed Mental Problem	57.0	30.9
Mean Duration (in yrs)	26.5	33.1
% with Diagnosis of Alcoholism	75.0	45.2
Mean Duration (in yrs)	22.7	17.9
MEAN DURATION OF RESIDENCY IN DOWNTOWN EASTSIDE (IN YRS)	17.1	13.9
WAR VETERANS ALLOWANCE		
% in Receipt of	100.0	78.0
Mean Duration of Receipt (in yrs)	14.2	9.1
% EXPERIENCING EARLY LIFE TRAUMATIC EVENTS	42.5	28.5
% EXPERIENCING LATE LIFE TRAUMATIC EVENTS	55.0	28.5

War veterans allowance

Veterans Affairs Canada provides economic support to qualified veterans who have reduced or insufficient incomes. All of the subjects in the "administered" group have received this assistance; on average, for 12.5 years. In the "non-administered" group, 78% had received assistance;, on average, for 9.1 years.

Psychiatric history

The incidence of diagnosed mental problems was higher for the "administered" than for the "non-administered" group (57% vs. 30.9%). In both groups, however, problems were of long standing. In the "administered" group, the average duration of psychiatric problems was 26.5 years. For the "non-administered" group, the average duration was 33.1 years.

Alcoholism

The records of 75% of the "administered" group and 45.2% of the "non-administered" group showed a diagnosis of alcoholism. Again, the problem was of long standing. In the administered group, the average duration was 22.7 years, for the "non-administered" group, the average was 17.9 years.

Significant life events

An individual's life span is marked by changes and transitions as a normal consequence of development. Certain events such as graduation, entry into the workforce, and marriage are relatively predictable. Events which are "unanticipated" or are "off-time", are considered more likely to cause a personal crisis than anticipated events. These include such experiences as a premature death in the family, divorce or major personal injury or illness. Occurrences of this kind can cause emotional problems and affect adult development. Although firm conclusions cannot be drawn about the link between significant life events and developmental problems, it is an area which should be considered (Kimmel, 1980).

Information concerning the life histories of the subjects of this study is incomplete. The data that were obtained suggests, however, that many of the men had experienced stressful life events.

For the purposes of this study, information concerning such events was divided into two categories: early events and late events. Early stressful events were considered to be those which occurred in childhood and pre-war. Examples of these are: death of a parent, being deprived or physically abused as a child, being adopted or fostered, experiencing a family break-up or the death of a sibling. The category of late life stressful events included such occurrences as: death of a spouse or child, psychiatric admission, being in jail, or experiencing a severe medical trauma. Marital changes are not included.

As shown in Table 1, 42.5% of the subjects in the "administered" group had experienced early stressful events and 55% late stressful events. In the "non-administered" group, the incidence was 28.5% for both early and late life stressful events.

While subjects in the "administered" group had experienced nearly twice as many stressful life events as subjects in the "non-administered" group, overall, the two groups of men seem to have many things in common:

1. The majority had difficult or deprived childhoods.
2. Most did not complete elementary school.
3. Almost all served overseas during World War II.
4. The majority were marginally employed in resource industries and casual labour and moved around a lot.
5. There is a high incidence of family breakdown.
6. There is a high incidence of psychiatric problems: 44% of the total sample were diagnosed as having mental difficulties.
7. 60% of the total sample were diagnosed as being chronic alcoholics.
8. Many of the men experienced post-war adjustment problems: 20% of the total sample had been in jail.
9. The majority now have chronic medical problems.

10. Most have lived in the downtown eastside on-and-off for many years.

It is doubtful if these men could have resolved their housing needs without outside help.

HOUSING SATISFACTION AND LIFE SATISFACTION

It should not be assumed that older people generally have a lower life satisfaction than those who are younger. Northcott (1982) found the older years to be a period of fairly low pressure and relatively high satisfaction. A three year longitudinal study (Baur and Okum, 1983) concluded that life satisfaction did not significantly change over time for the elderly.

A number of researchers have examined predictors of life satisfaction and perceived well-being. Baur and Okum (1983) found that the best predictor of later life satisfaction was the level of satisfaction in earlier years. Reker and Wong (1984) note that physical health status predicts life satisfaction. Stock and Okum (1982) report a lower life satisfaction for the self-ascribed handicapped on all scales. Other studies based on work with the non-institutionalized "young-old" conclude that health is the most potent predictor of life satisfaction (Baur and Okum, 1983). However, housing satisfaction can also have a considerable influence on the self-esteem of the elderly (Kelen and Griffiths, 1983).

A survey was carried out in March, 1987 to determine residents satisfaction with Veterans Manor and overall life satisfaction. Responses to several key questions will be considered here.

Subjects (n=26), who had lived in the Manor for an average of 4.7 months, were asked to indicate the type of housing they had occupied prior to moving there and to rate their level of satisfaction with it. Over half the subjects (54%) described their previous residence as a "hotel" and 35% as an apartment/room. The remainder (12%) reported their previous residence as a "house" or "other". Their previous

housing was rated by over half (58%) as unsatisfactory, by 35% as satisfactory and by only 8% as very satisfactory.

In contrast, ratings of Veterans Manor were 4% unsatisfactory, 35% satisfactory and 73% very satisfactory. There was a high degree of confidence in the administration of the Manor with 71% of respondents indicating that staff "always" or "often" showed concern for the residents. Only 3 of the 26 respondents expressed dissatisfaction with the Manor's rules and regulations and this related primarily to the "no guests after 11:00 p.m." rule. When asked what they liked most and least about the Manor, most respondents listed a number of positive features ("it's clean", "having my own bathroom", "privacy"). Few negative features were mentioned. Thirty-eight percent of the subjects reported they got along "very well" with the other residents, 46% "well" and only 15% "not well", the latter generally followed by comments such as "I don't mix much, though" or "I'm a loner" or "I keep to myself". In other words, the move to Veterans Manor appears to have resulted in a major improvement in housing satisfaction for the subjects surveyed in March, 1987.

Finally, when asked to rate their satisfaction with life, responses were 42% "very satisfied", 42% "satisfied" and only 15% "dissatisfied". Further analysis indicated that life satisfaction scores, as previous research had indicated, were heavily influenced by health ratings. (Among those rating their health as "better" or "the same" as others their age, mean life satisfaction score was 2.3 compared with 2.0 for those rating their health as "worse" than others).

SUMMARY AND CONCLUSIONS

The subjects of this study, low income elderly men living in the inner city, represent a distinct subgroup within the larger aged population. They have commonly been characterized a social isolates by theoretical concepts such as disaffiliation (Rooney, 1987). Some researchers, however, present a different picture. Sokolovsky and Cohen (1981) found that most single room occupancy (SRO) people formed complex networks which helped them maintain their independence in the community. Erickson and Eckert (1977) found elderly

downtown hotel residents to be independent and self-reliant. Stephens (1975) describes SRO occupants as having developed an extensive array of strategies to cope in an environment where they must struggle to satisfy daily needs.

The majority of the men in this study have survived many years in the downtown eastside. Despite their capacity to overcome physical hardships and personal difficulty, the combination of declining health, the cumulative effects of alcoholism, aging and the lack of decent, affordable shelter, places them at risk in the inner city environment.

Some of the men who have moved into the Manor have not changed their way of living. Alcohol is a part of the lives of many of them. The administration of the Manor does not interfere with the rights of individuals to drink as they choose. Residents are expected to do this in a reasonable manner and not to infringe on the rights of others or abuse physical surroundings. However, it appears that a number of residents have in fact modified their behaviour in positive ways in response to an enriched environment and the caring attitude of staff. Some men have given up drinking. A number have joined Alcoholics Anonymous. Others have renewed family contacts.

Residents now have access to community programs and services. Home care workers, T.B. control nurses and other agency staff regularly visit the Manor. Of the 134 people in the residence, 45 now receive help from the British Columbia Long Term Care Program.

Turnover has been relatively low. There has been an average of 4 discharges per month from the Manor. Voluntary discharges have occurred twice as frequently as involuntary discharges.

The Alex Centre cafeteria now serves approximately 1,000 meals per day, allowing the service to be self-sufficient and allowing the source to be self-sufficient.

It appears that the approach taken by the Veterans Memorial Society is a viable one. The "hard-to-house" are satisfied because they are able to retain their independence and self-reliance, yet they can obtain help if they need it. The costs of emergency services and institutional care for these men is substantially reduced now that they are adequately housed.

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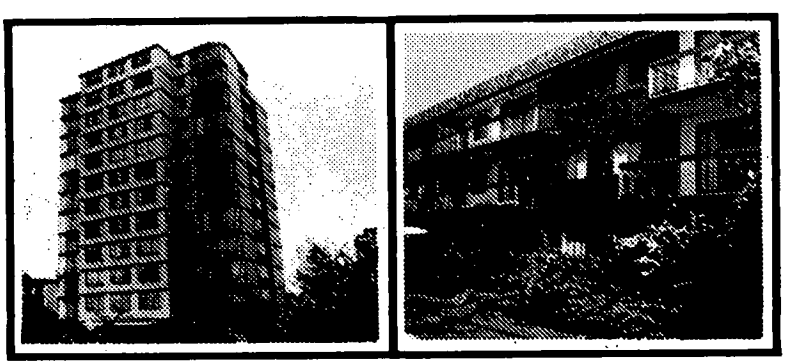

8

THE MULTI-LEVEL, MULTI-SERVICE MODEL

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INTRODUCTION

The question of whether retirement housing should be limited to meeting basic shelter needs or expanded to include medical, nutritional, social and recreational services has been debated for some time (cf. Lawton, 1969).

Proponents of a shelter-only approach typically cite one or more of the following arguments:

1) non-shelter options greatly increase capital and operation costs;

2) non-shelter options are unwanted and/or underutilized by the elderly;

3) service-rich environments may attract mainly the sick or marginally competent; and

4) service-rich environments may foster dependency as well as encourage tenants to spend their time on-site rather than in the broader community.

Proponents of service-rich environments, on the other hand, point to their potential for enabling elderly persons to age in place. This potential is thought to be maximized in the case of the "multi-level" complex. In such a complex, two or more levels of accommodation/care (self-contained suites, board-residence, personal, intermediate and extended care) are provided either in one building or in several buildings on

* This project was carried out with the assistance of a grant from the Canada Mortgage and Housing Corporation under the terms of the External Research Program. The views expressed are those of the author and do not represent the official views of the Corporation.

one site. Among perceived advantages (Gutman, 1978; Woods Gordon, 1980) are that:

1) relocation stress should be minimized because the person who requires additional services can move to other floors or buildings on the same site rather than having to face total environmental change;

2) couples (or friends) can remain in close proximity should the health of one deteriorate;

3) service levels can be adjusted to meet temporary changes in needs;

4) individuals rehabilitated to a higher functioning level can remain in proximity to staff and residents with whom rapport has been established; and

5) economies of scale (both capital and operating) can be realized in basic and specialized services.

It is difficult, however, to arbitrate between these positions on an empirical basis because relatively little is known about the long-term effects on health, functional status or morale of residence in multi-level, multi-service accommodation. Does such accommodation play a prophylactic or delaying role vis-a-vis physiological and psychological deterioration? Does such accommodation confer advantages over and above those realized from a move into more traditional retirement housing? How do seniors feel about and react to service-rich retirement housing? Are there some facilities and service they prefer over others? Do tenants' priorities change over time or as a function of living in a service-rich environment? Given the costs of non-shelter options, it is important to ascertain whether they are, in fact, desired and used by elderly tenants.

In 1973 we were given an opportunity to obtain answers to these and other questions concerning multi-level, multi-service accommodation for seniors when asked by the management of Seton Villa, six months before it opened, to evaluate its impact and design. Seton Villa, located in

Burnaby, B.C., offers seven floors of self-contained suites, six floors of board-residence, two floors of "light", and two floors of "heavy" personal care. It was of interest to us for three main reasons. First, because it was the first retirement complex in British Columbia to offer such a combination of levels under one roof. Second, because it afforded the opportunity of a "before and after" study, with the initial interviews being conducted before the building was ready for occupancy and before any of the applicants had received formal notice of acceptance. Third, because it was to offer an unusually wide range of facilities and services.

This chapter focusses on changes over time in seniors' feelings about these facilities and services and, generally, on the long-term effects of residence in a multi-level, multi-service facility. Previous publications have described the characteristics of persons moving into multi-level, multi-service as compared to more traditional retirement housing (Gutman, 1978) and their reasons for leaving their previous accommodation and seeking age-dense housing (Gutman, 1977). Findings regarding predictors of mortality, predictors of in-mover status, preferences regarding unit design and, feelings about and use of communal spaces are described in three detailed reports to the funding agency (see Gutman, 1975, 1976, 1983).

METHOD

Overall Design

The study was conducted in three phases. In Phase I, conducted in the Fall of 1973, 143 Seton Villa applicants were interviewed. Of these, 100 had applied for self-contained suites, 36 for board-residence and 7 for personal care. Two groups of control subjects were also interviewed. One group consisted of 50 applicants to New Vista, a retirement complex located, like Seton Villa, in Burnaby, B.C. All were on the waiting list for one of two high-rise blocks completed in 1971 and 1972, each of which offered only self-contained suites. While relatively well equipped in terms of space for social activities, the only service offered in these buildings was an activity program co-ordinated by the Tenants' Association.

The second group consisted of 50 "Home Controls" (i.e., elderly persons who had not applied for any form of retirement housing). All three groups were followed up twice, once in 1975, 12-18 months after the initial interviews (Phase II of the study) and again in 1982, nine years after the initial interviews (Phase III).

Life Status of Subjects in Phase III

When originally interviewed, subjects ranged in age from 55-92 (mean age 73).

In Phase III we were able to track 232 (95.5%) of the original 243 subjects, of whom 148 (60.9%) were found to be alive and 84 (34.6%) deceased. The life status of the remaining 11 subjects (4.5%) could not be ascertained.

Mortality rates among Seton Villa applicants were as follows: 25.0% for those who had applied for self-contained suites; 58.3% for board-residence applicants; 71.4% for personal care applicants (chi square = 17.3, $p<.001$).

Although differences were not statistically significant, it should be noted that the proportion of decedents was smaller among applicants for self-contained suites at Seton Villa (25%) than among applicants for similar type suites at New Vista (30%). The mortality rates of these two applicant groups, in turn, were smaller than among the Home Controls (36%).

Subjects Re-Interviewed in Phase III

Of the 143 persons who had applied to Seton Villa and who were interviewed in 1973, 62 (43.4%) actually moved to the site. In 1982, when Phase III was conducted, 42 of the 62 remained alive. Of these, 28 were still living at Seton Villa and 20 (71.4%) were re-interviewed (Group SV-IN). Sixteen were living in self-contained suites, 1 in board-residence and 3 in personal care. Interviews were also conducted with 6 of 14 (42.9%) surviving in-movers living elsewhere and with 31 of 43 (72.1%) surviving applicants who had never moved to Seton Villa (SV-C).

In the case of New Vista, 24 (44.0%) of the original subjects moved to the site. Long term follow-up interviews were completed with 8 of the 12 (66.7%) still living there (Group NV-IN), with all 3 in-movers living elsewhere and with 11 of the 18 (61.7%) surviving applicants who never moved in (Group NV-C).

Interviews were also conducted in Phase III with 21 of the 30 (70%) surviving Home Controls (Group HC).

More than half in group SV-C (56.8%) were living in apartments; 57.1% of them in apartments designated for senior citizens. Of the remainder, 16.2% were living in single-family detached houses, 10.8% in a duplex or townhouse, 2.7% in the home of their children and 13.5% in an institutional setting (care facility, private hospital, psycho-geriatric or extended care unit).

About three-quarters (71.4%) in group NV-C were in apartments; half in senior citizens' apartments. The remainder (28.6%) were in institutions.

Home Controls were almost equally split between apartments (52.4%) and single-family detached houses (47.6%). Only a minority (18.3%) of those in apartments were in seniors' housing.

Table 1 shows the socio-demographic characteristics of the re-interviewed subjects.

There were no statistically significant differences between Seton Villa tenants (SV-IN) and their site controls (SV-C), between New Vista tenants (NV-IN) and their site controls (NV-C) nor between tenants at the two sites (i.e. SV-IN vs. NV-IN) on any of the variables shown in Table 1.

While not differing in age from either of the two tenant groups, subjects in Group HC were significantly younger than subjects in the other two control groups (SV-C and NV-C). There were also significantly more in Group HC than in

TABLE 1:

SOCIO-DEMOGRAPHIC CHARACTERISTICS OF RE-INTERVIEWED SUBJECTS

	SV-IN (n=20)	SV-C (n=37)	NV-IN (n=8)	NV-C (n=14)	HC (n=21)
Age range in Phase III (in years)	65-91	67-99	73-92	75-95	62-85
Mean age in Phase III (in years)	78.6	80.0	78.3	83.9	73.8
Percent female	80.0	75.7	62.5	78.6	47.6
Percent who had not graduated from high school	55.0	59.0	75.0	77.5	57.1
Percent whose primary life occupation was a white collar one[a]	60.0	54.0	12.5	35.7	71.9
Percent retired[b]	100.0	97.3	100.0	100.0	85.7
Percent receiving GIS[c]	30.0	32.4	62.5	85.7	28.6
Percent married:					
Phase I	30.0	40.5	25.0	35.7	66.7
Phase III	20.0	27.0	25.0	21.4	52.4
Percent living alone:					
Phase I	65.0	43.2	37.5	57.1	23.8
Phase III	85.0	59.5	75.0	71.4	47.6

[a] Respondent's occupation for all males and for females never married. Husband's occupation for females married, widowed, divorced or separated. The code used was one devised by Pineo and Porter (1967) for Canadian occupations.

[b] Husband's work status if respondent was a married female.

[c] Old Age Security (OAS) pensioners with no income or only a limited amount of income apart from OAS may, upon application to the federal government, receive a full or partial Guaranteed Income Supplement (GIS). The maximum GIS monthly benefit in Winter, 1982, when the third phase of the study was conducted was $228.63 for single persons and $176.27 for each pensioner in a married couple. The OAS monthly benefit was $227.73.

Group NV-IN whose primary life occupation had been a white collar one.

The only other significant between-group difference involved group NV-C. There were more in this group than in any other group except NV-IN who were in receipt of the Guaranteed Income Supplement (GIS).

