

Using data collected from the first wave of a longitudinal data set collected in the late fall and winter of 1990-1991, the National Survey of Self-Care and Aging (NSSCA), we examined the extent and type of assistance older people provided to others. Age, gender, and perceived health status were the most consistent predictors of the four types of assistance: personal care, child care, volunteer work, and listening/offering advice and support. Help with instrumental activities of daily living either alone or in combination with other activities of daily living was the most common type of personal care provided.

Key Words: Elderly productive activity, National survey, Volunteering, Helping others, Informal care

Older Adults as a Community Resource: Results From the National Survey of Self-Care and Aging¹

Jean E. Kincade, PhD,² Donna J. Rabiner, PhD,³
Shulamit L. Bernard, PhD,³ Alison Woomert, PhD,⁴
Thomas R. Konrad, PhD,⁵ Gordon H. DeFries, PhD,⁶ Marcia G. Ory, PhD⁷

The American population is growing older, with the most rapid growth occurring in the age group 85 years and older (U.S. Bureau of the Census, 1992). Often, along with the notion of an aging population, the assumption is that those 65 years and older are "dependent" and must be taken care of by those in younger age cohorts. This assumption is supported by the calculation of an "elderly dependency ratio," defined as the number of persons aged 65 and over divided by the number of persons of working age (i.e., 18 to 64 years). The fact that this elderly depen-

dency ratio has increased from .07 in 1900 to .18 in 1975, and is projected to be .29 in 2030, is used to indicate that elderly people are becoming an increasing social and economic burden on society (Cnaan & Cwikel, 1992; Wisensale, 1991). A more positive perspective, however, is that many older people are active, are employed well into their eighth decade of life, and can and do make substantial contributions to society. One of the ways they are able to make such contributions is by providing help to others.

Why do older adults help others? One explanation is an egoistic one that suggests that helping is motivated by anticipation of rewards for helping, such as social approval, and censure for not helping. For example, a daughter may give up a part-time job to care for her mother to avoid criticism from family and friends or to see herself as being a good person (Schulz, 1990). A different perspective is provided by the theory that helping is based on altruistic motivation. The goal is helping the other person and not the self, although benefits to oneself may be a consequence of helping. Thus, the caregiver is able to empathize with the care recipient and evoke a motivation aimed at reducing the other's needs (Schulz, 1990). Sociological explanations for why people help others often include social norms such as reciprocity, equity, or social responsibility. Thus, helping others is a way of paying back what others have given to us or helping others is a duty that should not be shirked (Schulz, 1990). Proponents of activity theory suggest that maintenance of activity in old age compensates for role-loss and promotes morale and thus should be encouraged. Therefore, providing assistance not only benefits the recipients, but also pro-

¹This research was supported by a Cooperative Agreement from the National Institute on Aging and the Division of Nursing, Bureau of Health Professions (AG-07929-02). We gratefully acknowledge the professional assistance of Market Facts, Inc. of Arlington, Virginia, for their management of the national data collection aspect of the first wave in-person interviews. Special thanks also go to our programmer, Hazel L. Hadley and to Thomas Arcury, PhD, for his helpful comments on earlier versions of this article.

²Research Associate, The Cecil G. Sheps Center for Health Services Research, and Assistant Professor, Curriculum in Public Health Nursing and Department of Health Policy and Administration, The University of North Carolina at Chapel Hill. Address correspondence to Jean E. Kincade, PhD, The Cecil G. Sheps Center for Health Services Research, Suite 210, 725 Airport Road, CB#7590, The University of North Carolina at Chapel Hill, Chapel Hill, NC 27599-7590.

³Post Doctoral Fellow, The Cecil G. Sheps Center for Health Services Research, The University of North Carolina at Chapel Hill.

⁴Research Associate, The Cecil G. Sheps Center for Health Services Research, The University of North Carolina at Chapel Hill.

