Housing and Society
Volume 21, Number 2, 1994

HOUSING, HEALTH, AND THE NEED FOR HELP IN OLDER HOUSEHOLDS: DIFFERENCES AMONG AGE COHORTS

Janet A. Krofta, Earl W. Morris, and Evelyn M. Franklin

Abstract

Household characteristics, health, and housing were analyzed as possible predictors of the need for help of households headed by persons 65 or older because the need for help with essential functions of living brings into question the ability of a household to remain independent. A sample of 3,764 households in the 1984 panel of the Survey of Income and Program Participation was analyzed using logistic regression and then divided into three age cohorts. Poor or fair health was significantly related to the need for help for all three cohorts, but the relationships with other variables differed by cohort. For those 65 to 74 years old, minority status was significantly related to needing help. Age and economic variables were related to the need for help of those 75 to 84, and living in poorly equipped housing was significant for those 85 and older. The model predicted need for help for the two older groups, but not for those households headed by persons 65 to 74 years old. The authors conclude that age alone is an inefficient criterion for allocating resources for help.

Introduction

This paper analyzes the effects of household characteristics, health status, and housing status on the need for help with mobility, household tasks and personal care in three age cohorts of households in which either the respondent or spouse is 65 to 74 years old, 75 to 84 years old or 85 years or older. As both the numbers and proportion of the population over 65 continue to increase, families, policy-makers, and those who deliver human services are concerned about the ability of those older households to continue as independent household units. Beyond strong personal preferences to remain in their own homes (Mercier, et al. 1987), moving to a more supportive environment usually is costly and often is beyond the financial ability of householders. Such a move is likely to trigger the need for substantial assistance from outside sources. Needing help with essential functions of living puts into question the ability of a household to remain an independent unit. Housing units and their surroundings can facilitate independent living, or can make continued independence extremely difficult or impossible (Struyk & Katsura, 1987).

Background

As persons move through the course of their lives, both their external circumstances and their internal aging processes produce change in housing needs. People may anticipate some changes and make adjustments in advance, or they may deny the need for change. Many have great attachment to the current home that precludes anticipatory adjustments. More than shelter, housing has great symbolic importance to the family household.

If any characteristic of its housing does not meet that household's needs or norms, there is a deficit that can cause stress (Morris & Winter, 1978). The household's response may be housing adjustments or adaptation of the household itself. One kind of adjustment used by older persons is accepting help from relatives, friends and other sources, if suitable help is available. The U.S. Health Care Financing Administrations Long Term Care Survey found that informal sources provided 84% of the care for disabled men not living in institutional set-

---

Janet A. Krofta is a Senior Research Analyst with HUD USER, Rockdale, Maryland. Evelyn M. Franklin is Associate Professor Emeritus and Earl W. Morris is a Professor, Department of Design, Housing and Apparel, College of Human Ecology, University of Minnesota.

tings and 79% of the care for noninstitutionalized disabled women (U. S. Department of Health and Human Services, 1991). Another kind of housing adjustment used by older persons is to move to housing designed to better compensate for limitations in ability and/or provide services to enable maintenance of overall independence.

The process of making adjustments uses energy and resources. Beyond a certain point of frailty or the availability of such resources, the household experiencing increasing frailty of a member may not be able to make adjustments. Continuing in the present unit occurs at the cost of detrimental effects on their own health and of the maintenance of the structure (Adaptive Environments Center, 1990).

Health Status of the Older Population

Most persons over 65 experience health that ranges from good to excellent. Further, they tend to view their health positively, especially those who are younger and those with higher incomes (U.S. Department of Health and Human Services, 1991). Aggregate data, however, may conceal the status of particular groups (Wilder Research Center, 1989; Victor, 1991). Health includes a wide variety of conditions, both acute and chronic, that may or may not affect the interactions of persons with their environments. Further, those conditions are dynamic rather than static, so that it is difficult to disentangle the interactions. Needs over time do not follow a linear path of ever-increasing dependency.

Housing of Older Households

Most older persons who live in independent households are homeowners. The U. S. Department of Health and Human Services(1991) reported that 75% are owners and 25% are renters. Home ownership rates decrease with age after age 65. Apgar (1988) reported that 78.1% of those households aged 65 to 74 were owners, as compared to 71% of those 75 years old or older. Using cohort analysis, Pitkin (1990) found that housing consumption patterns were affected mainly by economic constraints, life cycle situations, and inertia.