RESULTS AND DISCUSSION

EFFECTS OF NINE YEARS IN MULTI-LEVEL, MULTI-SERVICE ACCOMODATION

To assess the effects of residence at Seton Villa, tenants and their controls were asked a series of questions designed to ascertain their current health and functional status, morale, activity level and degree of interaction with family, neighbours and friends.

Health Status

In all phases of the study respondents were asked to rate their health compared to most people their age, along a continuum ranging from excellent to very poor. In Phase III, they were also asked whether in the last 12 months they had had any health problems that kept them from their usual activities, kept them in bed at home, caused them to have to see the doctor or put them in hospital. They were asked "How much of the time does poor health, sickness or pain keep you from doing what you'd like to be doing?" Additionally in Phase III, subjects were asked a series of questions concerning specific health problems (e.g. arthritis, diabetes) and possible functional difficulties (e.g. difficulty walking, climbing stairs, bathing) and whether they were in receipt of homemaker or home nursing services, attended an adult day centre or a seniors' centre.

As shown in Table 2, in all groups the proportion rating their health as excellent or good was smaller in Phase III than in Phase I. A repeated measures ANOVA of the health ratings yielded significant effects for groups ($F=3.99$; $p<.01$))

TABLE 2:

HEALTH STATUS

	SV-IN (n=20)	SV-C (n=37)	NV-IN (n=8)	NV-C (n=14)	HC (n=21)
% rating their health as excellent or good					
Phase I	80.0	83.7	62.5	78.6	90.5
Phase III	70.0	70.2	37.5	64.3	85.7
% with problems in last 12 months that:					
-kept them from their usual activities	45.0	18.9	50.0	50.0	23.8
-kept them in bed at home	10.0	21.6	12.5	28.6	19.0
-caused them to have to see the doctor	55.0	35.1	50.0	50.0	57.1
-put them in hospital	35.0	5.4	25.0	21.4	19.1
% reporting that most of the time poor health, sickness or pain kept them from preferred activities	15.0	13.5	25.0	35.7	9.5
% receiving/attending:					
-Homemakers	0.0	8.1	25.0	42.9	9.5
-Home nursing	5.0	5.4	0.0	0.0	0.0
-Adult day care	0.0	2.7	0.0	7.1	9.5
-Senior Centre	10.0	29.7	12.5	14.3	19.0
% with problems with:					
-Arthritis/rheumatism	60.0	54.1	62.5	50.0	57.1
-Heart	20.0	29.7	25.0	35.7	28.6
-Diabetes	10.0	8.1	12.5	7.1	9.5
-Nervousness	25.0	18.9	25.0	28.6	14.3
-Kidneys/bladder	20.0	35.1	12.5	14.3	14.3
-Varicose veins	40.0	16.2	0.0	0.0	9.5
-Dizziness	15.0	27.0	25.0	28.6	14.3
-High blood pressure	55.0	27.0	25.0	35.7	23.8
-Seeing (even with glasses)	30.0	54.1	37.5	42.9	4.8
-Hearing (even with hearing aid)	20.0	37.8	0.0	42.9	28.6
-Bowel/bladder accidents	20.0	8.1	0.0	7.1	0.0
-Sleeping	25.0	29.7	25.0	28.6	28.6
-Walking	33.3	66.7	12.5	42.9	14.3
-Climbing stairs	35.0	35.1	37.5	35.7	14.3
-Bathing	10.0	18.9	25.0	21.4	9.5
-Dressing	10.0	2.7	0.0	14.3	4.8
-Eating	0.0	2.7	12.5	7.1	0.0
-Self-medication	15.0	8.1	0.0	0.0	0.0
-Getting places in the community	10.0	21.6	12.5	42.9	4.8
-Money management	5.0	8.1	0.0	7.1	0.0

and for time ($F=7.90$; $p<.01$). The groups effect reflects the lower health ratings of Group NV-IN in both Phase I and Phase III. The time effect reflects the decrease in health ratings shown by all groups between Phases I and III. The absence of a groups by time interaction indicates there was no difference in the proportion in the various groups who shifted their health ratings between Phases I and III.

While there was an overall effect for health problems that put respondents in the hospital in the preceding 12 months (chi square = 9.49; $p<.05$), none of the pair-wise comparisons reached statistical significance.

While attendance at a seniors' centre was most frequent in Group SV-C, and more in Groups NV-IN and NV-C than in the other groups were receiving homemakers, no major differences were apparent in the proportion in each group receiving home nursing services or attending an adult day centre.

Only three of the 22 questions concerned with health problems and functional difficulties yielded significant between-group differences: more in group SV-IN than in Group NV-IN or NV-C experienced problems with varicose veins; fewer in Group HC than in Group SV-C had problems with vision and more in Group SV-C than in Groups NV-C or HC had difficulty walking.

There were few differences between groups, in other words, in health or functional status in Phase III or in the degree to which subjects in the various groups had changed since Phase I.

Morale

In Phase I, respondents were asked three questions relating to morale:

1) As you get older, would you say that life is better, worse or the same as you expected it to be?

2) How satisfied would you say you are with your life today?

3) Would you say that most days you have plenty to do?

In Phase III, the same three questions were asked along with the 19 others that together constitute Lawton's (1970) Philadelphia Geriatric Centre Morale Scale (PGC).

Neither longitudinal analysis of the three individual morale questions nor cross-sectional analysis of total PGC scores revealed any significant between-group differences.

Leisure-Time Activities

In all phases of the study respondents were presented with a list of 17 leisure-time activities and asked the extent to which they participated in each. Following Sherman (1974), an "activity score" was computed for each respondent by summing those of the 17 activities engaged in to any degree.

There was a decrease in mean "activity scores" in all groups between Phases I and III of the study. Statistical analysis of the data yielded no evidence of a differential shift in either tenant group, relative to the controls, in "activity scores" calculated in Phases I and III. When the activities were examined individually, comparison of reported participation rates in Phases I and III yielded only five significant effects: "taking part in sports", "walking or taking rides", "window shopping", "playing bingo" and "attending movies". Only the latter two yielded groups by time interactions. All groups but HC played more bingo in Phase III than in Phase I. Groups SV-IN, SV-C and NV-IN saw fewer while Groups NV-C and HC saw more movies in Phase III than in Phase I.

Interaction with Family, Neighbours and Friends

When interviewed in Phase I, in all groups but NV-C, a high proportion (71.4% to 92.5%) of those with children reported having contact with one or more at least once a week. Similar high contact rates were reported in Phase III by Groups SV-IN, SV-C and HC. While rates were lower in Phase III in Group NV-IN and higher in Group NV-C (see

Table 3), longitudinal analysis of the data failed to yield significant effects. There also were no significant differences in the proportion in each group who had contact with their children or other relatives in the three days preceding the Phase III interviews or who received assistance from them.

Two areas in which the move to retirement housing did, however, have noticeable effects concerned interaction with neighbours and interaction with friends. Perhaps the most interesting finding (see Table 4) was that positive effects were apparent both among those who moved to Seton Villa *and* those who moved to New Vista. This contrasts with findings from the short-term follow-up phase, where an increase over baseline in neighbour interaction/assistance rates was apparent only among those who moved to Seton Villa. It seems, in other words, that there was a delayed effect in the case of New Vista in-movers - that is, it took them longer to develop the mutual concern/assistance networks that previous research (Rosow, 1967; Sherman, 1975) has shown tends to be characteristic among seniors living in age-concentrated housing.

It should also be noted that the move into senior citizens' housing appears not just to have assisted Seton Villa and New Vista tenants in maintaining their pre-move level of visiting or entertaining friends, but to have fostered a slight increase in this activity. This is in direct contrast to controls, all three groups of whom showed a decrease between Phases I and III in the proportion visiting once a week or more often with friends.

Taken together, in other words, the data on health and function status, morale, activity level and degree of interaction with family, neighbours and friends fail to support the hypothesis that residence in a multi-level, multi-service housing environment fosters dependency and disengagement or in any way undermines health and general well-being.

TABLE 3:

INTERACTION WITH FAMILY

Of Those With Children	SV-IN (n=15)	SV-C (n=27)	NV-IN (n=8)	NV-C (n=13)	HC (n=18)
% in contact with one or more at least once a week					
Phase I	86.7	92.6	71.4	46.2	83.3
Phase III	80.0	92.6	57.1	84.6	83.3
% seeing/speaking to one or more in the 3 days preceding Phase III interview	80.0	81.5	57.1	69.2	77.8
All Subjects	(n=20)	(n=37)	(n=8)	(n=14)	(n=21)
% in contact with relatives other than their children at least once a week					
Phase I	45.0	43.2	25.0	14.3	42.9
Phase III	35.0	56.8	25.0	21.4	42.9
% seeing/speaking with other relatives in the 3 days preceding Phase III interview	30.0	59.5	37.5	35.7	38.1
% receiving assistance from their children or other relatives:					
financial	10.0	5.4	25.0	21.4	9.5
with shopping	30.0	32.4	12.5	35.7	19.0
with housework	5.0	10.8	12.5	21.4	4.8
with meal preparation	0.0	8.1	0.0	7.1	4.8
with transportation	40.0	45.9	37.5	57.1	19.0

TABLE 4:

INTERACTION WITH NEIGHBOURS AND FRIENDS

	SV-IN (n=20)	SV-C (n=37)	NV-IN (n=8)	NV-C (n=14)	HC (n=21)
% in contact with *two* or more neighbours in the 3 days preceding the interview					
Phase I	55.0	62.2	37.5	71.4	61.9
Phase III	95.0	70.3	75.0	64.3	47.6
% giving/receiving neighbour assistance by:					
Picking things up at a store					
Phase I	61.1	59.5	12.5	35.7	57.1
Phase III	75.0	56.8	75.0	71.4	57.1
Borrowing/lending things					
Phase I	44.4	45.9	12.5	7.1	52.4
Phase III	55.0	45.0	50.0	35.7	42.9
Giving advice					
Phase I	50.0	29.7	12.5	35.7	38.1
Phase III	35.0	40.5	37.5	28.6	33.3
Looking in					
Phase I	77.7	64.9	37.5	42.9	61.9
Phase III	85.0	64.9	62.5	64.3	66.7
Helping out during illness					
Phase I	44.4	64.9	12.5	50.0	61.9
Phase III	70.0	54.1	75.0	64.3	61.9
Looking after home during absence					
Phase I	38.8	56.8	12.5	7.1	52.4
Phase III	50.0	37.8	37.5	35.7	61.9
% visiting friends at least once a week					
Phase I	50.0	64.9	50.0	42.9	61.9
Phase III	60.0	27.0	62.5	35.7	28.6

PREFERRED FACILITIES AND SERVICES IN RETIREMENT HOUSING

In all three phases of the study, subjects were asked which of the facilities and services shown in Table 5 they would like to see included in retirement housing. In the original plans, all items in Table 5 except "Grocery Store and Other Commercial Shops" were to have been available at Seton Villa. As it turned out, due to difficulties with licencing, the management of Seton Villa were unable to provide extended care or an infirmary. Lack of funds in the final stage of construction prevented renovation of an auxiliary building on the site which was to have contained a chapel, pub, tea room and library. Still, the range of facilities and services that *were* included at Seton Villa was unusually large for the times, at least in British Columbia. These included a dining room, beauty parlour/barber shop, health spa containing thermal and exercise pools, an arts and crafts room, a workshop area, a gift shop/convenience store where residents can purchase toothpaste, soap, candy, etc., a large auditorium with a stage and kitchen facilities, as well as recreational, cultural and educational programming coordinated by a resident Activity Director.

Examination of Table 5 indicates that Seton Villa tenants' feelings about the need for an on-site beauty parlour/barber shop remained stable between Phases I and III of the study. In both of these phases, more than 90 percent expressed a desire for such a facility. This was interesting considering that less than half of the subjects in group SV-IN reported that they personally visited the beauty parlour/barber shop at Seton Villa once a month or more often.

Other items of high priority among Seton Villa tenants in both Phases I and III of the study (i.e. desired by over 80%) included a library, convenience store, chapel, and recreational, educational and cultural programs.

Seton Villa tenants were considerably *more favourable* in Phase III than they had been in Phase I to inclusion on-site of an indoor swimming pool and whirlpool, gift shop, and auditorium - likely as a result of having had access to these.

TABLE 5:

FACILITIES AND SERVICES RECOMMENDED BY SUBJECTS FOR INCLUSION IN RETIREMENT HOUSING

	SV-IN (n=20)		SV-C (n=37)		NV-IN (n=8)		NV-C (n=14)		HC (n=21)	
	Phase I	Phase III	Phase I	Phase III	Phase I	Phase III	Phase I	Phase III	Phase I	Phase III
-Beauty parlour/barber shop	90.0%	100.0%	62.2%	67.6%	37.5%	37.5%	78.6%	64.3%	42.9%	52.4%
-Indoor swimming pool and whirlpool	75.0	95.0	32.4	54.1	37.5	12.5	50.0	57.1	38.1	76.2
-Library	90.0	100.0	91.9	81.1	50.0	62.5	85.7	85.7	85.7	66.7
-Gift shop	45.0	75.0	35.1	35.1	0.0	37.5	21.4	21.4	33.3	19.0
-Grocery store and other commercial shops	90.0	30.0	81.1	35.1	37.5	75.0	57.1	64.3	76.2	38.1
-Convenience stores	95.0	100.0	81.1	62.2	50.0	37.5	64.3	57.1	85.7	66.7
-Coffee shop/snack bar	80.0	40.0	64.9	37.8	25.0	37.5	64.3	42.9	42.9	52.4
-Cocktail lounge/pub	50.0	20.0	21.6	13.5	12.5	25.0	14.3	0.0	9.5	9.5
-chapel	85.0	90.0	81.1	70.3	62.5	50.0	64.3	71.4	57.1	57.1
-Auditorium	55.0	100.0	59.5	59.5	12.5	37.5	42.9	57.1	42.9	71.4
-Facilities for private parties	75.0	65.0	56.8	40.5	37.5	37.5	57.1	35.7	42.9	52.4
-Recreational, educational and cultural program	95.0	95.0	83.8	73.0	87.5	62.5	78.6	57.1	76.2	71.4
-Infirmary	100.0	75.0	94.6	73.0	75.0	50.0	85.7	71.4	76.2	71.4
-Extended care hospital	95.0	55.0	89.2	67.6	75.0	37.5	71.4	64.3	66.7	52.4
-Individual garden plots	n/a	85.0	n/a	59.5	n/a	12.5	n/a	71.4	n/a	76.2

They were considerably less favourable in Phase III, on the other hand, to inclusion of a grocery store and other commercial shops, a coffee shop or snack bar, a cocktail lounge or pub, an infirmary, and an extended care hospital.

A number of major changes (i.e., changes of 20 percentage points or more) were also apparent in the Group SV-C data. Like group SV-IN, subjects in Group SV-C were more favourable in Phase III than in Phase I towards a swimming pool and whirl pool. Also in similarity to group SV-IN, they were less favourable in Phase III than in Phase I to inclusion of a grocery store, coffee shop, infirmary and extended care hospital.

Comparison of group NV-IN's responses in Phases I and III also yielded some interesting changes in priorities. In Phase I the three facilities and services most frequently recommended for inclusion in retirement housing were recreational, educational and cultural programming (desired by 87.5%), an infirmary and an extended care hospital (both desired by 75% of tenants). In Phase III, the three most popular items wer a grocery store and other commercial shops (mentioned by 75% of tenants), a library and recreational, educational and cultural programming (desired by 62.5% of tenants).

As noted in the report of the short-term follow-up (Gutman, 1978), it is important that architects and sponsors be aware of the high proportion of seniors who desire programming in senior citizens' housing. More space and funds need to be allocated for programming; greater consideration needs to be given to hiring a resident Activity Director.

Architects and sponsors should also be aware of the high proportion of seniors who desire a library in retirement housing. Both Seton Villa and New Vista have shelves of books in their penthouse lounge. Although in behavioural observations conducted at Seton Villa in Phases II and III few tenants were observed accessing these books, the interview data suggest strongly that they (and control subjects) place great value on an on-site library. Perhaps the usage rate at

Seton Villa would have paralleled the interview data had a "real" library, such as that originally planned, been available. Alternatively, the low usage rate may have been due to the visit, during the observation period in both Phases II and III, of the Public Library Mobile Library Service which brings a selection of books to the site every two weeks. It is important to note, however, that even with this service, which has been available at Seton Villa since it opened, 100% of respondents in group SV-IN recommended that a library be included in retirement housing. It may well be that for seniors a library on-site has values beyond those available from a mobile book service.

Another finding that should be highlighted concerns feelings about inclusion of a cocktail lounge or a pub in retirement housing. Except in the case of group SV-IN in Phase I, less than one-quarter of respondents in the various groups indicated any interest in having such a facility in a building *they* lived in.

Finally, it is important to note that in all groups, there was a decrease, between Phases I and III, in the proportion recommending inclusion of an extended care hospital and an infirmary in retirement housing.

These data, when considered in conjunction with material to be presented in the next section, have major implications for the current trend, both in North America (Hiebert, Schurman and Allen, 1980) and in Europe (Collot, Jani-le Bris and Ridoux, 1982) to advocate construction of full-range multi-level accommodation for seniors (i.e. from self-contained suites to extended care).

FEELINGS ABOUT MULTI-LEVEL ACCOMMODATION

In all phases of the study, subjects were asked three questions designed to ascertain their feelings about multi-level accommodation:

1) What do you think of the idea of people with different health needs all living in the same building? That is, having some floors with self-contained suites, some floors

offering board and room, some floors for people needing personal care (e.g., help with eating, dressing and bathing) and some floors for people needing 24-hour nursing service?

2) If *you* were designing housing for retired people, what levels of care would you include: a) apartment? b) board-residence? c) personal care? d) extended care?

3) How would you group the different levels of care? Would you put all levels in the same building but on different floors, self-contained apartments and board-residence in one building and personal and extended care in a second building or what?

Examination of responses to question 1 failed to yield any evidence of a negative shift in Seton Villa tenants' feelings about multi-level accommodation subsequent to living in such accommodation for an extended period of time. Rather, as shown in Table 6, the proportion indicating that they were favourable or very favourable to the concept of multi-level accommodation increased between Phases I and III (from 75% to 85%). The same cannot be said for the New Vista tenants. In this group, the proportion responding favourably to question 1 decreased markedly over the course of the study (from 87.5% favourable or very favourable in Phase I to 25% in Phase III).