⁵Research Associate, The Cecil G. Sheps Center for Health Services Research and Research Associate Professor, Department of Social Medicine, The University of North Carolina at Chapel Hill.

⁶Director, The Cecil G. Sheps Center for Health Services Research and Professor, Department of Health Policy and Administration, Department of Social Medicine and Department of Epidemiology, The University of North Carolina at Chapel Hill.

⁷Chief, Social Science Research on Aging, Behavioral and Social Research Program, National Institute on Aging, National Institutes of Health, Bethesda, MD.

motes the well-being of the providers (Cnaan & Cwikel, 1992).

What research has been done to document the scope of assistance and characteristics of the providers? Substantial research has focused on: (1) the characteristics of the older adult as the *recipient* of assistance (e.g., Coward, Horne, & Dwyer, 1992; Select Committee on Aging, 1987), (2) the *reciprocal assistance* provided between parents and children (e.g., Eggebeen, 1992; Speare & Avery, 1993; Spitze & Logan, 1992) or siblings (e.g., Avioli, 1989; Cicirelli, 1992; Suggs, 1989), and (3) the types of *volunteer work* provided by older adults (e.g., Marriott Senior Volunteerism Study, 1991; Perry, 1983). However, relatively few studies have asked representative samples of older people about the *range of assistance provided to others* (Patterson, 1987). In most of the studies cited, either the attention has been limited to those benefiting from (rather than providing) the care, or the scope of inquiry has been limited to family exchanges or to types of volunteer work provided, rather than to broadening the range of study to include other types of assistance provided (such as personal care for other adults or child care). Only three studies of which we are aware provided a more comprehensive picture of older people as recipients and givers of care (Herzog, Kahn, Morgan, Jackson, & Antonucci, 1989; Shenk, 1991; U.S. Bureau of the Census, 1990). This article contributes to the gerontological literature by using data collected from a nationally representative sample of community-dwelling older adults to examine the extent and type of assistance older people provide to others and the characteristics of both the providers and the recipients of that assistance.

Previous Studies

The term *informal caregiver* (as compared with formal caregiver) has been defined somewhat differently by researchers working in this area, but usually refers to care or services offered by a relative, friend, or neighbor who is a member of "a diffuse primary group characterized by its small size, affectivity, and durable commitment to each other's well-being" (DeFries & Woomert, 1992, p. 63). Schulz (1990) reviews two approaches that are used to obtain samples in caregiving research. The "direct" approach recruits caregivers directly during support group meetings of Alzheimer's, stroke, or cancer patients, while the "indirect" approach first locates older people with disabilities and asks them to identify their primary (and sometimes secondary) caregivers.

An example of the "direct" approach was the study conducted by Fortinsky and Hathaway (1990) where caregivers were recruited through the 20 Alzheimer's disease support groups in Maine. It was found that the active caregivers were overwhelmingly female (75.4%) and about one-third (34.5%) were 65 and older. An example of the "indirect" approach was the work of Coward, Horne, and Dwyer (1992), who used data from the 1982 National Long-Term Care Survey (NLTCs) to identify elderly persons with impairments living in community settings. Using these

data, they were able to describe the relationship between the caregiver and elderly recipient, the latter being the focus of their research. These authors found that wives and daughters were most frequently mentioned as caregivers and that older women were more apt than men to be receiving help from both adult children and formal service providers. The focus in both these approaches, however, was on the elderly recipient of care and only indirectly did we find out what proportion of caregivers were elderly.

Some studies focus on reciprocal assistance provided between parents and children (intergenerational) or between siblings. For example, a study by Spitze and Logan (1992) focused on the frequency of several types of help between parents and adult children and the manner in which helping relationships evolved throughout the life course. They found that most kinds of household help were given more frequently by elderly parents to children than by children to their parents. Cicirelli (1992) summarized research related to siblings as caregivers in middle and older age. He concluded that sisters provided more help to siblings than brothers; in the adult child sibling network, sisters shared the caregiving burden more equally than brothers; and sisters and brothers tended to fulfill caregiving tasks depending upon how the tasks fit traditional conceptions of male and female roles.