The quality of housing can be expressed in a variety of ways. Apgar (1988) reported that 12% of owners and 17% of renters lived in inadequate housing, with inadequacy concentrated in areas of high population of low income households, especially inner cities and outlying rural areas. General adequacy measures, however, may not be useful in assessing the supportive qualities of a particular housing unit for the needs of a specific household (Soldo, 1986). Both owned and rented housing of older households are more likely to be older structures than those of younger households (U. S. Department of Health and Human Services, 1991).

Needs for Help

Each older person is the product of his or her individual resources, personality, and life experiences. Each year adds more to that unique individual product. Some persons enjoy full independence into their ninth decade. For others, acute illness, the cumulative effects of chronic illness, or physical frailty may mean that help is needed to maintain independent living outside of institutional settings. The U.S. Department of Health and Human Services (1991) reported that 12.9% of the 27.9 million people age 65 years and older had difficulty with one or more of the activities of daily living or with walking.

Economic Status

In 1989, median income for families whose heads were 65 or older was $20,277, compared to $36,058 for those aged 25 to 64. Median income for individuals 65 or older was $9,422, compared to $22,806 for individuals 25 to 64. The poverty rate for all persons 65 or older was 11.4% (Table 1). Overall median income data mask the economic status of particular groups, however. The median income of families with heads 65 to 74 was $24,868, compared to $19,520 for those 75 to 84 and $17,600 for those 85 or older. Median income for individuals 65 to 74 was $10,821, compared to $8,684 for those 75 to 84 and $7,947 for those 85 and older. Older women have lower incomes and higher poverty rates than do older men, and minority elderly persons were more likely to have incomes below the poverty line (U.S. Department of Health and Human Services, 1991).

Table 1. Percent of persons in poverty for selected groups age 65 and older.

Selected Groups	Percentage
All persons	11.4%
Women	14.0%
Men	7.8%
African-Americans	30.8%
Hispanic	20.6%

Source: U.S. Department of Health and Human Services, Aging America, Tends and Projections, 1991 Edition. DHHS Publication No. (FCoA) 91-28801.

Methods

Sample

Data for this study were drawn from the Survey of Income and Program Participation (SIPP). Household data from waves 3 and 4 of the 1984 panel were assembled on tape at the household level. The sample includes adults in 19,878 households, of which 3,763 (3,764 weighted) are households in which either the respondent or spouse was 65 years old or older. The SIPP sample is drawn by the U.S. Bureau of the Census to be representative of the non-institutionalized, adult population of the United States. Data were gathered from each household once every four months for 32 months. Waves 3 and 4 were selected because they contain additional data about housing and health of the respondents and their

Table 2. Exogenous variables in the study.

Variable	Measurement	Sipp variable(s)
Age	Age as of wave 3 interview. Only households where respondent or spouse was 65 or older were included	AGE43
Income	Total household dollar income from all sources. Calculated by adding total income in month 4 or waves 3 and 4 and dividing by 2	H4TTINC3 H4TTINC4
Net Worth	Value of all household tangible and intangible economic assets. Any one asset was capped at $100,000. Net worth can be negative	HHTNW
Coupled-Headed	Households in which the reference person was recorded as "married, spouse present"	MS43
Single Female-Headed	Reference person was female and not married with spouse present	MS43 SEX3
Single Male-Headed	Reference person was male and not married with spouse present.	MS43 SEX3
Minority	Reference person or spouse was 1) black, Asian, native American or 2) Hispanic	RACE3 ETHNICITY
Education	Highest grade of school attended by reference person, grouped into elementary, high school, college or above	HIGRADE3
Assistance	Someone in household received benefits from a means tested assistance program	H4MEANS3

households. Records from the two waves were matched longitudinally. Only households who lived at the same residence in both waves were included in the sub-sample analyzed here. The exogenous variables in this study and the SIPP variables upon which they are based, are shown in Table 2, and the dependent variables in Table 3. Their frequencies are shown in Table 4.

Table 3. Dependent variables in the study.

