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FOREWORD

Everywhere older people sooner or later come to suffer disabilities that make independent living difficult. In the IIASA countries, the majority of these old people are unmarried women. When and if they give up living alone because of their disabilities, it is found in other studies that they tend to live with or receive help from their children, if they have any, particularly daughters.

The Netherlands shows a variant that appears to be the effect of extensive government construction of residences for the aged. These are specially designed for old people, including ramps instead of stairs, refrigerators and other equipment made easy to use. The availability of such residences permits a large portion of the elderly women who are disabled in one way or another to continue to live independently. Correspondingly, in the Netherlands, disability is a much weaker determinant for living with children than in some other countries.

Of those elderly women who do live with a child, the majority now live with unmarried sons. Since it is hard to visualize sons cooking and making beds for their aged mothers, we may suppose the mothers are continuing their traditional role – i.e., looking after their sons as well as themselves. This indicates that elderly women who might otherwise be in need of care are now able to continue to live independently thanks to special arrangements coming from the government, while elderly women able to give care continue to do so.

This paper is one in a series of country case studies dealing with the effects of kin patterns and health on the household composition of older women.

Nathan Keyfitz
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Varieties of Independent Living: Older Women in the Netherlands, 1982

Anne E.J. Wils and Douglas A. Wolf

INTRODUCTION

Among the many social trends of the postwar era, some of the most prominent are in the area of family and household patterns. In most of the industrialized countries of Europe and North America, as well as in some other parts of the world, traditional family and residence patterns have given way to increasingly diversified and nontraditional forms. One of the several indices of these changes is household size, which has been falling, on average, accompanied by a rising share of the population living alone.

Of particular interest to scholars and policy makers has been the increasing prevalence of solitary living arrangements (or "residential isolation"; Wall, 1984) among the elderly population. Changes in the household patterns of the elderly are documented in several recent survey articles, including Keilman (1988), Roussel (1983) and Wall (1988). Several studies have shown that the trends in household size are associated with both demographic patterns—rising male-female ratios among the elderly, and falling fertility—and economic forces—rising real income, and changes in the relative price of housing (see Michael et al., 1980; Smith et al., 1984; Wolf, 1989).

In this paper we examine the living arrangements of older unmarried women—that is, single, divorced, or widowed women—in the Netherlands. We analyze residence patterns at a point in time, using survey data, and seek to determine the relative importance of age, disability status, and family patterns as influences on the observed living arrangements. Our focus on unmarried women reflects the great prevalence of single women, especially widows, among the older population. In The Netherlands, as in many other countries at present, "...the problem of old age is still to a large degree a problem of unmarried single and widowed women" (Munnichs, 1977: 98).

Moreover, our research is part of a series of studies of older unmarried women's living arrangements, in which a series of country case studies with a common theme—the role of family and kin in shaping the household and informal-care arrangements of the elderly—has been produced. These include studies of the United States (Wolf and Soldo, 1988; Soldo, Wolf and Agree, 1986), Canada (Wolf et al., forthcoming), Italy (Wolf and Pinnelli, 1989), and Hungary (Wolf, 1988).

RESEARCH ON LIVING ARRANGEMENTS OF THE ELDERLY

Much recent research on living arrangements is founded, implicitly or explicitly, upon a conceptual framework emphasizing rational decision making in the face of discrete choices. The approach has been developed in a number of papers including Michael et al. (1980), Beresford and Rivlin (1966), Schwartz et al. (1984) and Burch and Matthews (1987). The set of possible choices is often characterized in very simple terms, such as the binary choice between "living alone" or "living with others." In some instances the "living with others" category is further subdivided, for example by introducing the distinction between living with one's children, living with other relatives, and so on.

Within this framework one constraint upon the choice of living arrangements is the fact that choices must be made from a limited set of available alternatives or opportunities. For example, an older person may simply have no living children, ruling out one of the possible categories of shared living arrangements. Additional constraints are imposed by the resources, both social and economic, of the decision-maker, as well as the existence of physical or other disabilities, or health conditions, which impair one's ability to conduct everyday life unaided.