The negative change over time in the New Vista tenants' attitudes towards multi-level accommodation is also reflected in their response to questions 2 and 3.

As shown in Table 7, all groups were less amenable in Phase III than they had been in Phase I to the idea of including extended care in a retirement complex. The proportion who, in Phase III, *would* include this level was, however, clearly lowest in Group NV-IN (37.5%). There were also more in Group NV-IN than in all groups but HC who would separate rather than combine levels.

It is our impression that the negative attitude change shown by the New Vista tentants was due, in large measure,

TABLE 6:

FEELINGS ABOUT PEOPLE WITH DIFFERENT LEVELS OF HEALTH NEEDS LIVING IN THE SAME BUILDING

	SV-IN (n=20)	SV-C (n=37)	NV-IN (n=8)	NV-C (n=14)	HC (n=21)
Phase I					
Very favourable	65.0%	43.2%	75.0%	50.0%	42.9%
Favourable	10.0	37.8	12.5	7.1	23.8
Neutral	0.0	0.0	0.0	0.0	0.0
Unfavourable	10.0	8.1	0.0	0.0	0.0
Very unfavourable	10.0	8.1	12.5	42.9	33.3
No answer	5.0	2.7	0.0	0.0	0.0
Phase III					
Very favourable	75.0	43.2	12.5	35.7	23.8
Favourable	10.0	18.9	12.5	28.6	28.6
Neutral	10.0	8.1	12.5	7.1	19.0
Unfavourable	5.0	10.8	12.5	21.4	23.8
Very unfavourable	0.0	16.2	50.0	7.1	0.0
No answer	0.0	2.7	0.0	0.0	4.8

TABLE 7:

LEVELS OF ACCOMMODATION/CARE SUBJECTS WOULD INCLUDE IF DESIGNING HOUSING FOR RETIRED PEOPLE

	SV-IN (n=20)	SV-C (n=37)	NV-IN (n=8)	NV-C (n=14)	HC (n=21)
Apartments					
Phase I	100.0%	97.3%	100.0%	100.0%	95.2%
Phase III	90.0	83.8	87.5	71.4	95.2
Board-residence					
Phase I	100.0	94.6	75.0	85.7	100.0
Phase III	90.0	78.4	50.0	64.3	76.2
Personal Care					
Phase I	100.0	94.6	75.0	78.6	81.0
Phase III	85.0	75.7	62.5	64.3	76.2
Intermediate Care					
Phase III	85.0	70.3	62.5	64.3	71.4
Extended Care					
Phase I	90.0	86.5	62.5	78.6	76.2
Phase III	50.0	54.1	37.5	57.1	66.7

to the opening, on their site, of a facility containing 200 personal care and 100 intermediate care beds. Rather than serving to reduce their apprehensions regarding higher levels of care, the presence of such large numbers of infirm persons in the immediate environment may have exacerbated their anxieties. It may well be that proximity to up to 25 percent of persons requiring personal care, as at Seton Villa, is tolerable to the well-elderly but that larger proportions, especially if they require more than personal care, are not.

Alternatively, it is possible that the design of the complex is a critical factor in fostering or maintaining positive attitudes toward multi-level accommodation among the well-elderly.

There is a need to systematically compare reactions to and the functioning of vertically structured multi-level facilities, horizontally structured facilities and those, such as at New Vista, where the levels are in different buildings on the same site. While the Seton Villa data suggest that the vertical structure works well in terms of maintaining positive attitudes towards multi-level accommodation among the well-elderly, perhaps because it brings individuals in the different levels in contact with one another (e.g. in the elevator and lobby), the New Vista data suggest that alternative configurations may not be as effective.

Further research is also needed to determine the extent to which tenants' attitudes towards multi-level accommodation as well as inter-level interaction rates are a function of management policies and practices. At Seton Villa, management have always made a concerted effort to foster interaction between tenants in the various levels. No specific effort in this regard was made at New Vista.

Finally, there is a need to ascertain the frequency with which inter-level moves typically take place in multi-level accommodation. Over the nine years of this study, only 9 of the 62 who moved to Seton Villa (14.4%) changed levels while in residence there; in three cases the level change was not accompanied by a suite change.

The small number of concurrent level and suite changes could be because the majority of tenants in self-contained suites do not gradually deteriorate but rather remain stable for long periods of time and then change dramatically, necessitating a move to an intermediate or extended care facility. The small number of level and suite changes could be because the majority of tenants in self-contained suites die in place -- i.e., in the suite into which they originally moved or from which they transfer to acute hospital where death occurs. Alternatively, perhaps quick and easy transfer between levels in a multi-level facility is a pipe dream --

a) because turn-over rates at the various levels of care are lower and slower than we realize, resulting in beds being unavailable when needed, and/or

b) because of realities of the market place.

In regard to the latter, it should be noted that for multi-level facilities to function as they are supposed to, beds at the higher levels of care would have to be held open for tenants at the lower levels to move into as their needs change. But how can an administrator justify holding beds open when, as is the case in many parts of Canada and the U.S.A., beds are in short supply and there are individuals with clearly defined needs living outside the facility who could occupy them. How can an administrator justify holding beds open that might otherwise be generating revenue? The answer to both questions may well be that he/she cannot and that multi-level facilities can only operate as they are supposed where the supply of beds exceeds demand and/or the Board has made a conscious decision to serve the affluent, charging them sufficiently high rates for the beds they now occupy to cover the cost of holding empty the beds they may, in future, need.

SUMMARY AND CONCLUSIONS

Multi-level, multi-service facilities are recognized as potentially valuable in enabling older persons to age in place. At the same time, there is concern that, in addition to increasing the costs of retirement housing, the inclusion of

medical, nutritional, social and recreational services may be unwanted by elderly tenants and/or encourage dependency or disengagement from the broader community.

To investigate these and other issues surrounding multi-level, multi-service accommodation, interviews were conducted pre-move, at 18 months and at 9 years post-move with tenants at Seton Villa, a retirement complex offering self-contained suites, board-residence and personal care under one roof.

For comparison purposes, interviews were also conducted with tenants at New Vista who lived in buildings offering only self-contained suites, with applicants to both sites who moved in and then out or never moved in and, with elderly non-applicants.

Previous publications have described findings from the short-term follow-up. This chapter has focussed on the long-term (9 year) follow-ups.

Like the short-term follow-up, the long-term follow-up yielded no evidence of differential decline, relative to controls, in the health status, activity level, or level of interaction with family or friends of those who moved to Seton Villa. In general, there were few differences in the current level of well-being or in the rate of change of seniors living at Seton Villa compared with control subjects. Those differences that did emerge tended to favour tenants at Seton Villa and tenants at New Vista over respondents living elsewhere. The major advantage of tenancy at Seton Villa over tenancy at New Vista was in the rate at which neighbours became concerned for and interacted with one another, which happened much earlier at Seton Villa.

Whether this advantage was a result of the multi-level nature of Seton Villa, the greater amount of social and recreational space and programming, staff efforts and attitudes or some combination of these is unclear. Considering the number of elderly apartment dwellers reputed to be socially isolated and lonely, it is suggested that future studies be directed towards ascertaining which are the

critical variables so that appropriate intervention strategies and/or design solutions can be implemented.

A number of other recommendations were also made - among them, that further research is needed to ascertain which levels may best be combined in multi-level facilities.

Prior to conducting this study, the author would have recommended that all levels be included, either in one building or in several buildings on one site. The results of the study have raised questions about the wisdom of such a recommendation.

In all groups, there was a clear decline between Phases I and III in the proportion who expressed a desire for an extended care hospital when asked about it in the context of questions concerning preferred facilities and services in retirement housing. There was a decrease in Phase III in the proportion who would include extended care when asked what levels they, personally, would include if designing housing for retired people. There was also a greater tendency in Phase III than in Phase I to separate extended care from the other levels or to exclude it totally from the site when respondents indicated their preferred grouping of levels. These data may reflect subjects increasing fears, as they age, of becoming senile or developing other presumed age-related negative traits. As Rodin and Langer (1984) point out, such fear tends to motivate older people to distance themselves from peers with obvious disabilities.

If this is the case, combining extended care with lighter levels, such as self-contained suites or personal care, may be a mistake indeed. Rather, it may be advisable to place intermediate and extended care on an adjacent site or at least out of the direct line of sight of well-elderly tenants. This would still allow proximity to friends and staff should a move to heavier care be required. The question, of course, still remains whether the right bed will be ready at the right time regardless of how one configures the multi-level facility except, as has been argued in this paper, in a situation where supply exceeds demand.

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PART IV: TRANSITION OVER TIME

9

THE NATURALLY OCCURRING RETIREMENT COMMUNITY

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INTRODUCTION

A Naturally Occurring Retirement Community (NORC) is defined as a housing development not planned or designed for older people, but which attracts a preponderance of older people.

Hunt and Gunter-Hunt (1985) report that NORCs differ from planned retirement communities in several ways. Firstly, they are naturally occurring, and thus not specifically designed for older people. Secondly, they are age-integrated since the original residents are mainly younger people and, over time, the older people come to out-number the younger residents. Thirdly, NORCs are not marketed as retirement communities and go unnoticed as such by non-residents. In fact, most NORCs are not considered retirement communities by even their own residents, developers, or managers.

It should be noted that NORCs can be found in a wide variety of housing developments and settings. For example, a NORC can be a single building or a set of buildings such as an apartment or condominium complex. A NORC can be an older part of town where residents have aged in place. A NORC can be a vacation or resort area that has attracted older people to live. A NORC can also be a small town or rural area where young people have moved away and older people remained or moved to after retirement.

The apartment complex-type NORC is the focus of the research reported on here. This type of NORC is of special significance because it is probably the most common form of alternative housing for older people in North America. In 1981, about one million people, or about five percent of the older population, lived in planned retirement communities in

the United States (Marans et al., 1983). NORCs, however, probably house a much larger portion of the nation's older people. For example, there are about three times as many NORCs in Madison, Wisconsin, where this research was conducted, as there are planned retirement communities.

STUDY DESIGN

To learn more about how naturally occurring retirement communities evolve, three NORCs in Madison, Wisconsin were investigated:

- Karen Arms Garden Apartments consists of eleven two-story buildings housing 238 residents. About 75% of the residents are at least 60 years old. Karen Arms is located between a large interior-mall shopping centre and a 20 acre park. Also within the immediate area are two major grocery stores, several financial institutions, a post office, a number of restaurants, and several bus routes. Karen Arms is one of six naturally occurring retirement communities in the immediate area which also contains a continuing care retirement centre, a subsidized housing development for the elderly and a condominium building which houses many older people. In sum, the area is rich in resources and has attracted many older people.

- The Clarenden Apartment complex consists of five 3-1/2 story buildings, the half story consisting of a partial basement apartment. The Clarenden houses a total of 78 residents of whom 50-60% are over the age of 60. The Clarenden is located in an older part of Madison in the Monroe Street business section. This area consists of small privately owned shops and restaurants offering a variety of goods and services including a grocery store, hardware store, and library. The Clarenden is easily accessible to parks, schools, a hospital, churches, and a zoo, and is bounded on three sides by a residential area. The University of Wisconsin campus is very close to this area with a football stadium and basketball arena only a block away. There is a bus stop located immediately in front of the Clarenden.

- Midvale Heights Apartment consists of one two-story building. It houses a total of 80 residents of which 65-70% are over the age of 60. The building is located in a residential neighbourhood on a busy thoroughfare between Midvale Middle School and Midvale Plaza Shopping Centre. Midvale Plaza Shopping Centre houses a grocery store, beauty parlor, pharmacy, and library, in addition to various other small shops. A bus stop is located approximately one block from the apartment complex.

In the study, a total of 72 residents aged 60 years and over were individually interviewed. Of these, 25 were from Karen Arms, 23 from the Clarenden and 24 from Midvale. A representative of the management of each NORC was also interviewed. There were four major categories of questions in the interviews. Questions in Category 1 were designed to ascertain the characteristics of the older people living in NORCs. Questions in Category 2 asked what had attracted the residents to a NORC. In Category 3, questions assessed how life has been in a NORC. The fourth and final category of questions concerned why people move away from a NORC.

CHARACTERISTICS OF NORC OLDER RESIDENTS

About 80% of the residents interviewed in this study were widowed women living alone, 10% lived with a spouse and the remainder lived with children, siblings, or unrelated people. At the time of the interview, two-thirds of the residents were between the ages of 60 and 75. When asked how old they were when they moved to the NORC, 30% indicated they had moved in when under 60 years of age, 50% when between age 60 and age 75, while the remaining 20% had not moved in until after age 75. When asked how long they had lived in the NORC, 23% said they had lived there for less than 5 years, 21% between 6 and 10 years; 34% between 11-20 years and 23% more than 21 years.

It was also of interest to learn where the older residents of the NORCs had previously lived. It was found that over three-quarters had moved from the same part of town as the NORC. In one of the study NORCs, the Clarenden, only two of the 23 participants interviewed had moved from outside the city of Madison.

The type of housing in which NORC older residents had previously lived was also of interest. It was determined that about twice as many participants had previously lived in single-family homes than had lived in apartments. Furthermore, 93% of the respondents had either not moved at all in the last 10 years or had made only one move in that time. Since the move to a NORC was included in these findings, it is clear that these residents move very infrequently indeed.

To summarize, NORC older residents were a stable group of younger and older elderly people who rarely move. When these individuals do move, they do not move far. About half of the participants had sold homes owned for a long time to move to the NORC while others moved from houses and apartments rented for a long time. Almost all of these people had lived with a spouse prior to moving into a NORC.

WHAT WAS THE NORC ATTRACTION?

In attempting to answer this question, the reasons why participants had moved from their previous homes were first investigated. Participants were then asked what had attracted them to the NORC. Finally, they were asked how they had heard about the NORC.

Table 1 illustrates that, by far, the most frequently mentioned reason for moving from their previous residence was that it was too large and upkeep was becoming a problem. Most often, the problems associated with the size and upkeep of their previous residence seemed to result from their failing health or the failing health or death of a cohabitant (cohabitant was either a spouse or sibling).

TABLE 1:

QUESTION: WHY DID YOU MOVE AWAY FROM YOUR PREVIOUS RESIDENCE?*	KAREN ARMS	CLARENDEN	MIDVALE HEIGHTS	TOTAL
	(n=25)	(n=23)	(n=24)	(n=72)
Upkeep & size of housing	9	6	13	28
Illness/Death of cohabitant	7	5	4	16
Social factors (friends, danger, etc.)	5	6	4	15
Forced to move	4	4	4	12
Neighborhood	6	2	3	11
Cost	1	4	2	7
Management	1	2	1	4
Personal health	1	0	2	3
QUESTION: WHAT CHANGED OVER TIME ABOUT WHERE YOU USED TO LIVE THAT MADE YOU WANT TO MOVE?				
Death or illness of cohabitant	7	6	8	21
Upkeep & size	7	7	4	18
Neighborhood	5	2	4	11
Forced to move	4	3	3	10
Personal health	2	1	5	8
Cost	1	3	2	6
Management	1	2	2	5
Retirement	2	0	1	3

*Columns add to more than the group n's as respondents were asked to indicate all applicable reasons.

Reasons for leaving the previous residence were further explored by asking particpants what they liked least and most about their prior residence. As shown in Table 2, the most frequently mentioned *least-liked* aspect of their prior residence was maintenance, followed by isolation. This is consistent with the previous finding in that the illness or death of a spouse could lead to increased maintenance demands on the well spouse and an increased feeling of social and physical isolation. The *most-liked* feature of the previous residence was its location near friends and neighbors, and the space and privacy of the home. This finding suggests that NORC residents would probably not like to move very far away from friends and neighbors. As reported earlier, this was, in fact, the case since most NORC older residents moved from the same part of town or even the same neighborhood.

TABLE 2:

QUESTION: WHAT 2 OR 3 THINGS DID YOU LIKE *LEAST* ABOUT WHERE YOU USED TO LIVE?*	KAREN ARMS	CLARENDEN	MIDVALE HEIGHTS	TOTAL
	(n=25)	(n=23)	(n=24)	(n=72)
Maintenance	11	9	9	29
Isolation/Location/ No Friends	5	6	8	19
Nothing	3	2	5	10
Security/Safety	4	3	2	9
Noise/Traffic	3	3	2	8
Management	3	3	0	6
Cost	1	1	0	2
QUESTION: WHAT 2 OR 3 THINGS DID YOU LIKE *MOST* ABOUT WHERE YOU USED TO LIVE?				
Location	13	12	13	38
Space in living unit	8	11	7	26
Views/Porches/ Balcony	8	4	5	17
Quiet/Privacy	3	4	3	14
Friends & Neighbours	9	3	1	13
Bus lines	1	2	3	6
Management/ Maintenance	1	2	2	5
Cost	0	0	2	2

*Multiple responses.

In sum, the situation in which many of these NORC older residents found themsleves prior to moving to a NORC was that they liked their house and the neighborhood in which they had lived for many years, but did not like the upkeep of the house and the isolation that often resulted from the illness or death of a spouse.

When asked questions concerning the factors that attracted them to the NORC, as illustrated in Table 3, two reasons were mentioned more frequently than any others: 1) location; and 2) that friends and/or relatives lived there. These reasons for moving to the NORC are consistent with why people were leaving their homes. Residents liked their "old" neighborhood but they did not like the isolation of the past residence. NORCs, therefore, seem to be providing just what was needed to compensate for the disliked aspect of their previous housing.

TABLE 3:

QUESTION: WHAT ATTRACTED YOU TO THIS PLACE TO LIVE?*

	KAREN ARMS	CLARENDEN	MIDVALE HEIGHTS	TOTAL
	(n=25)	(n=23)	(n=24)	(n=72)
Location/ Neighborhood	21	18	21	60
Friends/Relatives/ Age Peers	17	21	14	42
Bus Line	0	3	11	14
Availability	2	8	2	12
Maintenance	2	2	4	8
Cost	0	4	2	6
Size of Apartment	0	1	4	5

*Multiple responses.

When asked how they had heard about the NORC, by far the dominant response (see Table 4) was that they had heard through word-of-mouth from friends and relatives. In fact, two of the three NORCs included in the study did not even advertise in the telephone book. Obviously, the NORC management understood that personal referrals were their primary source of advertising.

TABLE 4:

QUESTION: HOW DID YOU HEAR ABOUT THIS APARTMENT COMPLEX?