Variable	Measurement	Sipp variable(s)
Poor or fair health	Coded "1" if anyone in household self-reported health as poor or fair, the lowest two categories on a five-category scale	TM8334
Use aids to get around	Coded "1" if anyone in household needed to use aides to getting around like crutches, cane, or wheelchair	TM8348
Ownership	Household's tenure in housing unit. Coded "1" if owned	H4TENUR4
Single Family Structure	Household resided in structure with only one housing unit. Coded "1" if only one housing unit	H4UNITS4
Poorly Equipped	Coded "1" if housing unit had three or fewer of the following: air conditioning, range, oven, refrigerator, freezer, clothes washer, clothes dryer, television	TM8690,TM8696, TM8698,TM8700, TM8704,TM8710, TM8712
Housing Poverty	When monthly expenses were subtracted from monthly income, and the remainder was less than two-thirds of the poverty level for that household, the household was coded "1"	H4TTINC3, H4TTINC4, H4POV$3, TM8544, TM8648, TM8652, TM8656, TM8606, TM8608, TM8614, TM8628
Housing Assistance	Coded "1" if household used any of the following: residence in a public housing project; local, state, or federal rent subsidies; energy assistance; or local, state, or federal mortgage assistance	H4PUBH3, H4LORNT3, TM8588 H4ENRGY3
Need help to get around	Coded "1" if someone in household needed help to get around inside the house or to get out of bed	TM8374
Need help for meals	Coded "1" if someone in household needed help with light housework or meal preparation	TM8400
Need help for care	Coded "1" if someone in household needed help with personal care	TM8424
Need help	Coded "1" if a given household was recorded in any of the above categories	TM8374, TM8400, TM8424

Table 4. Frequencies of variables in the model and related variables.

Variable	Number	Percent
Age		
65-74	2,322	61.7
75-84	1,192	31.7
85+	250	6.6
Net worth		
$0 or less	245	6.5
$1 to 25,000	804	21.4
$25,001 to 100,000	1,580	42.0
$100,000 or more	1,135	30.2
Income (per month)		
$400 or less	421	11.2
$401 to 700	807	21.4
$701 to 1,400	1,247	33.1
$1,401 or more	1,289	34.2
Couple	1,737	46.1
Single female	1,615	42.9
Single male	412	10.9
Minority	136	3.6
Education		
Elementary	1,332	35.4
High school	1,657	44.3
College	764	20.3
Assistance	799	21.2
Poor or fair health	1,260	36.1
Use aids to get around	499	13.2
Owner	2,822	75.0
Single family structure	2,828	75.2
Poorly equipped	101	2.7
Housing poverty	447	11.9
Housing assistance	449	11.9
Need help to get around	444	11.7
Need help for meals	672	17.8
Need help for care	254	6.8
Need help (any of above)	882	20.8
Sex		
Male	2,025	53.8
Female	1,739	46.2
Persons in household		
One	1,662	44.2
Two	1,704	45.3
Three	283	7.5
Four	63	1.7
Five or more	51	1.4
Not a couple, but more than one in household	388	10.3
In housing poverty, but not receiving housing assistance	299	7.9

Table 4 continued.

Year owners first built or purchased home		
1901-1959	1,216	35.0
1960-1979	1,193	32.0
1980-1984	151	4.0
Unit is mobile home	213	5.7
Unit is public housing	171	4.5
Unit is subsidized	89	2.4
Number of stories		
One	2,803	55.3
Two	1,234	32.8
Three	237	6.4
Four to 60	210	5.6

Analysis

Nine exogenous variables, age, income, net worth, being a couple-headed household, being a single-female-headed household, being a single-male-headed household, minority status of either spouse, education and receiving some form of means-tested assistance, were selected for study. Two variables measuring health and five variables measuring housing characteristics were treated as intervening variables and as dependent variables. The four dependent variables were kinds of help that someone in the house needed. All of the dependent variables are dichotomies.

SIPP coded all persons 85 years or older as age 85. Income and net worth were capped at $100,000 from any one source; if the household received or owned more than $100,000 in a specific category, it was coded at just $100,000. Those variables, therefore, may be under-estimated for households at the high end of the economic scale.

Two variables were tested as dependent to the exogenous variables and independent to the housing and need-for-help variables. Poor or fair health was obtained by asking respondents to report health on a five-point scale ranging from poor, fair, good, very good, and excellent for each member of the household. Those households in which at least one person reported poor or fair health were coded 1, all others were coded 0. Similarly, if at least one person in the household reported needing to use aids such as a cane, wheelchair, walker, or crutches, they were included in the second health variable, use of aids to get around.

Five housing variables were tested. "Owner" referred to tenure in the unit by the household. Structure type was studied in the variable named "single family". Housing quality was indicated by the variable labeled "poorly equipped," which was constructed from a scale of household equipment asked in SIPP. This is one of the three aspects of housing quality analyzed by Morris, Woods and Jacobson (1972). If a household had three or fewer of the following amenities: air conditioning, range, oven, refrigerator, freezer, clothes washer, clothes dryer, or television, that household was counted as poorly equipped. Housing poverty was measured by subtracting monthly housing costs from monthly household income. If the remainder was less than two-thirds of the poverty level for that household, the household was counted as in housing poverty. Housing assistance includes residence in a public housing project; local, state or federal rent subsidies; receipt of energy assistance; or use of local or state government programs to lower the cost of mortgages.