Applying this framework to the household decisions of older women, the existence and number of living adult children can be associated with variations in the range of opportunities—the size of the set of alternatives—available to the older woman. Moreover we do not wish to suggest that decisions regarding whether or not an older woman and one of her adult children will live together are made solely by the mother. Each child, and possibly other kin as well, is a potential participant in the decision process underlying an older unmarried woman's observed living arrangement. Thus we can interpret competing demands made upon an adult child—demands such as those associated with marriage, own children, and employment, each of which may compete with the provision of shared living with an elderly parent—as factors which narrow the effective size of the set of alternatives available to the older woman.

The implications of this conceptual framework have been supported by several recent analyses of elderly living arrangements. Most studies have found that at higher levels of income older people are more likely to live alone, while with increasing degrees of physical disability they are less likely to live alone. Both findings are consistent with the idea that (on average) the elderly value the "privacy" and autonomy associated with living alone, and will consume it to the extent that they are able to do so. Furthermore, holding constant both income and disability level, most studies have found a positive relationship between the number of living kin and the tendency for the elderly to live with kin (especially one's children). This too is consistent with the rational-choice perspective: having more living children increases the range of choice options available, in turn making more probable the chances that coresidence with a child is the preferred alternative.

The approach to analyzing household composition, outlined above, has not so far been implemented with data from The Netherlands. While there have been several studies of household composition and trends in the Netherlands (for example, Kosejobono, 1983, 1989; Keilman, 1987) none (to our knowledge) have attempted to determine the correlates of individual living-arrangement decisions.

An additional and distinctive feature of the situation of the elderly in the Netherlands is the existence of social-welfare policies which have enhanced the housing choices available to the elderly. We review these policies in the next section.

DUTCH SOCIAL POLICY AND ELDERLY HOUSING

Here we provide a brief overview of historical developments in the Netherlands since World War II which have influenced the living situation of the elderly population. These developments fall under two general headings: income policies and housing policies.

After 1945, the Dutch government devised schemes to aid the elderly poor. This led to the Old Age Pension Act of 1957, which provides a minimum income to each elderly person. Thus those who had not been able to secure a private pension and had previously been financially dependent on children or others were now able to provide for their basic needs themselves. In 1965 this act was extended with the Public Assistance Act to provide extra financial assistance in cases of big expenditures, including special housing. Presently the old age pension is equal to the minimum wage level.

Housing and health-care policies have also been aimed at increasing the independence of the elderly. Shortly after 1945 the trend was to build what are referred to as "residential homes" for the elderly. Residential homes (also, "old people's homes") are intended for "...the accommodation and care of old people who, because of their physical or

mental condition or owing to social circumstances, are no longer in a position to maintain themselves independently in their own homes but who, in general, need only little incidental medical and/or nursing care" (Munnichs, 1977: 96). For people with needs for more extensive nursing care, there exists a system of nursing homes which in the early 1970s housed about 1.2 percent of the old people in the Netherlands.

For much of the postwar period the construction of residential homes was emphasized. In 1963, the Elderly People's Homes Act laid down minimum requirements for such units including more comfort and care than was previously the rule. During the sixties, many such homes were built and the elderly population in them increased considerably. Many elderly were accepted even if their care needs did not warrant it. By the 1970s around 10 percent of people 65 and older lived in residential homes, a figure higher than in any other country (van Zonneveld, 1980).

Because of rapidly growing costs the emphasis on residential homes was reversed in 1970-71. Gradually, the requirements for acceptance to an institution were increased and more closely regulated. By 1981 the most important reasons for acceptance were: social and/or psychological, 35.6 percent; medical, 30.7 percent; and age, 10.5 percent.

A shift was initiated in the seventies to building special, small housing units for the elderly accommodating their needs but allowing them to live independently. Such housing is termed "elderly housing" in this paper. Included in this category is the "specific elderly people's dwelling" (Vogelaar, 1975: 100) which incorporates several features adapted to diminished physical abilities of many elderly. Also included in this category are the typically expensive "service flats" which generally are found in blocks of 40 to 160 units, offering access to specialized but optional services such as housekeeping, meal preparation and to communal facilities as well. The Netherlands is one of the countries with the greatest availability of such homes.

At present, the tendency is to concentrate not on housing but on allowing the elderly to continue to live where they are and to provide so-called "open care"—household help, neighborhood nurses, social activities and so on. The role of the family members in providing such care is much discussed and questioned. In many studies it was found that the elderly maintain frequent contact with children living nearby. However, a distinction must be made between intermittent care and chronic care, if the older person is severely disabled. Some studies indicate that chronic care is mostly provided by outside help rather than by family members.