	KAREN ARMS	CLARENDEN	MIDVALE HEIGHTS	TOTAL
	(n=25)	(n=23)	(n=24)	(n=72)
Friends/Relatives	16	16	14	46
Saw Sign/Asked	7	2	3	12
Ad	1	2	7	10

*Multiple responses.

HOW HAS LIFE BEEN IN A NORC?

To learn how older people like living in a NORC, participants were asked four questions. Firstly, they were asked "...how do you like living here compared to your past residence?" As shown in Table 5, 60% said "much better" or "better", 25% said "same" and 9.7% said "worse". Secondly, participants were asked "...how do you like your apartment in the NORC compared to your previous residence?" Half reported liking it a little or much more, 20.8% liked it about the same, while 27.8% liked it less than their previous residence.

The most common reasons for liking the NORC apartment less were stairs, less space, lack of hominess, and the maintenance of the NORC. With respect to maintenance, residents seemed to be very sensitive about *management's* ability or willingness to maintain the building.

The third question participants were asked was "...how do you like the neighborhood compared to your previous neighborhood?" Just under half (45.8%) said they liked it "much more" or "a little more", 40% said the "same", while 9.7% said "a little less" or "much less". When asked why they liked the NORC neighborhood, participants mentioned its location and the neighbors. It should be remembered that the NORC neighborhood was the same as the "old" neighborhood for many of the participants, which would account for their similar attractiveness.

TABLE 5:

QUESTION: HOW DO YOU LIKE LIVING HERE COMPARED TO WHERE YOU LIVED PREVIOUSLY?	KAREN ARMS	CLARENDEN	MIDVALE HEIGHTS	TOTAL
Much better	5	11	3	19
Better	6	5	12	23
Same	8	5	6	19
Worse	5	0	0	5
Much Worse	0	2	0	2
No answer	1	0	3	4
Total	25	23	24	72

QUESTION: HOW DO YOU LIKE YOUR APARTMENT HERE COMPARED TO THE HOUSE OR APARTMENT YOU LIVED IN BEFORE? DO YOU LIKE IT HERE...				
Much more	3	14	6	23
A little more	7	3	3	13
About the same	8	2	5	15
A little less	6	1	8	15
Much less	1	3	1	5
No answer	0	0	1	1
Total	25	23	24	72

QUESTION: HOW DO YOU LIKE YOUR NEIGHBORHOOD HERE COMPARED TO THE NEIGHBORHOOD YOU LIVED IN BEFORE? DO YOU LIKE IT HERE...				
Much more	8	8	4	20
A little more	4	6	3	13
About the same	9	5	15	29
A little less	2	1	1	4
Much less	1	2	0	3
No answer	1	1	1	3
Total	25	23	24	72

Following the previous series of questions, participants were asked the fourth question which was whether they visited or socialized with neighbors more, less or the same as they did before moving to the NORC. About 45% reported visiting or socializing "much more" or "a little more", 35% said "about the same", and only about 20% said "less".

To summarize, about half the respondents felt life in a NORC has been better than where they lived before; more than a third rated it about the same. A more detailed analysis revealed that moving to a relatively small apartment was difficult for some. However, these people were willing to trade-off disliked qualities of the living unit for the benefits offered by the location of the NORC (near friends, relatives, and shopping), and being free of maintenance responsibilities.

It was also found that NORC older residents expected management to uphold their obligation to maintain the premises. The degree to which management is perceived by older residents to maintain the building and grounds well is important to the evolution of a NORC because word-of-mouth is the primary means by which other older people hear about the NORC. If residents become disenchanted with management, the word-of-mouth recruiting may cease and the evolution of a NORC may slow or reverse. This is a slow process because residents tend not to move away because of dissatisfaction with management, rather they quit telling their friends and relatives that it is a good place to live.

WHY DO PEOPLE MOVE AWAY?

To address this question, participants in the study were first asked if they planned on moving away. Sixty percent said "no", 30% said "maybe" and less than 10% said "yes". Participants who said "maybe" or "yes" to this question were asked why they would move. The two most common answers were 1) need more health care, and 2) to pay less rent. Participants were then asked why they thought others had moved away. The same two answers were forthcoming: 1) need for more health care, and 2) the cost. However, it should be noted that few people reportedly had actually moved away for either of these reasons. Rather, their reasons for moving away seemed related to the design of the NORC and, in particular, to barriers, such as stairs in the living unit and stairs to the laundry room.

As a follow-up to these questions, participants were asked if anything could or should have been done to help those who had moved away remain in the NORC. By far the most common response was that nothing should be done. While the second most common response was to provide in-home care, most respondents seemed to feel that if people needed health care, they should move somewhere else where it could be better provided.

CONCLUSION

There appear to be three main categories of factors involved in the evolution of a NORC: 1) location, 2) management, and 3) design. Location seems to be the main initial attraction of a NORC. There are two aspects of location that appear to be particularly important: 1) proximity to shopping and service facilities, and 2) proximity to friends and family. Since NORC older residents seem to expect and even demand that the NORC be well maintained and since most NORC older residents were attracted to the NORC by word-of-mouth, it appears that good management, or more correctly, good maintenance, is critical in maintaining a stream of referrals to the NORC. Finally, the design of a NORC is important not so much because it is an attraction but rather, because it is a potential barrier to continued independent living.

The three NORCs selected for this study represent a variety of neighborhood settings. The Karen Arms is located near a rich service center and several other housing developments, many of which are NORCs or purpose-built housing for the elderly. The Clarenden is located in an older part of town on a street with many shops and services. Midvale Heights is located in a residential part of town near a small shopping center. Despite the differences in their setting (and size), it is interesting to note the similarity of responses among the three NORCs to virtually all the questions asked. This similarity of responses suggests that the pattern of NORC evolution described above can be applied to a broad range of settings.

Finally, it should be noted that not only were NORCs found to be desirable to their older residents, but to their managers as well. The resident managers of the NORCs reported that older residents were desirable tenants for three main reasons. First, they are long-term residents which adds stability to the resident population and is cost effective. (Managers reported that it costs the equivalent of one month's rent every time the occupancy of a unit changes. This cost is incurred even if the vacated unit is immediately reoccupied). Second, managers report that older residents generally cause less wear and tear on the apartment than younger tenants. Third, it was reported that older residents are typically quite dependable in terms of rent payment.

In summary, NORCs provide a powerful message about housing in general. NORCs demonstrate that attractive housing for older people is attractive to younger people as well. However, the reverse is not necessarily true. Housing attractive to younger people may not attract older residents as is evident by the fact that many apartment or condominium complexes do not evolve into NORCs. It is apparent that all housing should be designed and planned with the needs of older people in mind in order to provide attractive housing for all.

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10

PLANNING FOR RETIREMENT COMMUNITIES

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INTRODUCTION*

Demographic reports on Canada's population indicate that as the future unfolds we will be facing significant changes in our population structure. As we approach the turn of the century we can expect large increases in the absolute number and in the relative proportion of "elderly" in the population. The impact of these changes will permeate all facets of society. In recognition of these impending changes, policy and program development in the public sector has stressed the need for a wide range of options.

During the past few years a variety of alternatives for seniors housing have been examined by both the public and the private sector. One option that is gaining popularity is the retirement community. Contrary to popular belief, retirement communities are not a new phenomenon and have, in fact, existed in the United States since the 1920's. The Canadian experience, however, has been more recent. Aside from the seemingly endless debate about whether age-segregated housing is indeed a good idea, there are a number of issues surrounding the concept of retirement communities. This paper focusses on the community planning implications of retirement communities with particular emphasis on the experience in Ontario.

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DEFINITION

The term "retirement community" is likely to evoke a range of images from a mobile home park to a retirement residence where some professional care is provided. One definition of a retirement community is that provided by Heintz (1976):

> The planned retirement community is one type of housing complex created especially for senior citizens. It is an age-restricted, permanent housing development with a planned environment that is oriented toward leisure. (p. xix)

Although quite similar, the definition provided by Marans (1983) is perhaps more useful in describing the Canadian experience since it highlights two key points: age and health. Marans defines retirement communities as:

> ...aggregations of housing units planned for healthy older people (at least 50 years of age) most of whom are retired. This housing aggregation should incorporate at least one community-shared, non-residential facility or service and should be described by its developers, managers and residents through marketing and other material as a place for retirees to live. (p. 87)

To add a further dimension to these definitions, we can turn to a comprehensive study of American retirement communities published in the *Journal of Housing for the Elderly* (Hunt et al, 1983). The study describes the wide variation in size, type, scale and design of development. The resulting typology describes five types of retirement communities which are not mutually exclusive but exist on a continuum. These five types are referred to as retirement new towns, retirement villages, retirement subdivisions, retirement residences and continuing care centres.

Retirement new towns are large retirement communities having various health care services and an extensive network of outdoor recreational facilities and leisure programs designed primarily for retirees. New towns

provide a range of housing options and are designed to be self-contained communities.

Retirement villages feature a variety of recreational facilities, limited commercial facilities and a few health services. They are not intended to be self-contained communities.

Retirement subdivisions are residential environments planned for a predominantly independent elderly population. In contrast to new towns and retirement villages, they have available only a limited number of recreational facilities for resident use. In most instances, health care and commercial facilities are non-existent.

Retirement residences refer to individual senior citizen apartment buildings or complexes. As small retirement communities, they provided supportive environments designed to accommodate a relatively independent lifestyle at a moderate cost to older retired persons.

Continuing care retirement centres provide a highly supportive environment based on the concept of continuing health care.

THE ONTARIO EXPERIENCE

The discussion in this paper is based on two studies conducted by the Ontario Ministry of Municipal Affairs. The first study, a case review, entitled *Planned Retirement Communities* was published in July, 1986. The second study, which is currently underway, is an analysis of the planning implications of retirement communities. The goal of the second study is to provide a handbook for planners, developers, council members and others involved in the development of retirement communities. The handbook will encompass two facets of planning: first, the criteria by which we evaluate proposals and secondly, the impact of development on the community and the users.

In order to provide some background, let us first examine some of the key characteristics of the Ontario retirement community experience.

- Planned retirement communities are still a relatively new phenomenon. Most were developed in the 1970's.

- Planned retirement communities tend to be located in rural and recreational areas of the province.

- The characteristics of residents may vary but the majority are active, mobile and report fairly good health.

- There are variations in the type of housing and price ranges offered in retirement communities.

- Planned retirement communities have generally accommodated people who have moved from other areas, primarily from urban centres to retirement communities in rural settings.

The private sector response to the growing interest in retirement communities is characterized by projects that are designed for the young, healthy and active retiree. Developers readily admit that they are selling a lifestyle, not simply housing. The question that remains is: What is the long term impact? Retirement communities as they exist today appear to be only short term solutions for an aging population. Retirement communities have for the most part not anticipated the changing needs of residents as they age.

AGING IN PLACE

The fundamental issue is the perception, by both the developer and resident, of the length of stay in a retirement community. From her study of retirement communities in New Jersey, Heintz (1976) concludes that "for most residents, the retirement community is accepted as the final place of residence" (p. 57). As evidence, Heintz notes the low voluntary turnover rate in the communities she studied. The Ontario case study (1986) also indicated a low number of

resales in retirement communities. Comments from focus group participants and anecdotal evidence from the study currently in progress in Ontario further support this conclusion. It should also be noted that when, in the New Jersey study, residents were asked if they anticipated moving, only a very small proportion (6.9%) expressed definite plans to move. This response reflects both a high level of satisfaction with retirement community living as well as an expectation that the community will continue to serve their needs over time. In fact, several authors suggest that residents' expectations are much higher than normal in a planned environment. Observations by La Greca et al (1985) and Golant (1975) indicate that residents expect a planned environment to remain stable and insure that their future needs are met.

We are faced then with a contradiction between the product and the expectations of the consumer. There is also a potential for problems as increasing pressure is put on municipal councils, staff and various agencies that provide services to respond to changing needs.

The ability to respond to the aging of the retirement community population will depend partly on the size and design of the retirement community. Not surprisingly, Hunt et al (1983) note that the larger, more diverse types of communities such as retirement new towns and retirement villages are more able to respond since they include a full range of facilities and services or at least have the land set aside to construct these facilities as needed. Retirement subdivisions and to a lesser extent retirement villages often have to rely on the resources of the wider community.

DESIGN

There is often a reluctance to consider special design features in retirement communities due to the insistence, by developers, that these communities are intended for the young elderly. Understandably, developers do not want to present consumers with a product that has an institutional appearance. Another concern of developers is the cost of installing design modifications. There is a widely held

impression that these features will be very costly. In addition, consumers tend to be short sighted about their needs and therefore are unlikely to demand such features. The result is that very few retirement communities have any specific design features that accommodate seniors needs as they age.

Hiatt (1985) suggests that for the older person, the goal should be "functional design".

> Functional design would (1) anticipate potential frailty and be developed to maximize independence; (2) minimize hazards and risk of falls; (3) encourage appropriate exercise, communication and action as a means of sustaining vigour, participation and health; and (4) maximize psychophysical responses such as learning, recall, and coordination. Functional design would also facilitate self-care, daily work and leisure, conventional ways of moving, speaking, listening and thinking. (p. 202).

In striving for "functional design" we must consider several levels of design. These levels of design can be grouped into the following categories: community concept and physical design, site design, housing types and design, dwelling design and community facilities design. All of these components contribute to the resident's satisfaction with their environment and ultimately to their ability to maintain their independence.

HEALTH AND SOCIAL SERVICES

The impact of retirement communities on local health and social services was also examined in the Ministry study. For purposes of the study, services of concern were those health and support services used predominantly by seniors and at least partly funded by the Ontario government. Income support programs were not included.

The Ministry study was prompted by a concern that further development of retirement communities in Ontario could have adverse impacts on the local provision of health and social services unless certain factors were taken into consideration during the project planning. Several trends have contributed to this concern.

First, the elderly use disproportionately more of such services than the population as a whole. For example, although in 1982/83 those aged 65 and over accounted for only about 10% of the Ontario population, they consumed 40% of all acute hospital days (Ontario, Minister for Senior Citizens Affairs, 1986). Secondly, the older elderly use a disproportionately greater level of health and social services than the younger elderly. Thus, as the population of retirement communities matures and their average age increases, their need for services will greatly increase. Third, many existing or proposed retirement communities are or may be situated in rural areas where the health and social service systems may not be as well prepared as in urban areas to cope with significant additional demands for service.

On the basis of case studies prepared for the Ministry by Price Waterhouse Ltd. (1987), the following factors appear to influence the impact of retirement communities on health and social services:

- the size of the retirement community relative to the size of the catchment area of the organization providing services, as opposed to the ratio of the population of the retirement community to the population of the municipality in which the retirement community is located;

- the extent of turnover in the retirement community population and the age of new residents vis-a-vis existing residents;

- the extent to which mutual support systems have developed among retirement community residents;

- the extent to which local agencies and institutions are familiar with the service needs of the elderly and already provide services to respond to these needs;

- the extent to which retirement community residents have developed strong ties to the retirement community and the local area in which it is located; and

- the availability of transportation services and housing options to allow residents to remain in the area should they be unable to drive, become physically disabled or no longer be able to physically maintain their houses.

TRANSPORTATION

Transportation needs are often overlooked in retirement communities. As mentioned previously, most retirement communities in Ontario have been designed for the young elderly. This assumes that the residents are healthy and mobile. The majority of projects have also been built with the assumption that residents are affluent. Given these assumptions, it is not surprising that retirement communities are designed for the independent automobile user with no thought being given to those dependent on regular public transit, special transit or walking.

In a 1983 Ministry of Municipal Affairs study of planning issues for seniors, transportation needs are defined as:

- a means to get to services and, if necessary, to work
- special services, if physically disabled
- a barrier-free, pleasant walking or cycling environment
- public transport modes that may be used easily to travel to dispersed origins and destinations

- reasonable fares on public transit
- appropriate destinations to visit

Planners and housing developers need to be aware that certain accommodation types may suit the needs of the "young old" who are more likely to own cars, but not be suitable for the older senior.

LOCATION

The importance of location in the development of retirement communities cannot be stressed enough. Many of the negative impacts outlined above can be lessened considerably by choosing a site well located in respect to existing urban centres and the accompanying services. Access to transportation is also enhanced by choosing a site that is integrated with existing development.

ECONOMIC AND FINANCIAL IMPACT

New tax assessment revenue and increased consumer spending are clearly identified as benefits to be reaped from retirement community development. Retirement communities generate significant tax revenues for the local municipality particularly since many of these communities cater to an affluent group. Moreover, since many retirement communities maintain their own private internal facilities and services and attract only mature, childless households, they appear to place few service demands on the municipal and educational systems. As a result, municipal revenues may be significant, while municipal expenditures may be marginal depending on tenure arrangements and the development agreement.

Residents of a retirement community may also provide a boost to the local business community. With an infusion of consumer dollars, these new residents may supply local retailers and service sector organizations with an important source of business traffic and in some cases, even serve to attract additional businesses to the municipality. As well, retirement community residents provide the municipality with a new resource in the form of accumulated skills and experience which are often willingly shared through volunteer

efforts. Not surprisingly then, the introduction of a retirement community, particularly in a smaller rural community, is often seen as a means of providing financial and economic assistance to the municipality in which it is situated. Viewed in this fashion, and in the light of apparent growing demand for retirement housing, some municipalities consider retirement communities as a new growth industry.

There is some concern, however, that municipalities may be overestimating the expected financial rewards while underestimating municipal costs. In Ontario, the full impact of these communities has not yet been assessed since retirement communities are a relatively new phenomenon. At issue are the actual, long term costs associated with the aging of the retirement community residents and the range of municipal services demanded by them over time.

CONCLUSIONS

Evidence gathered to date, from sources in the United States and from Ontario, indicates that retirement community residents do, in fact, age in place. Given this knowledge, albeit still limited, we have the opportunity to enhance existing and future retirement developments by anticipating the impending impact. This task requires a long-term, multi-disciplinary approach to planning communities.

This paper has identified some of the factors that should be considered when planning a retirement community. Future publications issued by the Ministry will expand on the topic.

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PART V: LESSONS FROM ABROAD

11

INTERNATIONAL EXPERIENCE IN HOUSING THE VERY OLD: POLICY IMPLICATIONS FOR CANADA

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INTRODUCTION

The population of most countries is aging. The proportion of people aged 65 and over in most western industrialized nations will continue to grow until the first third of the next century (Table 1). The population of some countries is aging at a faster rate than others. The most rapidly increasingly age group in these countries consists of the very old defined in this volume as those aged 75 and over. Current projections show that even with modest increases in life expectancy, the proportion of very old people in the industrialized nations will triple between the 1980's and 2040. According to Maguire (1987), the proportion of the total population 75 and over could be as high as 9% in some countries. The experience of nations like Sweden, which currently has a relatively high proportion (6.5%) of very elderly people in its population, has valuable lessons for countries with younger populations.