Three dependent variables to measure the need for help came from direct questions asking if anyone in the household was unable to carry out specific functions without help. They were: (1) needing help to get out of bed or around inside the house, (2) needing help with housework or meals, and (3) needing help with personal care. A fourth variable, termed "need help," was constructed that included anyone in the household needing help with any of the above three functions. If help was needed in any of the three areas the variable was coded 1. Otherwise, it was coded 0.

Pearson correlation coefficients were calculated to test for unexpected multicollinearity effects among the variables. Only in the expected areas of household type and between income and net worth were the values large enough to be of concern. Further analysis by logistic regression tested the significance of relationships between household characteristics, health status, housing status, and the needs for help. The size of the SIPP sample allowed separate analysis by three age cohorts; 65 to 74, 75 to 84, and 85 and older. This age group analysis was done with the first and the final equations.

The models developed and shown in Figures 1 through 6 illustrate relationships, but are not intended as path models. They were developed by first running logistic regression equations in forward, stepwise inclusion, using the kinds of need for help with nine exogenous variables, two health variables and five housing variables. From these, thirteen independent variables were selected for a second run of the regression equation. A more parsimonious equation with six independent variables using the need for help as the one dependent variable was selected. Several curvilinear and interactive relationships were tested, but found not to improve the model. This model with six independent variables was then divided into three age groups for the analysis described in this paper.

Statistical significance was measured and is reported at the .01, .001 and .0001 levels. The large sample size contributed to the significance of the findings. The final model was developed from the whole sample. The three age groups analyzed here decrease in number from 2322 for the 65 through 74 group, to 1192 for those 75 through 84, to 250 for those 85 and older. The differing sub-sample numbers in the age groups may account for differing percents of cases correctly predicted.

Results

First Equations

Because the initial equations showed little difference in results among the four kinds of needs for help, only the combined variable, "need help," was used as the final, dependent variable in the logistic regression analysis by the three age groups. Figure 1 shows that age, being a couple-headed household, being a minority household, receipt of means-tested assistance, poor or fair health, and the use of aids to get around are significantly, and positively, related to the need for help among those households in which the reference person was 65 to 74 years old. Among those 75 to 84 years old (Figure 2), however, minority status is not significantly related to the need for help, but net worth is significantly negatively related to that need (Figure 2). None of the housing variables is significantly related to the need for help for the households in the 65 to 74 or 75 to 84 age cohorts. Those 85 and older (Figure 3) show a very different pattern of significant relationships. Because age was capped at 85, age could not be included as a variable for this cohort. None of the other exogenous variables is significantly related to the need for help. The two health variables remain strongly and positively related to the need for help. For this oldest group, however, living in a poorly equipped house is significantly and positively related to the need for help.

Final Equation

Further testing then led to the development of a smaller equation with the single dependent variable, need for help, and six independent variables: age, income, net worth, minority status, poor or fair health, and poorly equipped.

Need help = f (Age, Income, Net worth, Minority, Poor or fair health, Poorly equipped)

The analysis of those households 65 to 74 years old presented in Table 5 and diagrammed in Figure 4. It shows that the chi-square for the model is 310.2 with six degrees of freedom, which is significant; and indicates that the model with this set of variables fits the data better than a model with only the intercept. For this group, however, the model does not predict any households as needing help, so does not fit the data well. Overall, the model correctly predicts 84.87% of the cases. Only the coefficients for minority status and poor or fair health are shown to be significant, and positively related to the need for help.

Figure 1. Logistic regression coefficients for the relationship of need for help with housing, health, and exogenous variables in households. Reference persons aged 65 through 74.