Largely on the basis of small and local-area studies, some have concluded that the extensive collective provision of housing for the elderly has encouraged both the elderly and their adult children to view the state, rather than the family, as the "normal" provid-

er of services and support for old people. For example, in a survey conducted in Rotterdam, only 10 percent of old people said they would prefer to live with their children in case of emergency; 60 percent said they would prefer to enter a residential home (Munnichs, 1977). Thus postwar developments in the Dutch welfare state may, or may not, have made the living-arrangement decisions of the elderly insensitive to family patterns. This is a question which is addressed in our analysis.

METHODS

The objective of our empirical analysis is to study the correlates of older women's decisions regarding living arrangements. We are particularly interested in two aspects of the living-arrangement decision, (1) whether or not the woman lives with one of her children (given that she has one or more living children), and (2) whether or not the woman lives in one of the various types of housing units specifically directed at the elderly, as discussed in the preceding section. These interests in turn lead us to a multi-categorical representation of the variable of interest, living arrangements.

Our multivariate analysis uses an approach virtually identical to that developed in Wolf (1984). Since the variable we wish to explain, living arrangements, has several categories, we use a multinomial-logit regression approach to relate several explanatory variables to the probabilities of being in each of the categories of living arrangements. Our data (described more fully below) consists of individual-level responses to a survey of older women. One of the categories—living with a child—can occur only if the respondent has one or more living children. Thus, we impose constraints upon the multinomial-logit estimation procedure which guarantee that childless women have a zero probability of living with a child (for details see Wolf, 1984).

A regression coefficient produced by the multinomial logit procedure has a rather complex interpretation: it represents the effect of a given variable on the logarithm of the ratio of two probabilities: the probability of being in one of the categories of living arrangements, divided by the probability of being in a baseline, or reference, category (in our case, the reference category is "living alone, in 'normal' housing"). We thus can speak of the effects of a given variable on the "relative probabilities" (the log-odds ratio) of two types of living arrangements. However, the implications of the estimated model become more obvious when we choose a set of values of all the explanatory variables, and use the estimated logistic regression coefficients to compute the predicted probability of being in each of the possible types of living arrangement. We can then systematically vary one or more of the explanatory variables, repeating the computation of predicted

probabilities each time, and thereby discover the effects of each explanatory variable upon living arrangements, holding all other factors constant.

Due to the limitations of available data, we are unable to perform a comprehensive test of the rational-choice framework outlined previously. In particular, we have little information on the competing demands upon the time and resources of older women's children, or on the availability of other kin; we know only of the existence and number of living children. Thus, we conduct a partial analysis, examining the effects of age, health, and the availability of children upon older women's living-arrangement decisions.

DATA

The data we use are extracted from the "Survey on the well-being of the elderly population in the Netherlands 1982" performed by the Dutch Central Bureau of Statistics. The survey is a follow-up of an earlier survey done in 1976 in cooperation with the Netherlands Institute for Social Work Research (NISWR). Both surveys aim to fill the gap in knowledge concerning the elderly in the Netherlands so that suitable government policies may be devised for them.

The sample in the survey contains two randomly-selected groups of elderly aged 55 or older. The first group, elderly not living in institutions, consists of 4631 elderly representing a little over 3 million people. These people live independently in regular housing, or in special housing for the elderly. The second group consists of 348 elderly living in institutions (i.e. in residential homes) and represents about 132,000 people. These two groups, with rather different lifestyles, were asked different sets of questions, although many overlapped. For our analysis, we pooled selected observations from the two samples, including unmarried women—that is, widowed, divorced, or never-married women—aged 65 and older.

The most important concept in our study is living arrangements, distinguished according to the presence or absence of others, and according to type of housing. Using codes for the relationship of respondent (and other household members) to the head of household, we distinguish three varieties of "presence of others": living alone; living with a child (and, possibly, others as well); and, living with others (but not a child).

Using codes for the type of housing units, we distinguish among three residential types: "regular housing", "housing for the elderly", and "residential homes" (referred to in the Survey as "institutions"). Omitted from our study (since they were not included in the Survey) are residents of hospitals or nursing homes, which constitute only a small percentage—around one or two percent—of the elderly population.