THE NEEDS AND CONSUMPTION PATTERNS OF THE VERY OLD IN SWEDEN

Sweden has engaged in research over a considerable period of time to understand the patterns of aging and the demand that the aging process makes on public policy. From this research, a brief statistical description of the very old, followed by a picture of their needs and their consumption of housing and services is presented.

TABLE 1:
PERCENTAGE OF TOTAL POPULATION AGED 65 AND OVER
IN SELECTED COUNTRIES, 1980-2050

COUNTRY	1980	1990	2000	2010	2020	2030	2040	2050
Australia	9.6	11.1	11.7	12.6	15.4	18.2	19.7	19.4
Austria	15.5	14.6	14.9	17.5	19.4	22.8	23.9	21.7
Belgium	14.4	14.2	14.7	15.9	17.7	20.8	21.9	20.8
Canada	9.5	11.4	12.8	14.6	18.6	22.4	22.5	21.3
Denmark	14.4	15.3	14.9	16.7	20.1	22.6	24.7	23.2
France	14.0	13.8	15.3	16.3	19.5	21.8	22.7	22.3
Germany	15.5	15.5	17.1	20.4	21.7	25.8	27.6	24.5
Italy	13.5	13.8	15.3	17.3	19.4	21.9	24.2	22.6
Japan	9.1	11.4	15.2	18.6	20.9	20.0	22.7	22.3
Netherlands	11.5	12.7	13.5	15.1	18.9	23.0	24.8	22.6
Norway	14.8	16.2	15.2	15.1	18.2	20.7	22.8	21.9
Sweden	16.3	17.7	16.6	17.5	20.8	21.7	22.5	21.4
Switzerland	13.8	14.8	16.7	20.5	24.4	27.3	28.3	26.3
United Kingdom	14.9	15.1	14.5	14.6	16.3	19.2	20.4	18.7
United States	11.3	12.2	12.2	12.8	16.2	19.5	19.8	19.3

Source: Maguire, (1987).

The Very Old in Sweden

Sweden, in comparison with other countries, currently has one of the highest proportions of persons aged 65 and over (16.3%) within its population. As shown in Table 2, within the 65 and over population, over 40% is very old.

TABLE 2:
NUMBER OF ELDERLY PERSONS
BY AGE GROUP, SWEDEN, 1983

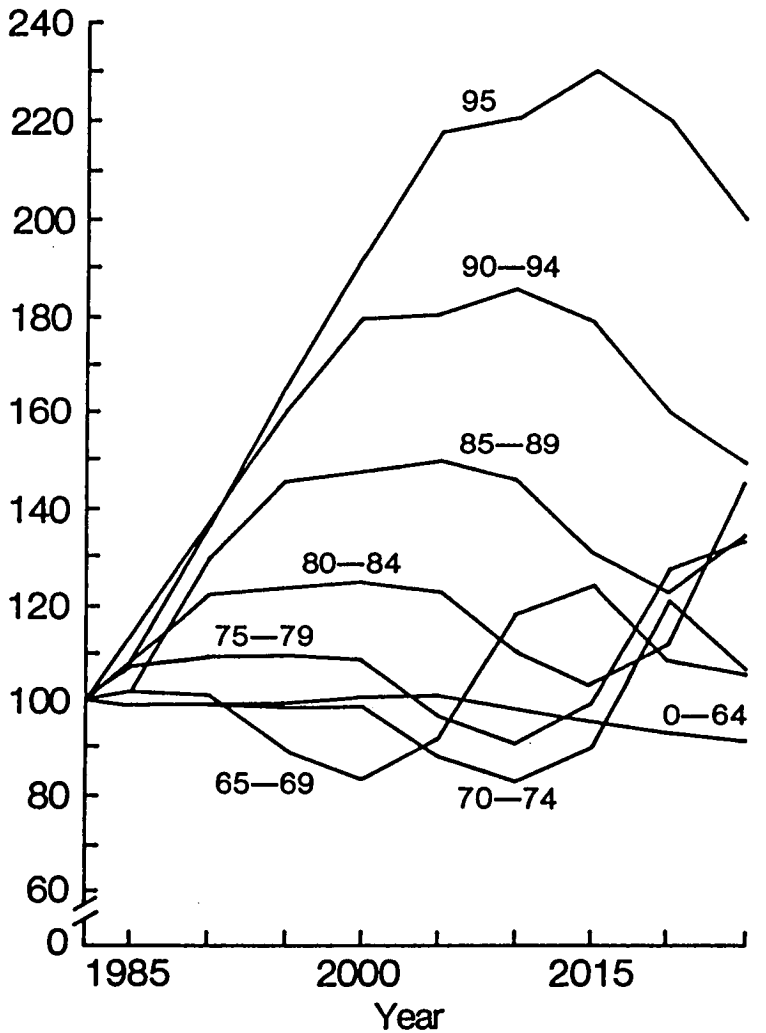
AGE GROUP	NUMBER IN THOUSANDS	PERCENTAGE OF ELDERLY POPULATION
65 -74	822.6	58.3
75 -84	474.7	33.7
85 - 94	107.7	7.6
95 and over	5.0	0.4
	1410.0	100.0

Source: Dagens Aldre, (1985).

The Increasing Population of the Very Old in Sweden

While the number of persons aged 65 and over is projected to increase both absolutely and relatively, the rate of growth of the overall elderly population will be less dramatic than before. The preoccupation is now with the unprecedented growth of the 75 and over age group. Figure 1 shows projections for the year 1985 to 2025 for various segments of Sweden's older population. The growth in each five year age segment has been converted to an index using the 1982 figure as a base. The elderly in the highest age categories show rapid growth until about 2010.

FIGURE 1:
PROJECTED GROWTH OF THE POPULATION AGED 65 AND OVER, SWEDEN, 1982-2025 (INDEX: 1982 = 100)



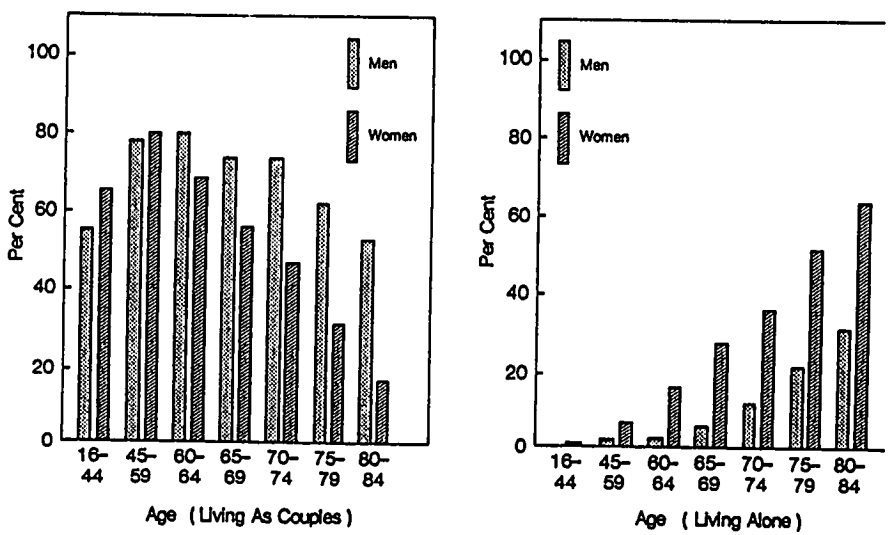
Source: SPRI (1985).

Demographic Characteristics of The Very Old in Sweden

Demographic trends within the overall elderly population are accentuated in the population that is very old. Currently the sex ratio for the 65-74 age group is 85.6 males for every 100 females; among those 75-84, the ratio is 68.9:100. In the year 2000, in the 80 and over category, it is expected that two of every three persons will be a woman; in the age 90 and over category, three of every four persons will be women (SOU, 1985).

Data from 1981 show that the proportion of couples decreases with age while the number of single person households, mainly headed by women, increases (Figure 2).

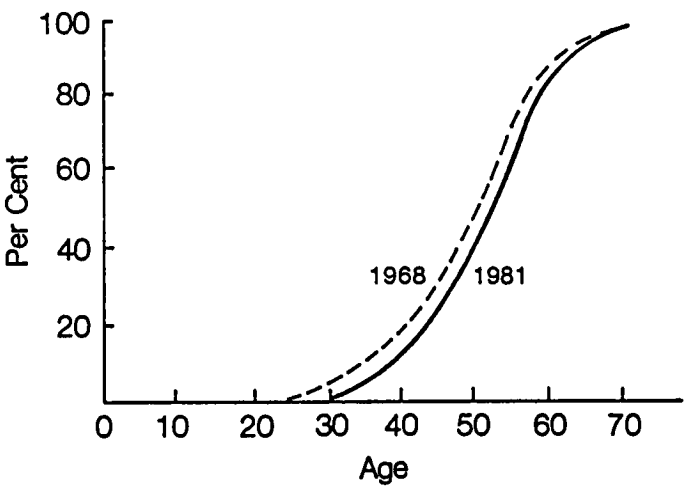
FIGURE 2:
ELDERLY HOUSEHOLD COMPOSITION BY AGE GROUP IN SW



Source: Statistiska Centralbyran (1985).

About a fourth of the very old population of Sweden does not have children. Of those that do, slightly over 40% see their children every week (Statistiska Centralbyran, 1985). However, in the future, children caring for the very old may be elderly themselves, because the age at which a person lacks both parents is increasing. In 1981, over 16% of children aged 60-64 still had at least one living parent compared with only 10% in 1968 (Figure 3).

FIGURE 3:
AGE OF PARENTLESSNESS IN SWEDEN, 1968, 1981

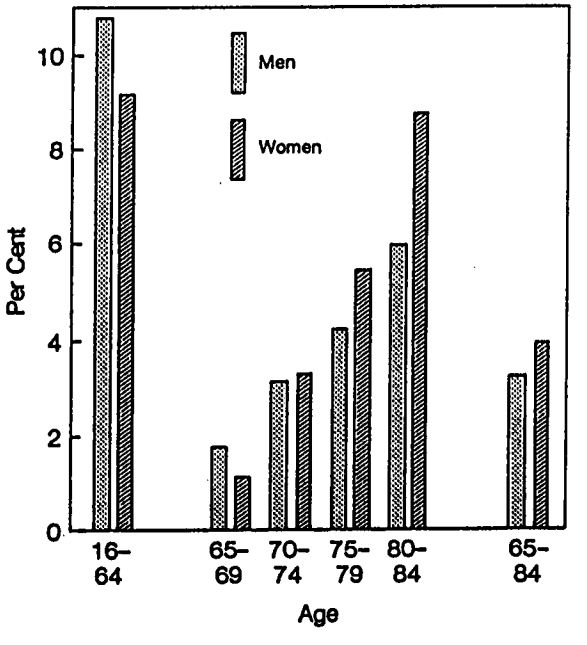


Source: Sundstrom (1986).

Income Distribution Among the Very Old in Sweden

In Sweden, the average annual income for a pensioner in 1981 was SEK 45 500 (SEK 5 = Cdn $ 1) compared to SEK 52 000 which was the average annual household disposable income per inhabitant (a Swedish measure of average per capita income). Among those 65 and over, the average income declined with age and women had a lower average income than men. For example, among those aged 80 and over, men had an average income of SEK 40, 800 and women SEK 34,500 (SOU, Dagens aldre, 1985). As shown in Figure 4, a comparatively high proportion of the elderly below the poverty line (existensminimum) are women aged 80 and over.

FIGURE 4:
DISTRIBUTION OF ELDERLY WITH DISCRETIONARY INCOME BELOW THE POVERTY LINE, SWEDEN, 1981



Source: SOU (1985).

Assets and Debts held by the Very Old

As shown in Table 3, both assets and debts held by the elderly decline with age. A significant proportion of persons aged 65 and over - 30% of those living alone and 11% of couples - did not have assets at all. Of those that did, the primary residence was the major asset and its value declined with the age of the owner.

TABLE 3:
ASSETS AND DEBTS AMONG THE ELDERLY IN SWEDEN, 1981

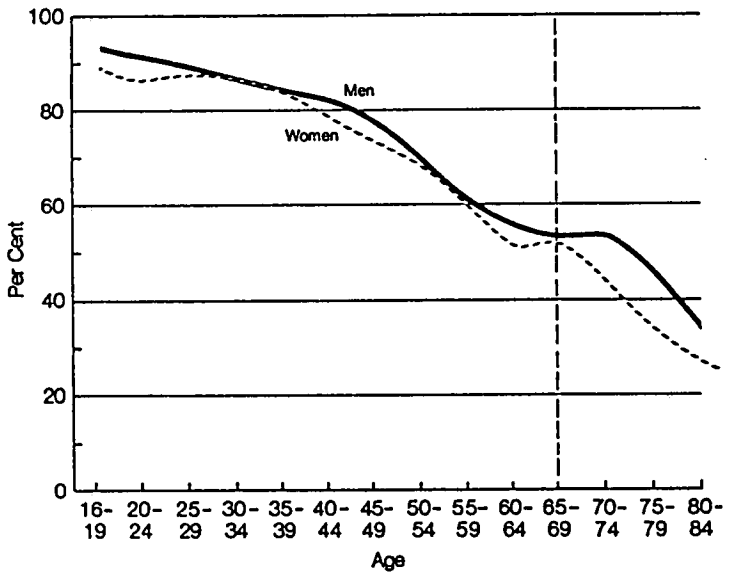
	AGE GROUP			
	45-54	55-64	65-74	75+
	Thousand SEK			
Financial Assets	62.9	71.4	84.0	68.3
Real Estate	203.0	154.1	96.9	50.1
Other	82.8	58.6	23.4	7.9
Total Average Assets	348.8	284.1	204.4	126.2
Average Debt	117.8	70.3	19.1	8.5
Net Average Assets	231.0	213.8	185.3	117.7

Source: SOU, (1985).

Health Status of the Very Old in Sweden

The health status of Swedes is improving and, in general, is very high. However, the percentage of persons in good health without disabilities declines steeply with age (Figure 5).

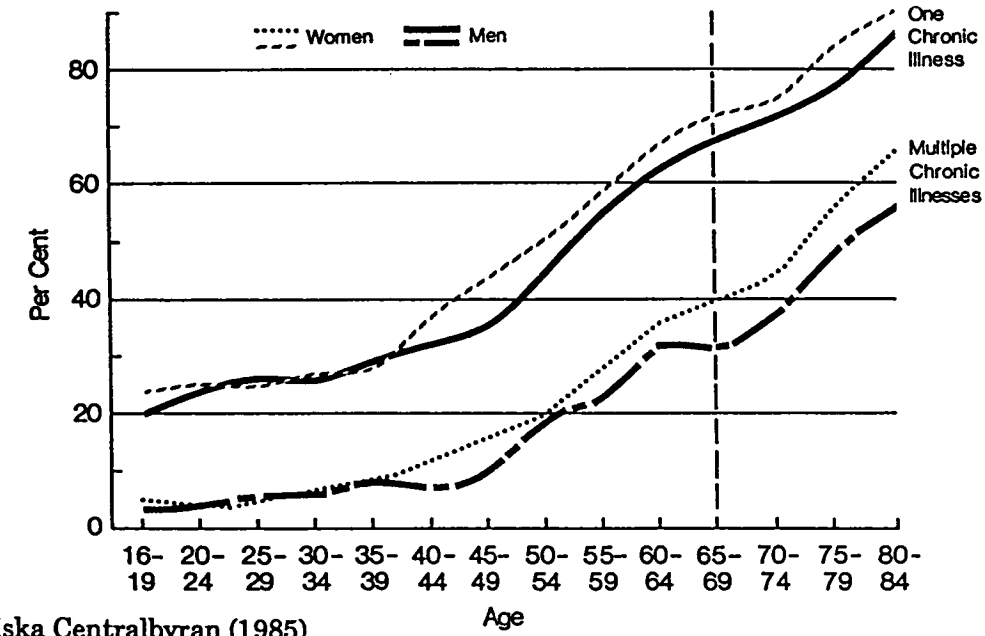
FIGURE 5:
PERCENTAGE OF PERSONS IN GOOD HEALTH WITHOUT DISABILITIES IN VARIOUS AGE GROUPS, SWEDEN ,1981



Source: Statistika Centralbyran (1985).

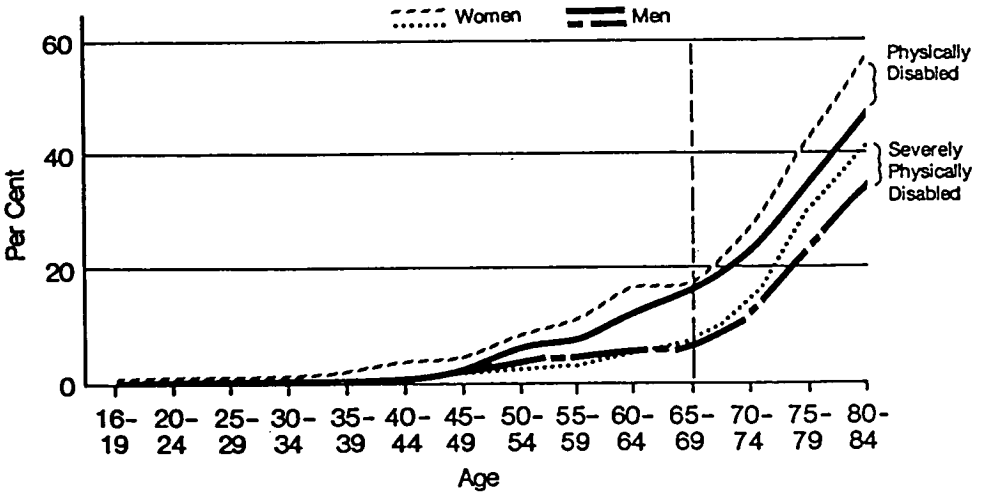
An examination of those in ill health and those with disabilities (Figures 6 and 7) shows that the very old form the highest proportion. Over half the persons aged 80-84 are physically disabled; about 50% severely disabled. (Note: Sweden uses stringent definitions for disabilities. A physically disabled person is defined as one who cannot get aboard a bus without difficulty or take a brisk walk for five minutes. A severely disabled person is one who uses an aid or help from another person to move). The proportion with disabilities in the 80-84 age group is double that in the 65-69 age group (Statistiska Centralbyran, 1985). Though data are not available for the elderly over age 84, there are indications that the rate of occurrence of disabilities continues to rise sharply with age.