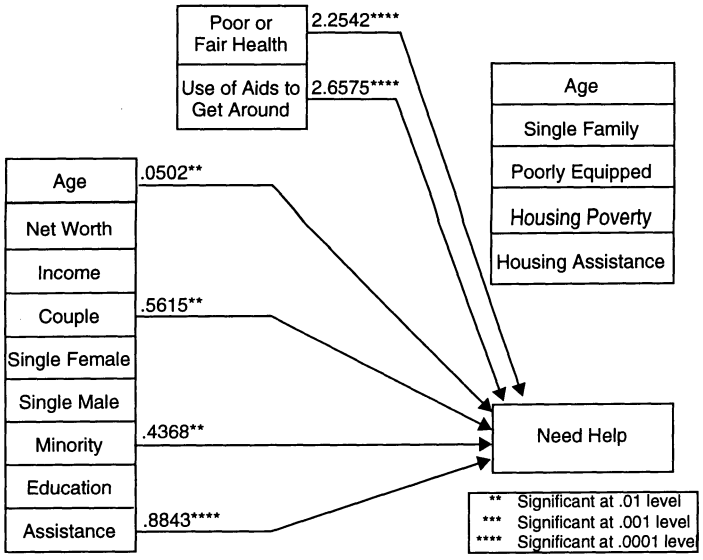


Figure 2. Logistic regression coefficients for the relationship of need for help with housing, health, and exogenous variables in households. Reference persons aged 75 through 84.

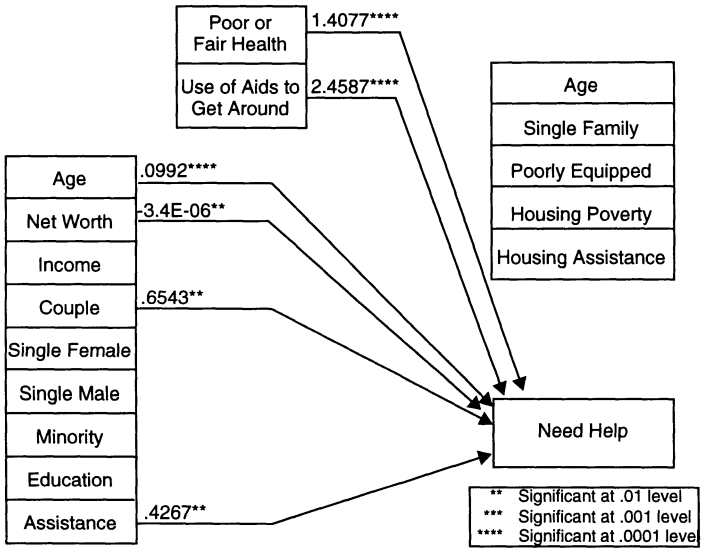


Figure 3. Logistic regression coefficients for the relationship of need for help with housing, health, and exogenous variables in households. Reference persons aged 85 and older.

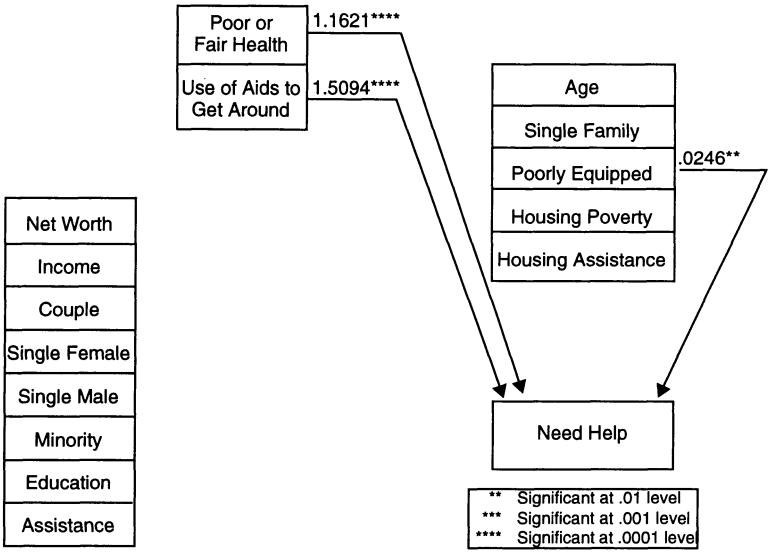


Table 5. Logistic regression: Need for help with age, income, net worth, minority, poor or fair health, poorly equipped. Reference persons aged 65 through 74 years.