Combining these two dimensions, and giving hierarchical precedence to household members over housing type, we obtain a five-category living-arrangements variable as follows: (1) living alone in regular housing; (2) living with at least one child in any type of housing; (3) living with "others" (but not children) in any type of housing; (4) living in elderly housing; and (5) living in a residential home. In fact, those living in housing for the elderly and in institutions are in almost every case living alone.

We grouped all forms of housing not specifically geared to the elderly (such as houses, flats, and farms) into the category "regular housing." The category termed "housing for the elderly" includes the following types: (1) dwellings built specifically for the elderly—these are small, favorably located apartments with an adapted interior (no threshold steps, flush doormats, easy-opening doors, and so on, plus easily-accessible alarm signals in case of emergency); (2) service flats—these are unsubsidized apartments providing some permanent and some optional services (optional provision of meals, maintenance, housekeepers for common areas, and a morning call to check on the resident's health), but not personal care; and (3) special-care dwellings—these are located adjacent to residential homes, and are constructed similarly to "dwellings for the elderly" but the residents have access to the staff of the residential home, can make use of its common facilities, and have priority if they become sick.

Each of the latter three forms of housing have different gradations of accommodations and help for the elderly, but all are oriented towards allowing the elders to live independently insofar as possible. This distinguishes these forms of housing, as a group, from residential homes. The elderly living in such institutions are not fully responsible for their own care. The residential homes provide meals, washing, cleaning, social and recreational facilities, and guest rooms. There is also a special-care department if residents become ill, and intensive-care facilities.

Coding of the categories of presence or absence of others in the respondents' households was usually straightforward but in a number of cases had to be imputed by hand . In most cases it was clear from household-roster data whether or not the respondent lived with others. Also, it was usually straightforward to determine the existence of parent-child pairs using codes for the relationship of respondent to head of household (i.e. either the respondent was head of household, and some other household member was coded as a child, or the respondent was coded as a parent of the head of household).

In ten cases, older women were imputed to be living with a child; these were cases in which an older woman's relationship to the head of household was mother-in-law, and the household head's spouse was also present in the household. A more complex coding issue was presented by people coded as "living under the same roof" as the respondent, but not

part of the same household. Respondents in this situation were coded as living with others, and where suggested by available data, living with a child, since the close proximity of others in the same dwelling makes possible the exchange of care and support under virtually the same terms as for those coded as members of the same household.

Our analysis uses as explanatory variables age, number of living children, and marital status (a dummy variable indicating those never-married) and health. Income, unfortunately, could not be included since it was not asked of residents of institutions. The first three variables are straightforward, but the latter are somewhat more complex.

The survey included questions regarding difficulties in performing several "activities of daily living" (ADLs). In our analysis these activities are grouped into the following three categories: (1) personal-care activities (eating and drinking, dressing, washing); (2) indoor mobility (getting in and out of chairs, moving from room to room); and (3) outdoor mobility (leaving and entering home; moving around outside). For each activity, respondents indicated whether they could perform the activity "without difficulty", "with some difficulty", or "only with help." We created two variables for each of the three ADL categories listed above (abbreviated PC, IM and OM, respectively). For each category one variable is a count of activities performed "with some difficulty"—PC2, IM2, and OM2—and the other variable is a count of activities performed "only with help"—PC3, IM3 and OM3. Another item measuring difficulties in climbing stairs was also included in the survey, but was excluded from our analysis due to a high incidence of nonresponse to the item.

DESCRIPTIVE RESULTS

Table 1 shows the sample distribution (based on unweighted counts) according to the various categories of living arrangements, number of children, and disability status, in the full sample (women 55 and older). By far the largest group of older women is living alone in regular housing, while the categories "living with children," "living in elderly housing," and "living in institutions" are roughly equal in size, each containing 15-17 percent of the sample. Only six percent of the sample is living with "others." A rather large percentage of the sample is childless—about 25 percent—while those with children have fairly large families—30 percent have four or more living children.

Table 2 pertains to only the women 65 and older, the subsample used in the following multivariate analysis. In this table we show the distribution of the sample according to living arrangements at each level of ADL activities performed "with some difficulty" (panel A of the table) and at each level performed "only with help" (panel B of the table).

Table 1. Distribution of selected variables, unmarried women aged 55 and over, the Netherlands, 1982.