FIGURE 6:
PERCENTAGE OF PERSONS WITH CHRONIC ILLNESS IN VARIOUS AGE GROUPS, SWEDEN, 1981



Source: Statistiska Centralbyran (1985).

FIGURE 7:
PERCENTAGE OF PERSONS WITH PHYSICAL DISABILITIES IN VARIOUS AGE GROUPS, SWEDEN, 1981



Source: Statistiska Centralbyran (1985).

Ability to Carry Out Activities of Daily Living Among the Very Old in Sweden

Information was collected from persons 65-84 with physical and visual disabilities living independently. Over 65% in the 75-79 group and over 75% in the 80-84 age group were found to need help with at least one of the following: shopping, food preparation, cleaning, personal hygiene or dressing (Figure 8).

Housing the Very Old in Sweden

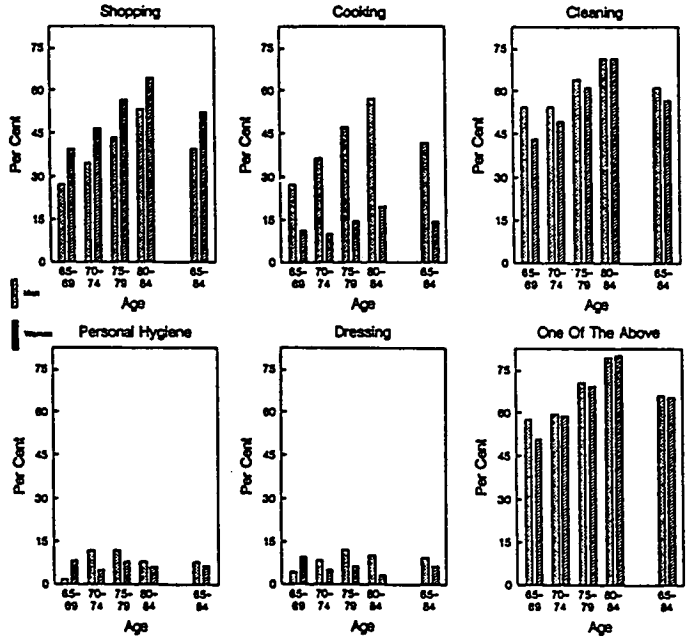
The very old are more likely to live in residential or care facilities than the younger elderly. About 64% of the residents of residential and care facilities are aged 80 and over (SOU, Dagens aldre, 1985). However, as shown in Table 4, the majority of the very old live independently within the community up to the age of 90. In spite of efforts to improve health care and support services to encourage independent living, there has been only a small increase in the number of very old living in the community.

TABLE 4:
HOUSING/CARE FORM, BY AGE,
IN SWEDEN, 1975 and 1982

HOUSING OR CARE FORM	AGE GROUP					
	65-79		80-89		90 & over	
	1975	1982	1975	1982	1975	1982
HOUSING FORMS	%	%	%	%	%	%
Independent home*	95.6	96.4	74.4	77.4	42.3	45.3
Residential care home (with 24 hour care)	1.8	1.4	15.0	12.2	32.1	29.1
CARE FORMS						
Somatic long term care	1.5	1.4	8.5	8.9	23.3	23.9
Psychiatric long term care	1.1	0.8	2.1	1.5	2.3	1.7

*Includes 28,500 serviced apartments. In 1982: 65-79 1%, 80-89 3.9%, and 90+ 5.1%. Fifty one percent of those living in serviced apartments are over the age of 79.
Source: SOU, (1985).

FIGURE 8:
PERSONS AGED 65-84 WITH PHYSICAL OR VISUAL DISABILITIES LIVING INDEPENDENTLY UNABLE TO CARRY OUT VARIOUS ACTIVITIES OF DAILY LIVING WITHOUT HELP, SWEDEN, 1981



Source: Statistiska Centralbyran (1985).

TABLE 5: HOUSING CHARACTERISTICS OF THE ELDERLY IN SWEDEN LIVING INDEPENDENTLY

HOUSING CHARACTERISTIC	AGE GROUPS				
	16-64	65-69	70-75	75-79	80-84
		PER CENT			
Single family house (mostly owned)	57.2	50.5	44.7	41.6	38.2
Apartment in multi-unit buildings (mostly rented)	42.0	46.8	51.6	48.5	42.2
Receiving housing allowance for elderly	-	27.7	46.2	60.9	58.0
In apartment, without balcony or outdoor space	8.0	10.6	10.7	12.5	14.4
Crowded (less than one bedroom + one room per person)	4.0	2.8	2.1	2.3	2.7
Not to modern standards	2.3	6.5	5.5	7.9	10.5
Insufficient space and not to modern standards	6.0	8.2	7.1	10.1	13.1
Bachelors apartment	4.9	6.1	7.4	10.8	14.7
Not wheelchair accessible	86.0	87.3	88.8	87.3	87.3
Live on second floor or higher without elevator	23.9	23.9	25.7	26.6	26.2
No access to kitchen	2.4	1.3	2.2	2.6	3.9
No hot water	1.3	4.5	3.7	4.1	6.0
No bathtub or shower	2.2	6.4	5.4	7.9	10.4
No toilet	1.1	4.0	2.6	3.2	3.6
No central heating	1.1	2.5	1.1	2.7	3.6
No washer	4.7	8.5	10.6	13.7	22.0
No refrigerator	0.4	0.8	0.8	1.2	2.0
Total in thousands	5,177	403	373	261	146

Source: Statistiska Centralbyrån, (1985).

Even late in life, more than one-third of the elderly live in single family homes that they own. In general, the very old have a lower housing standard than the rest of the population. As shown in Table 5, some live in older homes that do not meet modern standards, that have insufficient space or that lack bathing facilities. The primary problems are affordability and housing that is not accessible. Almost half of the elderly population receives an income tested housing allowance to pay for housing. Over two-thirds of the women age 75 and over receive the housing allowance (Statistiska Centralbyran, 1985).

Need for Help Among the Very Old in Sweden

The need for help increases with age. While approximately half of those between 65 and 69 managed with some help, three-fourths of persons between 80 and 84 needed help to live independently. Most of the help is provided by family members or by friends (Statistiska Centralbyran, 1985).

TABLE 6:
NEED FOR HELP AMONG PHYSICALLY AND VISUALLY DISABLED ELDERLY LIVING INDEPENDENTLY IN SWEDEN

HELP NEEDED OR RECEIVED	AGE GROUP			
	65-69	70-74	75-79	80-84
	PERCENT			
Receive some help	47.6	53.3	63.1	74.6
of which those that receive insufficient help	5.2	6.9	8.3	11.3
Need help but do not receive help	7.0	2.3	5.6	5.7
Neither need nor receive help	46.3	45.2	32.7	20.2
Total	100.9	100.8	101.4	100.5
Total physically and visually disabled persons in thousands	71	102	120	100

Source: Statistiska Centralbyrån,(1985).

Use of Public Support Services by the Elderly in Sweden

A variety of support services are provided to all elderly persons in need by municipalities on a non-profit basis, with costs shared by the national and municipal governments and user fees charged according to income. As shown in Table 7, the very old are major users of public support services. Over a third of those between 75-79 and over half of those between 80 and 84 used these services during a three-month period. In addition, transportation subsidies and services are provided to eligible persons selected by a needs-test.

TABLE 7:
PERCENTAGE OF ELDERLY PERSONS
USING PUBLIC SERVICES
DURING A THREE MONTH PERIOD IN SWEDEN

PUBLIC SUPPORT SERVICE		AGE GROUP			
		65-69	70-74	75-79	80-84
		PERCENT			
Footcare	Men	3.8	5.3	12.9	15.0
	Women	10.1	15.1	21.7	28.3
Haircare	Men	0.0	1.0	0.8	0.9
	Women	2.8	2.9	3.4	5.0
Meals sent home	Men	0.8	0.3	1.7	2.6
	Women	0.0	1.0	1.1	2.9
Food services	Men	1.5	3.0	4.7	5.7
	Women	2.1	2.5	5.2	6.4
Home help	Men	4.6	10.5	17.0	35.8
	Women	4.0	12.1	27.6	37.5
Intensive home help-every	Men	1.4	3.3	5.7	11.7
other day or more	Women	0.7	3.3	8.0	12.6
Use of at least one of the	Men	8.8	16.9	27.6	45.4
above services	Women	15.1	25.5	43.1	54.8
Transportation service*	Men	3.1	6.0	12.1	19.4
	Women	4.6	9.1	21.7	33.9
Total elderly living	Men	190	166	110	60
independently in thousands	Women	212	206	152	87

*This service is needs-tested.
Source: Statistiska Centralbyrån,(1985).

Costs for Care of the Very Old in Sweden

The gross costs for home health care, home help services, serviced apartments, residential care facilities and somatic long term care are estimated to be SEK 20 billion in 1982 prices (SPRI, 1985). (See Note 1 for a description of these housing and care forms). The greatest expenditures are for residential care facilities and for somatic long term care which are heavily populated by the very old (Table 8).

TABLE 8:
COSTS FOR CARE OF THE ELDERLY IN SWEDEN, 1981 in 1982 PRICES

ALTERNATIVE	NUMBER OF PERSONS (1000'S)	GROSS COSTS SEK MILLIONS	PERCENTAGE OF GROSS COSTS
Home health care	26	567	2.8
Home help services	306	3,740	18.8
Serviced apartments	27	1,141	5.7
Residential care homes	49	5,332	26.7
Somatic long term care	46	9,164	45.9
	*	19,944	100.0

*Cannot be added. Alternatives not mutually exclusive.
Source: SPRI, (1985).

Expenditures for care escalate sharply with increasing age. Those 85 and over represent only 7.5% of the elderly population but account for 35% of the costs (Table 9).

TABLE 9:
COST OF CARE FOR THE ELDERLY
BY AGE GROUP IN SWEDEN, 1981

AGE GROUP	NUMBER OF PERSONS 1000'S	PER CENT	TOTAL COSTS SEK MILLIONS (1982 PRICES)	PER CENT	PER CAPITA SEK
65-69	439	31.9	1,175	5.9	2,677
70-74	386	28.0	2,438	12.2	6,316
75-79	280	20.3	4,140	20.8	14,785
80-84	169	12.3	5,266	26.4	31,160
85-89	76	5.5	4,464	22.4	58,737
90-94	23	1.7	1,980	9.9	86,087
95+	4	0.3	481	2.4	120,250
Total	1,377	100.0	19,944	100.0	

Source: SPRI, (1985).

In summary, the picture of the very old that emerges from the data from Sweden reflects, in large part, the experience in other countries as well. A large proportion of the very old are single and women. The very old tend to have lower incomes and lower assets than other age groups in the population. They are in relatively good health, but a large proportion have various chronic conditions and disabilities. Most of them live independently, but a significant proportion live in older, lower quality housing that is inappropriate for aging in place. They are able to live independently by drawing on considerable and different types of help from informal and formal sources. A major proportion live in facilities providing services and/or health care or receive services at home. The very old are major consumers of publicly provided services in the health, housing and social service sectors.

MAJOR POLICY ISSUES FACING COUNTRIES WITH GROWING NUMBERS OF THE VERY OLD

As the elderly start to compose a numerically important group within a population, their needs and problems become the concern of the society as a whole. Societal responsibility for the care of the elderly becomes a moral and social issue. The problems related to aging become more politicized. Countries have responded by accepting increasing societal responsibility for the care of the elderly. However, most governments provide care for the elderly through a network of social welfare policies which serve other groups in addition to the elderly. Under political and public financial pressures, governments could eventually develop a comprehensive policy for care of the elderly.

Housing policy for the elderly is inextricably associated with other sectors of social welfare policy. Inadequacies in one sector seriously overload the other sectors. So the inter-related elements of social policy must be considered together.

The following policy issues arise from the experience of western nations with a high proportion of elderly persons within their population.

1. Policies to guarantee income for the elderly:

Financial sufficiency is a major criterion for promoting autonomy and independence of the elderly. Therefore, almost all countries rely first and foremost on an income guarantee policy. As people live longer and retirement from the work place is accepted as part of the normal life cycle, societal support for retirement income has been increasingly institutionalized and in the public domain. Public or publicly regulated pension programs have been instituted in most countries. There is usually a universal, indexed payment which may or may not be

related to earnings in the past. In addition, pension supplements or income supplements are provided to those who have inadequate income. These may include allowances for widows, for disabilities and even housing allowances.

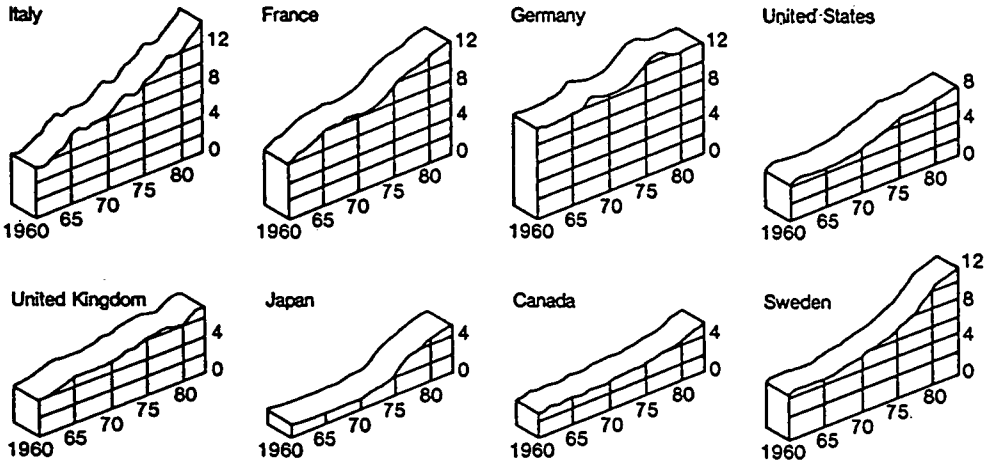
Public pension expenditures vary with a country's political commitment to social welfare and its economic status, but they are major expenditures in most countries (Figure 9). Rapid and serious changes in the age structure of a population could result in substantial increases in pension program expenditures. The OECD estimates that in the seven largest OECD countries, (Canada, France, Germany, Italy, Japan, United Kingdom and United States) without any change in the real level or scale of benefits provided, projected increases in the number of people aged 65 and over and increases in life expectancies would almost double the cost of pension programs by 2040 (Maguire, 1987).

To deal with the threat posed by population aging, most countries are raising the retirement age, increasing work options for older workers and increasing possibilities for personal saving and private pension plans. If these steps are insufficient, countries are faced with unpalatable options. The contributions of the working population may be increased, pension payments or the indexation formula may be reduced. These latter steps will require greater expenditures for targetted selective programs that provide income supplements for the poor elderly, many of whom will be very old. Housing allowances may be required for a major proportion of the elderly.

2. Policies to provide insured health care:

The physical and financial autonomy of individuals is safeguarded by policies providing insured health care. Most countries ensure that good quality health care is

FIGURE 9:
PUBLIC EXPENDITURES AS A PERCENTAGE OF GDP IN SELECTED COUNTRIES, 1960-1983



Source: Holzman (1986).

available to the population, free or at reasonable cost, by providing a national health care or insurance program. Such a program can vary in coverage from partial (hospitalization expenditures only) to comprehensive (including transportation costs for a visit to the doctor). The share of public expenditures in total health care costs expressed in terms of GDP varies considerably from country to country (Figure 10).

The elderly are major beneficiaries under these health care programs. With increased longevity and with increasing numbers of people displaying the characteristics of aging which require health promotion, health maintenance and medical services, health care for the elderly is increasingly accepted as a government responsibility.

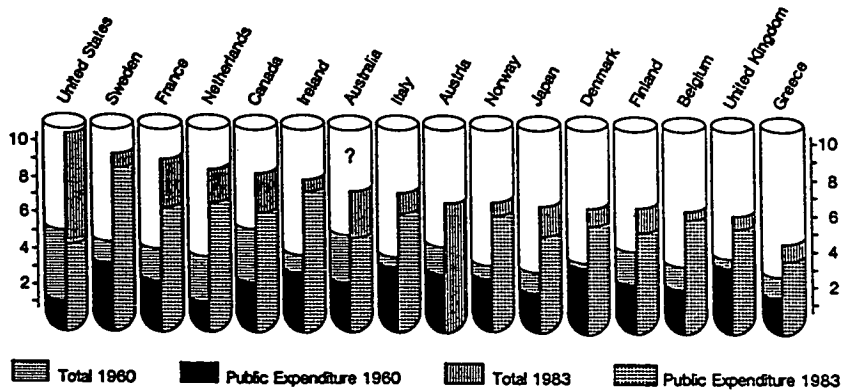
The growth in the numbers of persons who are very old has tremendous implications for social welfare policies. The OECD estimates that in the seven largest OECD countries, the cost of health care programs will increase by forty per cent by the year 2040 (Maguire, 1987). In Canada, for example, it is estimated that at present levels of hospital utilization by the elderly, every existing hospital bed in the country will be required for the elderly by the year 2021 (CCSD, 1980).

Rising health care costs may necessitate higher taxes even if income related users fees are instituted. Steps will have to be taken to ensure that costs of health care do not impoverish the elderly and that inability to pay does not prevent access to health care.

3. Policies to provide appropriate housing:

Almost all countries support, in one form or the other, the position that elderly people should be able to stay in their own homes and that they should be assisted to do so. The most optimistic estimates suggest that

FIGURE 10:
TOTAL AND PUBLIC HEALTH CARE EXPENDITURES AS A PERCENTAGE OF GDP IN SELECTED COUNTRIES, 1960-1983



Source: Schieber (1985).

about two-thirds of the very old population can be expected to do so without risk if the appropriate support services are available. For this group, the most common housing problems are lack of sufficient income for a dwelling of adequate quality, lack of a home that is appropriate for changed needs, lack of tenure security and lack of required services which are home delivered or within walking distance of the home. Other very old persons require accessible service-rich housing. Building up a stock of such housing takes considerable time and a great deal of capital.