Total number of cases:		2322	(unweighted)
	Chi-square	df	significance
-2 log likelihood	1653.949	2305	1.000
Model chi-square	310.248	6	.0000
Goodness of fit	2272.359	2305	.0000

		Predicted .00 0	Predicted 1.00 1	Percent Correct
Observed				
.00	0	1963	0	100.00%
1.00	1	350	0	.00%
			Overall	84.87%

Variables in the equation

Variable	B	S.E.	Wald	df	Sig	R	Exp(B)
Age	.0447	.0187	5.6868	1	.0171	.0433	1.0457
Income	9.4E-05	6.27E-05	2.2673	1	.1321	.0117	1.0001
Net worth	-6.1E-07	6.22E-07	.9732	1	.3239	.0000	1.0000
Minority	.4373	.1577	7.6915	1	.0055	.0538	1.5485
PFHealth	2.5415	.1978	165.0168	1	.0000	.2881	12.6989
PoorlyEq	-.1491	.4679	.1015	1	.7500	.0000	.8615
Constant	-6.8047	1.3270	26.2943	1	.0000		

Figure 4. Logistic regression coefficients for the relationship of need for help with age, income, net worth, minority, poor or fair health, poorly equipped households. Reference persons aged 65 through 74.

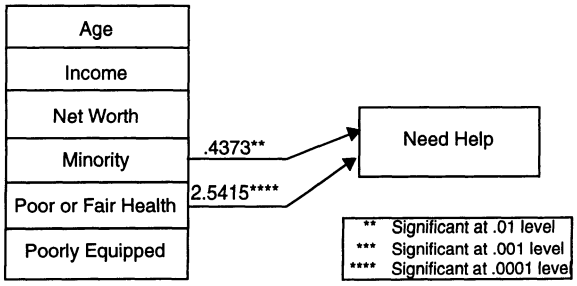


Table 6 and Figure 5 present the analysis for the households in which the reference person is 75 to 84 years old. It shows that the chi-square for the model is 161.5 with six degrees of freedom as significant, again indicating that the model with this set of variables fits the data better than a model with only the intercept. The likelihood that help is not needed is considerably better predicted than is the likelihood that help will be needed, which means that the model is not a very strong one. The model correctly predicts 75. 14% of the cases. All but one of the coefficients for the individual variables are positive and all except minority status and living in a poorly equipped house are shown to be significant at the .01 level. The effect of net worth is negative, which may be a result of collinearity with income rather than being a substantively meaningful relationship.

Table 6. Logistic regression: Need for help with age, income, net worth, minority, poor or fair health, poorly equipped. Reference persons aged 75 through 84.

Total number of cases:		1192 (unweighted)	
	Chi-square	df	significance
-2 log likelihood	1211.707	1204	.4355
Model chi-square	161.523	6	.0000
Goodness of fit	1213.293	1204	.4229

		Predicted .00 0	Predicted 1.00 1	Percent Correct
Observed				
.00	0	880	24	97.35%
1.00	1	277	30	9.77%
			Overall	75.14%

Variables in the equation

Variable	B	S.E.	Wald	df	Sig	R	Exp(B)
Age	.0870	.0252	11.9294	1	.0006	.0850	1.0909
Income	.0002	8.55E-05	6.8210	1	.0090	.0592	1.0002
Net worth	-3.5E-06	1.17E-06	9.0933	1	.0026	-.0719	1.0000
Minority	.4214	.2056	4.2006	1	.0404	.0400	1.5241
PFHealth	1.6708	.1711	95.3231	1	.0000	.2607	5.3165
PoorlyEq	.6856	.3485	3.8697	1	.0492	.0369	1.9850
Constant	-9.1627	2.0075	20.8334	1	.0000		

Figure 5. Logistic regression coefficients for the relationship of need for help with age, income, net worth, minority, poor or fair health, poorly equipped household. Reference persons aged 75 through 84.

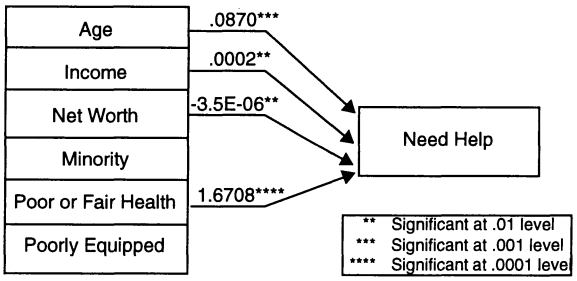


Table 7. Logistic regression: Need for help with age, income, net worth, minority, poor or fair health, poorly equipped. Reference persons aged 85 or older.