Status	Percent of Sample	
Living Arrangements		
Living Alone		
in regular housing		47.4
in elderly housing		15.4
in residential homes		16.4
Living with children		14.9
Living with others		6.0
Marital Status		
Widowed		81.5
Divorced		4.4
Never-married		14.1
Number of living children		
None		24.9
1		12.9
2		18.7
3		13.1
4+		30.3
Activities of Daily Living (ADL)		
Performed with some difficulty	none	at least one
Personal care	89.3	10.7
Indoor Mobility	84.3	15.7
Outdoor mobility	82.4	17.6
Performed only with help		
Personal care	91.6	8.4
Indoor mobility	97.8	2.2
Outdoor mobility	89.4	10.6

In both parts of the table there is no apparent relationship between severity of disability and the tendency to live either with children or with others. Instead, the most striking pattern is one of shifts from regular housing to housing targeted upon the elderly at increasing levels of disability. The greater the number of tasks performed "with some difficulty", the more likely is a woman to live in elderly housing; at the highest levels observed for this type of impairment, elderly housing is the modal category (occupied by 35 percent of such women). In contrast, women with increasing degrees of severe disability—measured by the number of tasks performed "only with help"—turn to residential homes.

Table 2. Living arrangements by severity of disability, unmarried women 65 and older, the Netherlands, 1982.

A. Living arrangements by number of ADLs performed "with some difficulty".

	Living arrangements				
	Living Alone			Living with Children	Living with Others
Number	Regular Housing	Elderly Housing	Residential Homes		
0 (920)*	.59	.15	.07	.15	.05
1 (143)	.55	.11	.25	.06	.02
2 (79)	.51	.27	.16	.06	.00
3 (41)	.53	.17	.19	.04	.06
4 (34)	.42	.07	.40	.08	.04
5 (26)	.23	.35	.19	.17	.05

B. Living arrangements by number of ADLs performed "only with help".

	Living arrangements				
	Living Alone			Living with Children	Living with Others
Number	Regular Housing	Elderly Housing	Residential Homes		
0 (1004)	.62	.15	.06	.13	.04
1 (95)	.27	.20	.43	.10	.00
2 (46)	.23	.17	.44	.11	.05
3 (24)	.14	.09	.70	.07	.00

*Sample size shown in parentheses

The gross patterns of association between ADL limitations and living arrangement is suggestive of effective targeting of housing resources: women capable of functioning, but only with some difficulty, appear to turn to the elderly-housing units which offer specially adapted designs and features intended to make their daily life easier, while those unable to function without assistance turn to the residential homes which offer more comprehensive supportive and care services. What is noteworthy is the apparent lack of use of children as an alternative provider of supportive environments, via shared living arrangements. This pattern suggests, at first glance, that The Netherland's well developed elderly-housing policies substitute for the pattern observed elsewhere, whereby children

provide residential environments for elderly parents with physical disabilities. Our multivariate analysis, which follows, permits a more thorough and rigorous test of this hypothesis.

MULTIVARIATE ANALYSIS

The logistic regression coefficients of our model of living arrangements are presented in Table 3. There are four columns of estimates, each of which pertains to the effects of explanatory variable on the relative probability of living in the indicated type of living arrangement, compared to the probability of living in the reference category which is living alone in regular housing.

Several interesting findings appear in these results. First, it is apparent that age is mainly significant in sorting women among the three categories of living alone: as age rises, the odds of living in a residential home (compared to living in regular housing) rise, and so do the odds of living in elderly housing, but the former rises more rapidly. The odds of living with children, or with others, are unaffected. On the other hand, the existence and number of children seems to affect only the odds of living with children or with others, and has no statistically significant effect on the odds of living in either of the housing types specifically directed at the elderly.

The results with respect to ADL limitation variables are fairly complex, and differ according to the type of activity (personal care, indoor mobility, or outdoor mobility) and the degree of impairment (tasks performed "with difficulty" or "only with help", in comparison to "without difficulty"). For all three types of activities, severe impairments significantly raise the odds of living in a residential home. The strongest such effect appears for activities related to indoor mobility. However, the presence of severe impairments in either personal-care or indoor-mobility activities also significantly raises the odds of living with children, relative to living alone in regular housing.