The affordability problems of the very old may be handled through increased income support payments or housing allowances. Some elderly home owners live in homes requiring major renovation and high maintenance costs. Renovation grant programs will be more acceptable than loan programs to very old home owners who wish to upgrade their homes to present standards or to improve the accessibility of their homes. The high cost of building and operating purpose-built and service-rich units for the elderly has resulted in insufficient numbers of units in the market or units at a cost that is beyond the means of a large proportion of the very old. Legal and funding restrictions limit public financing of facilities that provide both shelter and care as they are eligible under neither the housing nor the health sectors. When such housing forms are publicly funded, countries are unable to afford the massive investment required to keep in step with demand and to provide equal access to these facilities across the country.

4. Policies to provide social services:

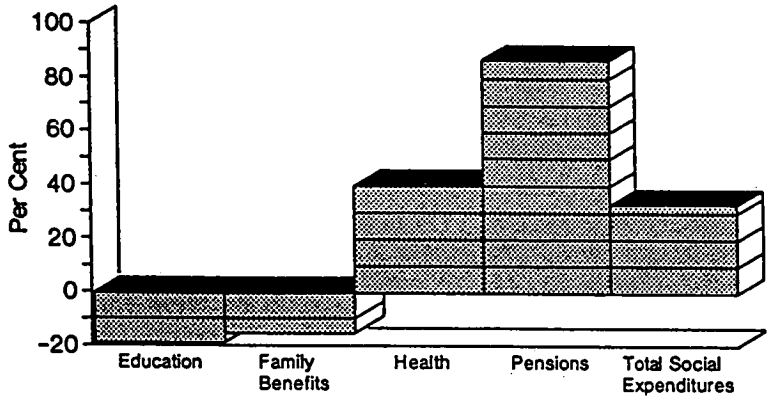
As the need for social services is recognized for the population as a whole, and not only for those in financial difficulty, governments provide social services as part of their social welfare policies. The elderly, particularly the very old, are major users of social services, whether they are provided in their

homes or in the community. But rising costs, lack of trained personnel and administrative difficulties have been factors retarding the development of social services. A major problem is the provision of social services of equal quality that are equally available throughout the country.

5. Social welfare policies for an aging population:

Because the elderly, particularly the very old, depend on public programs such as income support, health care and social services, public expenditures will need to grow substantially in the coming years to serve the growing demand. The OECD estimates that in the seven largest OECD countries, social expenditures will grow by a third by the year 2040. With such a massive increase in spending to maintain current programs, the potential for improvements in coverage, benefits and services is small. Meanwhile, in most countries falling birth rates have led to declining proportions of the young. Much has been made of the possibility of "intergenerational transfer" where outlays for social expenditures now directed to the young may be redirected to the old. However, the social expenditure on the elderly exceeds that on the young by a factor of between two and four in most countries. If expenditure on education and family benefits were reduced directly in line with the projected reduced number of young people, outlays on these programs would decline only about 20% and 15% respectively (Maguire, 1987) (Figure 11).

FIGURE 11:
PROJECTED CHANGE IN SOCIAL EXPENDITURES DUE TO DEMOGRAPHIC FACTORS, 1980-2040 AVERAGE OF SEVEN OECD COUNTRIES: CANADA, FRANCE, GERMANY, ITALY, JAPAN, UNITED KINGDOM, UNITED STATES



Source: Maguire (1987).

POLICY IDEAS FOR HOUSING THE VERY OLD

The urgency of the housing-related needs of the very old cannot be denied even in the present climate of financial austerity. In general, policies are directed towards providing financial assistance, assisting the very old to age in place, reducing institutionalization and providing residential service-intensive solutions. The major models for the care of the elderly are remarkably similar across countries and may be the result of "societal learning" resulting from international research and exchange of information.

1. Policy measures to provide financial assistance for housing:

These measures provide preventive and supportive financial assistance to minimize the reliance on totally publicly financed solutions. Financial assistance is provide for annual housing expenditures, for home renovation and home purchase. New financial instruments such as loan stock schemes and leasehold shared equity schemes are being designed, particularly in Britain, to overcome the resistance of the very old to take on the burden of mortgage debt. Financial assistance is provided for the repair, renovation and maintenance of older housing, which is often occupied by the very old. Better measures of assets are used in income testing of the elderly, allowing retention of the primary residence. Supplementary assistance is made available to former homeowners recognizing the fact that the sale of the primary residence, in many cases, does not result in sufficient funds to cover housing and service needs of those very old who cannot continue to live independently.

Housing allowance are considered income support and therefore are available to both low income owners and renters.

Most of these measures draw heavily on public funds, though ways to leverage private capital, including the assets of the elderly, are being sought. Most countries find

it necessary to have supply side programs (i.e., to construct/provide some housing and services) in addition to demand side financial assistance programs (financial assistance to the consumer).

2. Policy measures to provide security to renters

In France, landlords are required to find, for persons age 70 and over with incomes below a specified sum, an appropriate and affordable apartment in the same neighbourhood before terminating the lease. In Scandinavia, the elderly living in residential care facilities are provided with a rental lease and are covered by the laws governing rental property. They have the right to retain their unit even when hospitalized and are secure in the knowledge that they can return to their prior dwellings. These measures can only be implemented in countries where tenant organizations are strong and where there are laws favouring the tenant.

3. Policy measures to assist in relocation:

The relocation process is difficult for the very old. The physical difficulties of engaging in a housing search may be daunting, particularly because the choice of appropriate and affordable housing may be very limited and located in unfamiliar neighbourhoods. The housing decision is heavily influenced by the availability of required services. The actual move may be expensive, physically exhausting and traumatic. In countries such as Sweden and Denmark, publicly operated housing offices provide a free service for renters. Vacant private and public rental units are listed with the office. The very old benefit because the housing office conducts the search and provides them with the best choices for their consideration. Working in close concert with social service agencies, the housing office directs those elderly requiring care or services to units where services are provided or available. The effectiveness of the housing office depends on the mechanisms in place for listing available units with the office.

The very old may have to rely on moving companies to relocate, and the costs involved may be difficult for those on fixed and low incomes. In Belgium, an allowance is provided for moving, transit and installation costs.

4. Policy measures for renovation:

Since the very old live in older buildings, many of their buildings are targets for renovation. If their needs are taken into consideration, the very old aging in place in older buildings may be major beneficiaries of renovation programs. The most successful programs have the following characteristics:

Mandatory requirement for community wide planning and public participation. Since the immediate neighbourhood is of vital importance, renovation funds are made available only after a comprehensive plan is drawn up, with residents input, so that even the needs of the minority are addressed. The plan includes improvements to be made to buildings, the impact of the renovations on rents as well as the renovation or addition of facilities for community-based social service.

Advantageous loans and subsidies made available for the qualitative improvement of the housing stock and the neighbourhood. Renovation goals should be to improve space, equipment, services and accessibility standards in units, buildings and the near environment. Renovation must be encouraged regardless of the present tenants so that the stock of appropriate dwellings in accessible neighbourhoods is available in the future to the elderly who age in place. In Sweden, advantageous loans are available to housing project owners for community services for the elderly which are developed in spaces in renovated building projects or in spaces in adjacent buildings. These spaces may be used for housing related services such as day centres for the elderly, cafeterias where the elderly pay less for meals, or community

services such as chiropody or counselling. To be eligible for the advantageous loans the amenity or service space must lie within 500m of the housing project.

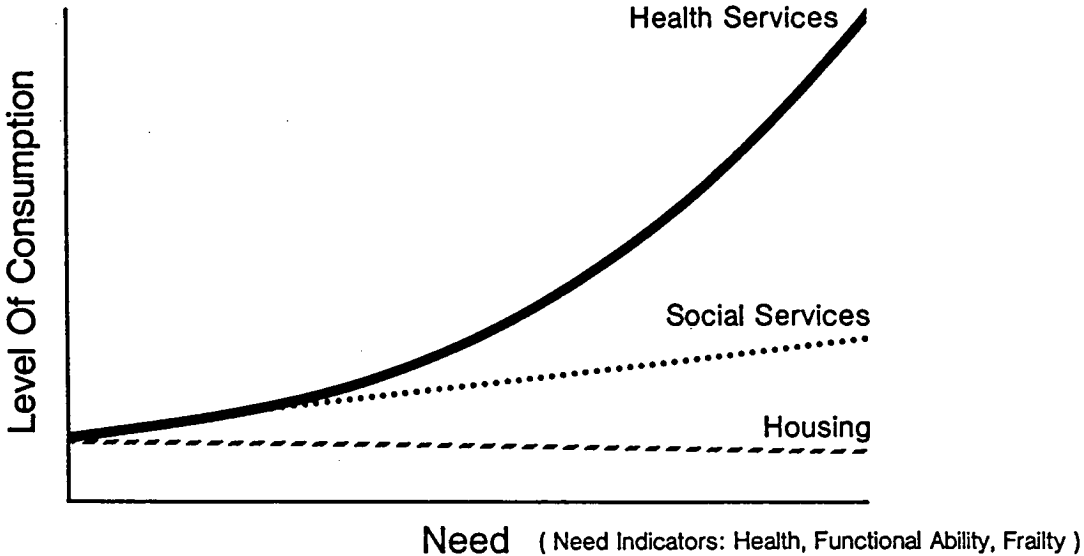
Honour the rights and needs of the tenants. The renovation costs include additional costs to compensate the tenants and to safeguard their rights. The tenants have the right to remain in the building during renovation, if possible, and the landlord pays for the cleaning of the unit after renovation is complete. If the building must be emptied, the tenant has the right to an evacuation apartment of comparable standard. The landlord assumes the cost for the move to and from the evacuation apartment. The tenant has the right to move back to the renovated apartment in the same building. If, due to enlargement of units, there is a reduction in the number of units, tenants who have lived there the longest have the first right of refusal.

5. Policy measures for improving the quality of housing:

This major thrust for housing policy has been effectively used to benefit the very old, many of whom have the lowest quality housing. Many of them lived under crowded conditions, particularly in residential care facilities. A minimum standard for housing has been established in Sweden and every citizen has the right to housing of this standard (See Note 2). This right is provided to all persons regardless of their need for services or care. (Compare this with models where lower standards of accommodation are considered acceptable to provide services and care). It follows then, that the consumption of good quality housing is constant and that the consumption of services and care varies according to need (Figure 12).

The fundamental requirement for the success of this approach is the availability of housing which meets or exceeds the minimum standard and the availability of housing of various sizes, costs and design. Housing programs and subsidies are put in place to achieve this objective.

FIGURE 12:
A MODEL OF THE RELATIONSHIP BETWEEN FUNCTIONAL ABILITY, HOUSING, SERVICES AND HEALTH CARE NEEDS



This policy stance has resulted in the upgrading of the homes of many elderly persons and naturally occurring retirement neighbourhoods. But it has also had a major impact on the collective settings where many of the very old live.

The permanent address of the elderly person, regardless of the consumption of care or services, has been defined in Sweden as his/her residence. (Medical or health care institutions where residence is temporary are not dwellings). The elderly are not required to live in a lower standard of housing if they require services or care. As a consequence, housing subsidies are available for residential facilities, provided that they meet the minimum standard for dwellings, and renovation subsidies are available to upgrade single room accommodation to minimum standard.

6. Policy measures to achieve de-institutionalization and promote normalization:

The process of de-institutionalization has been problematic for governments and painful for the residents. To overcome the problems, several positive policy steps have been taken. The first is to acknowledge that the problem is with the facility, not the residents. In Sweden, housing subsidies are made available to renovate institutions into residential facilities that meet minimum housing standards. The residents are then given rental agreements and required services are purchased. Secondly, very recently, a decision has been made not to terminate institutions until they are no longer needed or better alternatives are available and accepted by the public. For example, in Sweden very old psycho-geriatric patients have been moved into group homes when such homes have become available. Thirdly, the growth of new institutions has been severely restricted and limited to serving persons who cannot be cared for in any other setting. However, the growing population of the very old requires a re-examination of the number of spaces in institutions that will be needed to meet future demand. In 1982, the

estimated number of institutional spaces per 100 persons aged 80 and over ranged from 32 to 39 in the Nordic countries (Daatland and Sundstrom, 1985). Fourthly, the role of institutions, particularly residential care homes, is being re-evaluated. It is likely that a new model of residential care homes will evolve. In Sweden, there has been public protest against the closure of residential care homes with 24 hour on-site services. Many people feel that at advanced stages of frailty, disability or age, the level of need satisfaction possible in a residential care home cannot be duplicated with home care. Even when daily living activities can be carried out independently or with some help, the real need may be to have reliable personal help on call. However, the shortcomings of the present residential care homes are recognized and there is public support for upgrading the quality of accommodation and providing security of tenure in residential care homes.

7. Policy measures encouraging "aging in place":

Because of the potential benefits to the elderly and the expectation of savings in public spending, much effort has gone into encouraging "aging in place" in most western countries. However, in Sweden the effort has been tempered. There is a general feeling that "aging in place" is a good philosophy but not a good rule. Independence is an important goal but the responsibilities of autonomy should not be burdensome.

Certainly without persuasion, many elderly persons choose to "age in place" and move only when the stress becomes intolerable, usually when they are very old. Autonomy has the greatest meaning to those who have the power to exercise it. The very old person should be given the choice to exchange some curtailment of independence for other vital needs such as security. It could be argued that personal choice is restricted rather than widened by a policy stance favouring "aging in place" and that the very old person may be forced by society to continue to live independently when he/she may prefer other solutions. Further, government support of "aging in place" has resulted in housing and service solutions for the younger

and healthier elderly persons to the neglect of the frail and the very old.

Also a consideration is research showing that while the elderly in institutions have poorer health than the elderly in communities, they consume less health care and are hospitalized less frequently (Kane and Kane, 1985, Shapiro et al., 1987).

As the numbers of the very old increase rapidly, there is need for a better balance in the housing policy goals for the elderly. Since "aging in place" occurs naturally with private initiative and capital, government effort should be directed to encouraging such initiatives while at the same time focussing attention and resources on the housing needs of the very old.

8. Policy measures for the provision of housing-related services:

Co-ordination of housing and services has been a major problem. Former policy measures have focussed on relating services *to housing*. The new European thrust is to consider services a public utility related to the needs of the *individual*. Services are subsidized and available to all according to need and charges are according to income. The range of services is, therefore, not limited by the housing form or the mode of delivery. Services are customized providing variety and flexibility in the range and intensity available to the user.

These measures have tremendous value to the very old. Their housing decision is simplified because they know that services are available regardless of their housing choice. Services are cost shared by the national government provided that the full range of services of a minimum quality are provided by the local government. Services include home health care, homemaker services, food services, shopping, hair and foot care, transportation, home maintenance and snow removal. The services may be provided in a variety of ways and are knitted together by transportation of the individual to the location of the

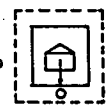
service or delivery of the service to the home or building. The very old are assisted by social service personnel to organize the package of services required for their particular needs (Figure 13).

However, in spite of heavy emphasis on reducing or delaying institutionalization through community provision of care and services, the reduction in the proportion living in institutions have been small and the growth in services provision has been slow.

International experience has revealed the limitations of home delivered services in meeting the needs of the very old. Denmark, Sweden and Norway have invested heavily in home care. About a quarter of the elderly households receive it. (Number of households with home care per 1000 elderly households in 1980: Denmark - 262, Norway - 224, Sweden - 276. Daatland and Sundstrom, 1985). On average, the number of hours provided to those elderly households receiving home care was 3 to 4 hours a week (Sundstrom, 1986). Most of the elderly receiving home care are aged 80 and over. There is evidence to show that most elderly continue to receive most of the assistance required from informal sources and, when necessary, use paid help as well. The development of home care services has been hampered by the burgeoning public costs and the lack of trained personnel who are willing to take on shift work (day shifts and night patrols). A number of elderly persons live in dwellings which impede the efficient delivery of home care. The difficulty of providing intensive and regular care for each individual by a small team of care givers has been an administrative problem.

In summary, the gains in terms of reduced institutionalization, improved quality of life and decreased burdens on the family that were expected to result through home care have not yet been demonstrated.

FIGURE 13:
SCHEMATIC REPRESENTATION OF THE SERVICES AVAILABLE TO THE VERY OLD IN DIFFERENT HOUSING AND CARE FORMS

Mode Of Service Delivery	Independent Unit	Serviced Apartment	Residential 24 Hour Care	Long-Term Care
On-Site In-Home 	Telephone Assurance	Security Home Maintenance	Personal Care Home Maintenance Security	Health Care Food Service Personal Care Hair & Foot Care Rehab/Therapy Security
On-Site Out-Of-Home 			Food Services Foot & Hair Care Rehab/Therapy Day Care	
Off-Site In-Home 	Home Care Personal Care Home Health Care Home Maintenance Meals Delivered	Home Care Personal Care Home Health Care Meals Delivered		
Off-Site Out-Of-Home 	Community Health Care Food Services Hair & Foot Care Rehab/Therapy Day Care	Community Health Care Food Services Hair & Foot Care Rehab/Therapy Day Care		

9. Policy measures assisting family care givers:

The very old overwhelmingly prefer to be assisted by informal care givers. This has placed a heavy burden on family, particularly working women with children.

Some countries provide financial assistance to care givers of elderly family members through the tax structure. In Norway, the service of the family member is purchased since it replaces home care services which otherwise might be needed. In 1984, twenty-nine per cent of those providing home care were paid family members (Sundstrom, 1986). Paid leave for family care givers caring for the very old is under consideration in Sweden. In Norway, pensions are available to unpaid women who have spent years caring for the elderly.

A number of supportive services are also being developed to ease the burden on care givers. Training is provided for those caring for the very old. Respite services and replacement services are available. One such program is "alternating care" where the elderly person receives treatment, therapy or care in a facility for two weeks and lives at home for two weeks (See Note 3).

10. Policy measures directed to the very old:

Most people have to make major decisions regarding their housing and their service needs when they become very old. Many live under conditions of stress or risk until a precipitating event leads them to re-evaluate their situation. Some governments are considering instituting a national assessment program at the time of retirement for all elderly persons. Their health, financial, housing and service needs could be monitored and assistance provided according to need. There has been considerable resistance by the elderly to this approach because it appears as an intrusive measure to them. Other countries assess the elderly person the very first time some publicly provided service is requested. In addition to being of value to the very old whose needs can change rapidly, information from

the assessment program is valuable for macro-planning of public services.