Total number of cases:					250 (unweighted)	
	Chi-square				df	significance
-2 log likelihood	290.272				2234	.0071
Model chi-square	41.695				5	.0000
Goodness of fit	251.689				234	.2027

		Predicted		
		.00	1.00	
Observed		0	1	Percent Correct
.00	0	68	58	53.97%
1.00	1	25	89	78.07%
			Overall	64.42%

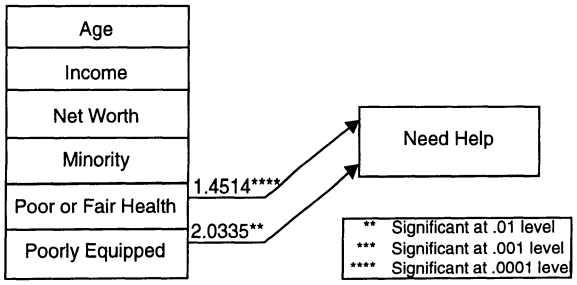
Variables in the equation

Variable	B	S.E.	Wald	df	Sig	R	Exp(B)
Income	3.7E-05	.0002	.0405	1	.8405	.0000	1.0000
Net worth	-1.9E-06	2.30E-06	.6923	1	.4054	.0000	1.0000
Minority	.9393	.5090	3.4050	1	.0650	.0651	2.5581
PFHealth	1.4514	.3012	23.2241	1	.0000	.2529	4.2692
PoorlyEq	2.0335	.7661	7.0452	1	.0079	.1233	7.6406
Constant	-1.1144	.3053	13.3246	1	.0003		

Table 7 and Figure 6 present the analysis for the cohort in which the reference person is 85 or older. The chi-square for the model is 41.7 with six degrees of freedom and is significant. Only 65.42% of the cases were correctly predicted by the model. Here, age was not included in the analysis because all are recorded in the SIPP data as age 85. Only the coefficients for poor or fair health and living in a poorly equipped house are significant.

Because the number of cases in the two younger age cohorts is quite large, even a very weak relationship can appear to be significant. We do not interpret these levels of significance to indicate that the model is strong.

Figure 6. Logistic regression coefficients for the relationship of need for help with age, income, net worth, minority, poor or fair health, poorly equipped households with reference person aged 85 and older.



Conclusions

This analysis identified exogenous, housing, and health variables significantly related to the need for help by persons in households in which the respondent or spouse were 65 years old or older. After original analysis with a series of equations using the whole group, the sample was divided into three age cohorts. Distinctly different patterns emerged for households in the three different age cohorts, 65 to 74, 75 to 84, and 85 and older. Poor or fair health is significantly related to needing help for all three age groups, but the significance of other variables depends upon the age group.

The condition of poor or fair health is not caused by housing, except where there are safety or environmental quality concerns. Those who strongly value independent living might be well advised to follow health strategies aimed at prevention of debilitating conditions. Nevertheless, cumulative effects of chronic and acute illnesses can be expected to increase likelihood of poor health that leads to the need for help.

When receipt of means-tested assistance was included as an exogenous variable, it was significantly and positively related to the need for help by someone in the household for the 65 to 74 and 75 to 84 cohorts. This suggested that those cash and non-cash assistance programs are indeed reaching persons with special needs.

Couple-headed household type was significantly related to the need for help in both the 65 to 74 and 75 to 84 cohorts. This was a reflection of the fact that couple-headed households always included at least two persons who could be at risk of needing help, whereas most of the other households had just one person over the age of 65. Fewer of the 85 and older households were couple-headed households, so that variable was not significant for the oldest cohort.

In the final equation with six independent variables, the model did not work well to predict the need for help for households in which the respondent or spouse was 65 to 74 years old. The only variable beyond poor or fair health that is significantly related to needing help for those households headed by persons 65 to 74 years old is minority status. The consequences of a lifetime of limited access to financial and health resources can mean that minority households need to make the adjustment of seeking help at an earlier age than non-minority households. This may be a relatively unexplored social cost of discrimination. That minority status drops out for the older two cohorts may reflect shorter life spans, or may reflect cultural patterns more accepting of moving older persons into extended family households. Such a move would remove the independent household status necessary for inclusion in this study. (Four percent of the households in the 65 to 74 year-old group, 3% of those in the 75 to 84 group and less than one-half of 1% of those 85 or older have a minority respondent or spouse.) This finding also suggests caution in raising the age for eligibility of supportive programs because it could compound the effects of discrimination for minority

households. It does suggest that age is an inefficient eligibility criterion for programs and services intended to address special needs.