Also of interest are the results with respect to more moderate limitations on activities. Suffering from moderate levels of personal-care activity limitations significantly reduces the odds of entering a residential home, while corresponding difficulties with indoor-mobility activities significantly increase the odds of using elderly housing. The latter result is, again, indicative of effective targeting of resources, since the special design, service-access and contextual features of such housing is intended to make possible an independent life style among those moderately impaired.

Table 3. Estimated parameters of multinomial logit model of living arrangements.

Independent Variable	Type of living arrangement: Living with Children	Living with Others	Elderly Housing	Residential Home
Age	0.023 (1.32)*	-0.011 (0.37)	0.069 (4.43)***	0.171 (8.37)***
Personal-care activities:				
any "with difficulty" (0,1)[a]	-0.177 (0.36)	0.457 (0.59)	-0.604 (1.36)	0.414 (1.01)
2 or more "with difficulty" (0,1)	-0.970 (1.11)	1.468 (1.35)	-0.764 (1.18)	-1.196 (1.82)*
number "only with help" (0,...,3)	0.855 (1.85)*	0.929 (1.34)	-0.562 (1.03)	1.327 (3.54)***
Indoor-mobility activities:				
number "with difficulty" (0,1,2)	-0.022 (0.09)	-0.786 (1.86)*	0.382 (2.17)**	-0.006 (0.03)
any "only with help" (0,1)	3.305 (2.01)**	0.0[b]	0.0[b]	2.844 (1.86)*
Outdoor-mobility activities:				
number "with difficulty" (0,1,2)	-0.186 (0.71)	-0.569 (1.30)	0.056 (0.28)	0.358 (1.58)
number "only with help" (0,1,2)	0.498 (1.57)	0.658 (1.53)	0.781 (3.00)***	0.963 (3.57)***
Any children (0,1)	0.0[c]	-1.296 (2.19)**	0.018 (0.06)	0.810 (1.61)
Number of children (0,1,...)	0.210 (5.48)***	0.084 (0.77)	0.027 (0.58)	0.050 (0.86)
Never-married (0,1)	0.0[b]	0.793 (1.58)	-0.491 (1.32)	1.012 (1.87)*
Constant	-3.494	-1.487	-6.636	-16.287

Absolute values of t-statistics shown in parentheses

[a] Coding schemes of selected variables shown in parentheses.
[b] Coefficient constrained to be zero, since no cases occupy this cell (see text).
[c] Coefficient logically required to be zero (see text).
* .05 ≤ significance level < .10
** .01 ≤ significance level < .05
*** significance level < .01

A better picture of the effects of these variables on living arrangements is obtained when we use the results to compute predicted probabilities of each type of arrangement, fixing all the explanatory variables at specified values. The next section presents results of such an exercise.

IMPLICATIONS OF THE MULTIVARIATE RESULTS

Table 4 presents predicted probabilities of living alone for several combinations of values of the explanatory variables used in the previously described logit model. Attention is restricted to those variables with the most pronounced patterns of statistically significant effects—age, number of children, and several of the measures of disability. Although for each set of values of the explanatory variables the model produces five predicted probabilities—one for each of the categories of the dependent variable—we present (1) the predicted probability of living alone in "regular"[housing, (2) the sum of the probabilities of living alone in elderly housing and living alone in a residential home, and (3) the probability of living with a child. Thus we highlight patterns of living alone, distinguishing between those in ordinary private housing, and those in either of the two major categories of housing specifically directed at those elders with special needs—referred to in this section as "targeted" housing—and contrast patterns of living alone with patterns of living with a child.

Throughout Table 4, unless otherwise stated the values of the explanatory variables are fixed at age = 70, all disability variables = 0, and never-married = 0. Number of children is alternatively set at values 0, 1, 2 and 3, as indicated in the column headings.

Several patterns can be seen in the figures shown in Table 4. First, in most cases the probability of living in regular housing exceeds that of living in targeted housing. The main exception is for older women with extreme levels of personal-care difficulties (all three activities performed "only with help"). A second notable result is the fact that in most of the examples shown living alone in some sort of housing type is by far the majority outcome. This is seen by adding together the predicted probabilities from the left and middle thirds of the table, yielding a combined probability for living alone. Again, the exceptions are for older women most in need of assistance—those with the highest levels of personal-care difficulties or indoor-mobility difficulties. Interestingly, those in the most-impaired category with respect to outdoor-mobility activities are, for the most part, predicted to live alone, with roughly equal proportions to be found in regular and in targeted housing. The patterns discussed so far also can be seen to hold at each family size shown.