It is becoming clear that there may be a sort of generation gap between the young old and the very old, particularly the very frail, ill or disabled very old and the usually healthier younger elderly. Experience has shown that traditional solutions for all persons aged 65 and over may not be sufficient. Combining the very old, the very frail or the very disabled with other groups has been difficult. Experimental solutions such as age and function based criteria for policies and programs are being tried out. Sensitive means of dealing with the needs of the elderly according to their preferences are being sought.

Furthermore, the special problems afflicting the very old are receiving policy attention. For example, group homes and day centers are not the best solutions for all types of very old elderly with senile dementia. Each case must be evaluated and treated according to need.

POLICY IMPLICATIONS FOR CANADA

Canada is on the brink of an "elderly explosion" and can benefit from the experience of countries which have dealt with the phenomenon. Although the massive numerical increase of the very old is still some years away, Canada must begin to plan now.

It is likely that the very old of the future will be healthier and better prepared financially for retirement. Still, many of them will be heavy users of both private and public resources and services in the later years of life.

Canada is fortunate that it has a well developed social welfare structure in place. However, the limitations of the assistance available should be recognized and corrected in advance of the growing demands that will be made upon it. Despite the political tendency to focus on the short term, a long term plan for the impending change must be developed. Phased investment and steady construction activity are necessary to avoid a painful gap between the supply and

demand of appropriate housing and care facilities at the turn of the century. The focus of effort should move from the search for innovative solutions to ensuring that successful solutions are available to every elderly person.

The ideas culled from international policy initiatives show some of the strategies which other countries have used to solve the housing problems of the very old. Canada must select transferable policy ideas and adapt them to its own needs. A number of social and moral issues must be decided in light of economic realities as Canada determines the nature of public responsibility for the care of the elderly. The challenge will be to develop a uniquely Canadian solution for the care of the very old that is socially and fiscally responsible.

NOTES

1. The Swedish housing and care forms are described so that they might be compared with forms elsewhere.

   Serviced apartments: This relatively new form, built and operated by municipalities, meets minimum housing and space standards and are rented by the elderly at market rates. Housing allowances are available to those on low incomes. Central alarm systems are common. Some services may be available on site such as a restaurant, activity rooms and doctor's or podiatrist's office. The elderly resident pays for the services used, whether on site (restaurant) or in the community (home care).

   Residential care homes: These are operated by municipalities. The elderly live in small apartments or in rooms. These facilities are staffed around the clock with personnel considered home helpers. A package fee includes rent and services such as meals, cleaning and personal care. These are complemented by community services such as health or nursing care. Residents pay 70% of their basic pension plus 80% of other income. These homes are being shut down or are being upgraded and converted to rental serviced apartment units. The level of service to be provided and the charges are under discussion.

   Somatic long term care: These are health care facilities operated by counties, emphasizing treatment and rehabilitation. However, there are many long term residents in these facilities. Costs for the first year are covered under health insurance after which the resident pays a nominal fee of SEK 55 (1987) a day. Residents live in single or shared rooms with attached bath. Only very dependent or ill elderly are eligible for long term care. Residents are entitled to their housing allowances for one year so that they can retain their homes.

2. Housing policy is an integral part of the Swedish welfare policies. The goal for housing provision "should be to provide the entire population with healthy, spacious and functionally equipped housing of good quality at

reasonable prices". Housing codes and standards deal with both qualitative and quantitative requirements. The minimum standard for housing a single person requires one bedroom in addition to another room, kitchen and bath. Housing loans for renovation, however, are available for one room, kitchen and bath. Housing requirements for the elderly are presented in "God bostad for aldre" and "Bostadsgrupper" issued by the Swedish Housing Board. In addition, a parliamentary decision regarding households with special needs states:

- Every one has the right to a home where one's integrity and authority is secure.

- Every one that needs support and help in daily life or health and other types of care has the right to receive such services in the home.

- Every one regardless of the need for support, help or care has the right to a dwelling of good space, amenity and accessibility standard in an environment which enables active participation in society.

For more information, see Brink (1986).

3. The medical facility in the town of Hudiksvall in Sweden has pioneered the concept of alternative care (vaxel vard). This concept is being tried in other towns as well. As yet, no evaluation is available.

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12

ASPECTS OF HOUSING AND SERVICES IN SWEDEN AND DENMARK TO ASSIST THE VERY ELDERLY TO LIVE IN THEIR OWN HOMES

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Sweden and Denmark recognized the special needs of aging persons in the early 1950's. Both countries implemented policies through special legislation, including housing legislation. Some of the important policies concerning older persons exist on a local level rather than on the national level. For example, municipalities are housing elderly persons quite independent of any national policies. This is an important distinguishing feature of housing policy in Sweden and Denmark in contrast to Canada or the United States. Another distinguishing feature is that housing solutions initiated in Sweden and Denmark were done at a much larger scale than in other countries.

This chapter will examines aspects of housing and services in Sweden and Denmark intended to keep the very elderly in their own homes.

SWEDEN

In 1983, the majority of persons aged 65 and over resided in owner-occupied dwellings. The Social Service Act of 1982 (the Socialtjanstlayen) entitles elderly persons to receive government assistance to remain in their own homes. The intent of this act is to lessen the demand for institutional care. This is a reversal from the 1950's when institutions were created to care for the elderly.

The Swedish government has set out five principles to guide housing development at the national, county and municipal levels. The five principles are normalization, holism, self-determination, influence and participation, and properly managed activation.

The Swedish Parliament states that "A handicap is a relationship between the person and the environment." This statement reflects the concept of the handicapped as an environmental feature rather than a person's condition. As a result of this attitude, the Swedish government places responsibility on developers, government officials, architects, and planners to ensure that environments are planned so they do not handicap the user.

In both Sweden and Denmark particular emphasis is placed on "retro-fitting" existing housing units with equipment and design features that allow disabled and elderly persons to perform the activities of daily living. This retrofitting is accomplished through relocation of existing components in an interior and the utilization of products, the design of which is based on ergonomic studies. Elderly and disabled persons, and their home service helpers can function more effectively by saving human energy and time in these environments. Products, such as adjustable lavatories, cabinetry and appliances benefit all users.

Other benefits of retrofitting are that:

1. an initial one-time charge for retrofitting a dwelling to accommodate elderly or disabled persons is far less costly than potential years of institutional care.
2. retrofitting eliminates relocating elderly and disabled persons, and allows them to remain in familiar neighborhoods. Elderly persons tend to cling to familiar surroundings and tolerate much to remain in them.
3. retrofitting often has rehabilitative effects. By giving disabled and elderly persons the opportunity to perform basic daily tasks, such as food preparation, they may be encouraged to do other, even more complex tasks that reduce the need to employ caretakers and that prepare them for useful employment.
4. design modifications incorporating safety features, minimize accidents in the home.

Sweden has utilized a 1959 Housing Adjustment Grants Program to retrofit 160,000 homes. Most of the adaptations

are to kitchens, to install adjustable kitchen cabinetry; to bathrooms, to replace tubs with showers; and to doorways, to widen them for wheelchair access. The UNIVERSAL DESIGN concept is applied to the products used.

Sweden's elderly housing policy places considerable emphasis on enabling health care services to take place in the home. This policy, however, could not be carried out without the assistance of home helpers. In 1985, there were approximately 71,000 home helpers. They provided assistance to 274,000 elderly persons in their own homes.

The ages of the recipients and the number of hours of care varied, but in 1985, nearly half of the persons aged 80 and over used home helpers about three to four hours per week. Married couples utilized less home help. In some cases the very old received three hours of home help daily prior to going into a care facility.

The very elderly also require ancillary services. The service most often used is the on-call transport system.

Chiropody service is used by a small portion of the elderly and is considered a very necessary service.

Food services are available at day centres and at subsidized prices. However, only a small portion of older Swedes use the service, and even a smaller number use meals-on-wheels. The low utilization rates are due in part to the meal preparation services provided by the home-helpers.

Medical care centres are available to everyone. Many are located in service or day centre buildings. Persons 74 years of age and older are the predominant users of this service. Home medical care is provided by district nurses, who in many instances are familiar with the elderly persons in their districts. Presently, Sweden is reorganizing its medical care system to incorporate the medical care centres with the home helper service.

Trends in Sweden

In Sweden, housing options for elderly persons are varied. People can choose from: rental apartments, home ownership, pensioner's dwellings (apartments and flats in a pensioners' home), serviced apartments and residential care homes.

During the 1970s elderly persons were moving out of old-age homes and into serviced apartments. These apartments were part of large complexes with a staff on duty 24 hours a day. The trend is now to scale down the large complexes into smaller buildings and to update the homes of older persons and create more serviced apartments.

Day centres are being constructed in serviced apartment buildings and in existing residential homes. Day centres usually have a restaurant, activity rooms for weaving, metal and woodworking, and areas for physical therapy and exercise. These facilities are open to all elderly persons in the community on a drop-in basis.

Transportation between day centres and homes of elderly persons is subsidized. In sparsely populated areas, home help is delivered with service buses. The buses bring home helpers to assist with household tasks. The home helpers also provide diversional activities.

New trends in the provision of long-term care are also taking place. The combination of a special transportation system and assistance from family enables frail elderly persons to go to care centres during the day, and yet remain in their own homes. For elderly persons with senile dementia, city governments have established residential homes in order to provide a more home-like environment. Sweden is also encouraging private groups to experiment with the care system by providing housekeeping assistance along side the government home care helper.

NOTEWORTHY PROJECTS

PERSBORG PROJECT

The Persborg Project is a retrofitted high-rise apartment building for elderly persons. In this building, walls were removed to make one apartment from two, and elevators were installed. Kitchens and bathrooms underwent extensive retrofitting for the installation of vertical and adjustable cabinetry and fixtures. The entrance ways were enclosed to provide shelter. The original tenants were moved into remodeled apartments, and then their own units were renovated. The tenants had the option of living in a new unit or returning to their original, now retrofitted unit.

DENMARK

In 1982, the Danish Commission on Aging, which makes recommendations to the government on policies affecting elderly Danes, recommended that all supportive services be available to elderly persons who desire to live independently in their own homes. In Denmark, the housing of elderly persons is considered a responsibility of Danish society. The major objective of Danish housing policy is to offer a variety of dwelling unit types and services to meet a broad range of need. Housing design is a key element in this policy. They consider good design as an enabling factor for older persons to function in their homes in familiar neighbourhoods as long as possible. The current plan in Denmark is to phase out all nursing homes within the next 15 years.

The phrase "dwellings for everyone" represents the goal of all Danish housing organizations. The Danes believe that housing units should be constructed so that anyone can use them, including older persons. As many older persons do not have the necessary income to purchase housing and services, the Danish government provides subsidies to county and municipal governments for housing and service programs.

In Denmark, grants for the entire cost of retrofitting homes are provided. One of the requirements for this funding is an analysis of the structural worthiness of the dwelling and

an inspection for barriers to independent living. Many buildings have been rehabilitated for senior housing. For example, an old factory in Thistead was rehabilitated for housing, as was an abandoned military barracks.

Today, the aging of the Danish population has prompted a rethinking of many issues, including housing and interior design. Traditional building codes and building practices in Denmark did not anticipate the longer life expectancy of Danish society. As a result, building codes and other statutory requirements have been amended to avoid the need for expensive retrofitting in the future. Their national housing policy now requires a "built-in future" use for all new housing units. The effects of age and disability are minimized through a policy of forward planning, which removes physical barriers and creates conveniences. Forced relocations are minimized because these new units provide support to persons experiencing changes in their health status.

Building codes in Denmark have been written to reflect important design considerations for elderly persons. Specific items deal with: access space, corridors, bathroom and kitchen layout and fixtures, floor surface treatments, wall surfaces, appliance controls, lighting, and window treatments. Exterior code items deal with: parking spaces, sidewalks, and street furniture. There are also items pertaining to selecting building sites for housing.

Services

Health services are organized and delivered at the municipal level from the day care centres, sheltered housing and nursing homes that have been built for older persons.

The day nursing home is one such health service. Often the day nursing home is part of a larger nursing facility. Persons receiving this service are charged for care and meals at the same rate as care provided in the home.

Sheltered dwellings have become very important living arrangements in the Danish housing program for elderly persons. Sheltered dwellings provide 24 hour staff coverage

and home care helpers. Residents are independent in that they manage their own affairs. Sheltered dwellings are now being built throughout the country.

Another type of health service is the day care centre. Day care centres were established by municipal authorities for the purpose of maintaining physical and mental health. Foot care and handicrafts are some of the other activities that take place in day care centres. These types of services and activities are viewed as a form of health promotion in Denmark.

Noteworthy is Denmark's training of home care helpers. Programs are accredited and require 300 hours of course work in psychology, gerontology, social welfare, and health care of elderly and disabled persons.

Home nursing service is coordinated with the home help service and is provided free of charge on a medical referral. Nurses provide treatment prescribed by doctors. Seventy-five percent of those over age 67 are provided home help assistance for six or fewer weeks, 14% receive 7-12 hours of help per week, and the remainder, 13 hours or more per week. The demand for this service increases with the age of the clients. However, some Danish authorities are concerned that it may not be cost-effective to care for elderly persons in their own homes, when they need constant nursing care. Nursing homes may be more appropriate in these situations.

Noteworthy Projects

The following is a brief overview of selected housing projects in Denmark which illustrate the workings of Danish housing policy.

EGV Bolig Fonden

The EGV is a Danish organization that has built housing for elderly persons with government funds. The EGV ("ensomme gambles vaern" -- lonely elderly organization) was founded in 1910. The EGV Bolig Fonden is one of the largest

nonprofit housing associations in Denmark. The EGV has 33 large housing centres and 50 smaller homes.

The EGV Parken Hellerup is one such housing project. Each unit in this centre has a little garden or balcony which provides access to the out-doors. The units have windows on two sides, allowing for viewing to the front and back. Each unit is designed to accommodate a single person or a couple. At 60 square meters, a unit includes two rooms, a kitchen and a bath. Amenities in the project include an indoor swimming pool, rooms for massage and therapy treatments, and a common dining room.

The Lysloftebakken housing development was built by the EGV Building Association with funding from the Lion's Club. Each unit opens on to a large circulation space and each unit in the project is set back from the street. The development has 53 patients in a nursing home section and 71 residents in a sheltered home section. This allows for the residents to "age in place" as they can be moved from one section to another. The building is in a "U" shape with activity areas, a patio, and the entrance located inside the "U". Safety features include an alarm response system in the kitchen and bathroom. The kitchen contains "System-Flex" manually adjustable cabinetry with built-in appliances. The complex is barrier-free and tenants move easily from wing to wing.

Lejerbo

This project was started by elderly persons reading about the benefits of commune living. A group was subsequently formed. They approached a local nonprofit housing association about getting assistance to develop their ideas into housing designs.

The basic concept of this home-shared setting allows each person to have a self-contained unit, while sharing common facilities. The project consists of 18 apartments located in a 560-unit building. Each apartment has two rooms, an entry, a kitchen, a toilet, and a shower. Ground floor units have been remodeled into two large, communal kitchens with equipment

for shared food preparation. A living room adjoins the kitchen, and there is direct access to a small garden with seating and tables. The commune is for people who can live independently. Local visiting nurses and short-term or intermittent home care services are provided by the municipality. Commune members care for one another during minor illnesses and help out with laundry, cleaning, and other routine jobs. Congeniality is the key element that keeps this type of commune together.

Hans Knudsens Plads, A Collective Home for the Handicapped

Twenty-five years ago, severely disabled persons could not access suitable housing. They often had to live with elderly persons in nursing homes, in rooms with three or four other persons. "Collective houses" provided a solution by creating greater privacy and a measure of autonomy, a real alternative to nursing home care. Collective housing programs follow the following model:

1. Disabled persons and non-disabled persons live in the same building, with all units accessible to wheelchairs.

2. A nursing station, a day centre, restaurant, on-call night care, social spaces, automatic doors, and at least two elevators are common amenities.

3. Units have more space than do usual apartments. The smallest units have two rooms.

4. Each unit has a telephone and an alarm system.

5. The architecture reflects local structures, either high-rise or low-rise buildings.

6. A day centre must be part of the complex.

The first 170 unit apartment complex, complete with business offices was built in 1959 on Hans Knudsen Plads, and it has contributed greatly to solving the housing problems of severely disabled elderly persons. Special features of the

building include a top floor special care unit for polio patients, and rental units for family members. Hans Knudsen Plads has a day centre which was specially designed for persons with functional disabilities. The facility contains many activity areas for special services and exercise activities. Staff from the day centre also go into the community to assist disabled persons in need of services. The day centre also functions as a gathering place for persons living in the project.

The Herning Project

The Herning apartment complex is also for disabled persons. The project is made up of three-room units each with a private outdoor space. Each unit has a kitchen, adjoining living and dining room, bedroom, and bath. All windows face toward a private garden.

The "H" shaped plan also includes a recreation room. There are two outside entrances, one to the private garden and the other to the street. Carports are also part of the project.

The Rehabilitation of Older Homes

The conversion of larger older houses into apartment units for elderly persons has also been most successful. The larger older homes were often too expensive for older persons to maintain. Many of these homes have been converted to elderly housing. These well-built structures were retrofitted with new kitchen cabinetry, bath fixtures and other features. In some cases, the main entry has been modified by the installation of an outside elevator to assist those who cannot use the stairs.

SUMMARY

Sweden and Denmark have similar housing policies that promote "dwellings for everybody" and social equality for all. The Swedish and Danish governments have taken the position that institutionalization should be avoided as long as possible as it is more costly and less beneficial to elderly

persons. The governments of both Sweden and Denmark support elderly persons financially with pensions, special housing, rent allowances, home improvement loans and ancillary services. The two governments have also had a considerable impact on housing through building codes and research into housing and product design.

The Swedish developments in the care of elderly and disabled persons are based on detailed and comprehensive research. Sweden has probably the most advanced research programs in the world in terms of functional analysis of buildings. Research institutions, such as the National Swedish Institute for Building Research, are involved in quantitative and qualitative investigations in all phases of housing to accommodate people of all ages. The Department of Handicap Research at the University of Goteborg conducts studies in the area of housing for disabled persons.

As is the case in Sweden, in Denmark housing is retrofitted not only to suit the needs of the elderly and disabled persons but for all people. The Danes are also particularly sensitive to designing new housing and to retrofitting existing housing in an architectural style which reflects the immediate neighborhood.