Economic and age variables emerged as significantly related to the need for help among the 75 to 84 cohort, among whom the need for help was correctly predicted in 10% of the cases. Income was positively related to the need for help, an outcome that may reflect greater expectations of those persons who have more income to spend, and/or may reflect greater ability to pay for help. Net worth, in contrast, is negatively related to needing help; those with fewer economic assets are more likely to need help. Since their home usually is the major economic asset of older households (U. S. Department of Health and Human Services, 1991), this outcome may reflect greater independence of home owners and less access to helping services by those who live in private housing. The negative relationship of net worth to the need for help may also be the result of spending down assets in order to secure help. The years 75 to 84 may be the decade of life in which problems requiring outside help are most likely to become apparent. Planners of housing and human service programs may need to focus on the numbers of persons in this age range in order to project resource needs.

These data recorded all persons 85 or older as age 85, so the equation omitted age for this oldest cohort. Among this cohort, the model correctly predicted 65% of cases. Among this oldest group, living in poorly equipped housing unit was significantly related to the need for help. Many have lived in their current home for a long time. They may not have had the resources or the ability to make changes that could enhance their independence. SIPP data do not provide direct information to evaluate the supportive qualities of the dwelling. Among this oldest group, income and net worth are not significantly related to the need for help.

Implications

These data show that many persons live in independent households for many years after age 65. Age alone is not a proxy for needing help, and grouping together all persons over 65 is not justified by these findings. Even the oldest persons can remain independent if appropriate help is available. Appropriate help encompasses realistic opportunities to make small or large adjustments, including moves to more supportive housing units. Data with more details on the physical characteristics of the housing units, such as accessibility features, would be better able to relate housing to the need for help, but this was not a part of the SIPP data set.

Effects of health care, economic conditions, housing production, and a wide variety of social policy decisions may have their full impacts on older persons decades after those decisions are made. The stock of housing suitable for elderly households, or programs to adjust housing units to the householder's needs, may not be growing as fast as the number of those households. Both education about adjustment options and policies that facilitate adjustments may be needed. A shift in responsibility for health care costs may have the effect of changing the dollars available to households for housing.

There is wide variation among households headed by persons over 65 years old in both their need for help and their ability to live independently. Further study of specific post-retirement age groups, especially the less-studied group of persons over 85 years old, can provide information needed to develop resource-efficient housing polices and program eligibility criteria.

Credits: The research reported here was funded by the U. S. Department of Agriculture for Project No. NC-I 99 through the experiment stations at Cornell University, The University of Idaho, Iowa State University, The University of Minnesota, The University of Nebraska and Purdue University. In addition Miami University, Illinois State University and Western Michigan University are supporting the research.

References

Adaptive Environments Center, and Gerontology Institute. (1990). *Designing a strategy for elderly home adaptation advocacy final report.* Boston: University of Massachusetts, College of Public and Community Service.

Apgar, W. C., & Brown, H. J. (Eds.). (1988). T*he state of the nation's housing: 1988.* Cambridge, MA: Harvard University, Joint Center for Housing Studies.

Mercier, J. M., Morris, E. W., Paulson, L., Jakubczak, M., Peterson, C., Rubio, M. L., & Whiteford, P. (1987). *The housing needs and preferences of elderly Iowans.* Family Environment Department, Iowa State University.

Morris, E. W., & Winter, M. (1978). *Housing, family and society.* New York: John Wiley and Sons, Inc.

Morris, E. W., Woods, M. E., & Jacobson, A.L. (1972). Measuring the quality of housing. *Journal of Land Economics*, 48, 383-387.

NC 199. (1989). *Rural households at risk of serious housing problems in the North Central Region.* North central states regional research project.

Pitkin, J. R. (1990). Housing consumption of the elderly: A cohort economic model. In D. Myers (Ed.), *Housing demography* (pp. 174-199). Madison: The University of Wisconsin Press.

Soldo, B. J. (1986). Household types, housing needs and disability. In R. J. Newcomer, M. P. Lawton and T.O. Byerts (Eds.), *Housing an aging society: Issues, alternatives, and policy* (pp. 10-21). New York: Van Nostrand Reinhold Company.

Struyk, R.J., and Katsura, H. M. (1987). Aging at home: How the elderly adjust their housing without moving. *Journal of Housing for the Elderly,* 4(2), 1-174.

U. S. Department of Health and Human Services. (1991). *Aging America, trends and projections, 1991 edition.* DHHS Publication No. (FCoA) 91-28001. Washington, D.C.

Victor, C. R. (1991). Continuity or change: Inequalities in health in later life. *Aging and Society,* 11, 23-9.

Wilder Research Center. (1989). *The Minnesota senior study, WRC Report.* Report of study by L. R. Fischer, D. P. Mueller, P. W. Cooper & R. A. Chase. 1(1). St. Paul, MN: Amherst H. Wilder Foundation.