Table 4. Illustrative Predicted Probabilities of Selected Living Arrangements.

	Living alone in regular housing				Living alone in elderly housing or residential home				Living with a child		
Number of children:	0	1	2	3	0	1	2	3	1	2	3
Age = 65	.81	.75	.72	.70	.10	.10	.10	.10	.13	.15	.14
Age = 75	.73	.64	.62	.59	.19	.20	.20	.20	.14	.16	.19
Age = 85	.58	.46	.44	.42	.37	.41	.41	.40	.12	.14	.17
PC2 = 1	.65	.77	.75	.73	.05	.07	.07	.07	.05	.07	.08
PC3 = 1	.71	.58	.54	.50	.10	.12	.12	.12	.25	.29	.34
PC3 = 3	.29	.18	.16	.14	.21	.30	.28	.26	.43	.47	.51
IM1 = 1	.77	.68	.65	.62	.20	.19	.19	.19	.12	.15	.17
IM2 = 1	.67	.15	.12	.10	.26	.10	.09	.08	.75	.78	.81
OM2 = 1	.63	.55	.52	.49	.25	.25	.25	.24	.17	.20	.23
OM2 = 2	.44	.38	.35	.33	.39	.39	.38	.36	.19	.22	.26

Note: unless otherwise indicated age = 70, never-married = 0, all disability variables equal zero.

For only two of the situations considered does the probability of living with a child become quite large. This is the case for "PC3=3"—that is, for women unable to perform all three of the personal-care activities used in the index—and for "IM2=1"—women unable to perform one or both of the indoor-mobility tasks considered. Of all the disability variables used in our analysis, these are the only two which imply the need for regular in-home help; it is significant that only in such cases does it appear that coresidence with an adult child becomes the living arrangement for a majority of older women.

Another interesting finding relates to family size itself. Where the number of children does make a difference, the biggest difference is between women with no children and women with any children. Such differences are most pronounced in the rows of the table corresponding to those with severe personal-care disabilities, and those with severe indoor-mobility difficulties. Otherwise, however, there is little evidence from our model that the existence and number of living children has much of an influence upon the living arrangements of older women in the Netherlands.

Instead, the figures shown in Table 4 suggest that physical disabilities play the largest role in sorting out older women among the various living arrangements in our model.

Moderate levels of disabilities in the activities we could measure have only moderate effects on predicted living arrangements, but severe levels of disability have pronounced effects. Most striking in this regard are the effects of limitations on getting around indoors: women in this situation are most likely to live with a child, if one is available. The same is true, to a slightly lesser extent, for women unable to perform personal-care activities. Otherwise, however, older women for the most part are able to live alone, whether in regular or targeted housing.

In closing this discussion, it should be noted that all of the effects shown in Table 4 are partial effects: they illustrate the predicted effect of changing just one trait, holding all others fixed at the baseline values listed above. In practice, however, many of the variables we examine vary jointly. This is particularly true of the disability variables: an older woman impaired in one of the three dimensions is likely to be somewhat impaired in other dimensions as well. Similarly, if a woman is completely unable to perform some activity, then there may well be some other activity which she can perform only with difficulty.

CHARACTERISTICS OF CORESIDING CHILDREN

As noted earlier, with respect to an older woman's full kin network we know only the number of living children. However, for those children who do coreside with their older mother, we know more: their age, sex, and marital status. Even with such limited information some noteworthy findings appear. Table 5 shows the proportion of all coresiding children according to age group, sex and marital status. A majority of the coresiding children have never married: about 55 percent are never-married sons, and about 21 percent are never-married daughters. By far the largest group are never-married sons age 30-49, more than 70 percent.

Particularly striking is the fact that such a large percentage of the coresiding children are sons. In related work pertaining to the United States, Wolf and Soldo (1988) found that for older women with an unmarried son, that child had a much greater chance of coresiding than did a child with any other sex/marital status combination. However, rather few older women in the U.S. study had a living unmarried son, so that overall, coresidence with an adult daughter ended up the most likely outcome (consistent with both the stereotypical image and much of prior research). Our evidence is consistent with the following underlying explanation: as in the U.S., a never-married son, if available, is the most likely coresident child, other things being equal; however, the relative availability of never-married sons is higher in the Netherlands than in the U.S., leading to the

Table 5. Percentage distribution of coresiding children by age, sex and marital status.

	Coresiding Children				
	Sons		Daughters		Total
Age Group	Never Married	Ever Married	Never Married	Ever Married	
20-29	5.7	0.0	5.4	0.0	11.1
30-39	20.6	3.8	4.3	0.5	29.2
40-49	19.8	3.2	6.6	1.2	30.9
50-64	8.6	11.3	4.8	4.1	28.8
Total	54.7	18.4	21.2	5.8	100.0

predominance of such coresident children. Again, however, we must caution that we do not have the full range of data necessary to put such an interpretation to a rigorous test.

At any rate, it seems clear that never-married children, especially sons, are over-represented in our sample of coresidents. This impression is further borne out in Table 6, which compares the marital-status distribution of coresident children, by age and sex, to that of the Dutch population as a whole. It is clear from these figures that a much lower percentage of the coresiding children have ever married than in the population overall.

Table 6. Percent ever married, coresiding children and Dutch population. (Source: United Nations Demographic Yearbook, 1982; Table 40.)

	Coresiding Children Percent Ever Married		Dutch Population Percent Ever Married	
Age Group	Sons	Daughters	Male	Female
20-29	0.0	0.0	37.33	57.54
30-39	15.8	10.0	84.82	91.41
40-49	13.9	15.6	91.30	94.31
50-64	56.9	45.8	93.28	92.53

SUMMARY AND DISCUSSION

We have analyzed factors influencing the living arrangements of older unmarried women in the Netherlands, using cross-sectional data from a 1982 survey. The factors examined include age, disability status, and opportunities for shared living as represented by the existence and number of living children. The categories of living arrangements dis-

tinguished in our study include living with children, living with others, and three varieties of independent living: living alone, in "regular" housing—in other words, an ordinary private dwelling—in elderly housing, or in a residential home. Elderly housing is a category of dwellings especially constructed to meet the needs of the elderly, encouraging independent living; residential homes offer additional services, catering to older people unable to fully care for themselves. The latter two housing types reflect the efforts of the Dutch government to promote the housing of the elderly, which it has done at levels far beyond those of most western countries.

Our findings suggest that for most older Dutch women independent living is in fact the norm, and that the policy of dwellings for the elderly effectively supports independent living. For those of moderate levels of disability elderly housing is the preferred alternative to living with others. In case of severe disability the majority of elderly women in our sample turn to residential homes. The results suggest that by and large the availability of children has little effect upon the living arrangements of older women. Women unable to move about indoors, and to a lesser extent women unable to perform personal-care activities, are rather likely to live with a child. In these cases, however, it is the mere existence, and not the number of children, which seems to matter.

The majority of children living with their elderly mothers are unmarried sons. Based on the few relevant studies so far available for comparison, this situation is peculiar to the Netherlands. Simultaneously, the strong tendency for many elderly women with some disability to seek independent but specialized housing rather than living with children is unique.

This coincidence could be the result of a selection effect. It is possible to imagine that there are, in general, two groups of elderly mothers with a propensity to live with their children: 1) disabled or very old mothers in need of care and 2) able mothers helping their children in the household (e.g., unmarried sons).

In the Netherlands it would appear that the first group has been largely siphoned off to elderly housing and institutions, reflecting changes in housing opportunities. Meanwhile, the group of mothers caring for unmarried sons has remained more or less stable, but now makes up a very large proportion of the total group of elderly mothers living with children. In other countries with less extensive housing alternatives for elderly, the first group of elderly mothers in need of care would be more heavily represented in the category "living with children."

It has been found in other studies that the group of elderly mothers in need of care is more likely to live with a caring daughter than with a son. Thus, in countries where more elderly women in need of care live with children, more of them live with their daughters.

If these hypotheses are true, it is an interesting indication of heterogeneity in living arrangements which appear outwardly similar, and of the relative tenacity of some arrangements (mothers caring for sons) over others (daughters caring for mothers).

The results of the study of Dutch elderly women agree with those of other countries in that, with older age and increasing disability, elderly women gradually shift from independent living to a care situation. In contrast to other countries, the majority of elderly women in the Netherlands seeks this care in the form of a special dwelling or a residential home.

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