Older adults may provide help to others by serving as volunteers. Volunteering has been defined by Smith and Freedman (1972, p. 115) as "any unpaid work performed for or through an organization," while others have used a somewhat broader definition to include working for others without monetary compensation (Independent Sector, 1990). Chambré (1993) reviewed surveys from 1965 to 1990 that focused on older adult volunteers. Her review suggested that the percentage of older adults who volunteer has been increasing over time. In 1965, about 11% of those 65 and older had volunteered in the past year, but by the early 1990s, this percentage had increased to about 40%. However, these surveys varied widely in their definition of what is meant by being a volunteer. Older volunteers are more likely to be women, have a higher level of education and income, be in better health and have previous experience as a volunteer compared with nonvolunteers (Marriott Senior Volunteerism Study, 1991; Perry, 1983). In addition, the proportion of older adults who volunteer declines with age, especially over age 80 (Chambré, 1993). These studies tended to focus on broadly defined volunteer activities and did not ask about other types of help the older adults provided.

One study provided data to give a more comprehensive picture of assistance given to others by older people. The sixth interview of the 1985 panel of the Survey of Income and Program Participation (SIPP) asked questions both about help received and help provided to others (U.S. Bureau of the Census, 1990). This study included respondents 15 years of age and older from a representative national sample of households. Respondents were asked if they helped

another person with personal care, getting around outside, preparing meals, doing housework, or keeping track of bills and/or money and their relationship to that person. Only 14.9% of the sample was 65 years of age or older. Of those 65 years and older, 5.5% provided a household member and 7.9% provided a nonhousehold member with help with one or more activity. In another study, Herzog and her colleagues (1989) used data from the 1986 survey entitled *Americans' Changing Lives (ACL)* to study these issues. This was a nationally representative sample of 3,617 respondents 25 years of age and older who were asked about "productive activity," which was defined as those "activities that earn or save money or that help others in ways for which a market value can plausibly be imputed" (p. S130). They found that older Americans participated in a number of unpaid activities and noted the disadvantages of only including paid work in describing productive activity in their analysis. Findings from a multiphase qualitative study of 30 older women in central Minnesota (Shenk, 1991) provided evidence that older adults seek and provide assistance to and from a broad range of individuals. The decisions about seeking and providing assistance were "based on a range of variables including convenience, personal relationships and availability. Arrangements that maximized their personal independence and control are strongly preferred" (p. 351).

A different approach is taken in the study reported here by directly asking a representative national sample of older adults about help (of various types) they provide to others. Data are presented from the first wave of a longitudinal database on older adults, the National Survey of Self-Care and Aging (NSSCA), an in-person interview study of self-care practices among community-dwelling adults aged 65 and older. As part of this study, subjects were asked whether, and for whom, they provide a variety of types of assistance. As a result, the data set provides national estimates of the proportion and characteristics of older people who provide different types of assistance to others and the characteristics of both providers and recipients of these services.

In this article, the following questions are addressed: (1) What proportion of older people provide assistance to others? (2) What are the characteristics of older people who provide assistance to others? (3) Of those who provide personal assistance to others, what types of assistance do they provide? (4) To whom do older people provide personal assistance? (5) What is the association between the type of personal assistance provided and the characteristics of those who receive the assistance? (6) Which characteristics of older people are the best predictors of service to others?

Methods

Sample

The target population for the National Survey of Self-Care and Aging consisted of all community-

dwelling Medicare beneficiaries in the contiguous United States who were 65 years of age or older in 1990. The final design was a stratified, multistage sample with geographic stratification in the first stage, based on the distribution of Medicare beneficiaries 65 years of age or older. In all but the final stage of sampling, probability proportional to measures of target population size (PPS) selection methods were used. First, 50 primary sampling units, 38 urban and 12 rural, were randomly chosen. Standard Metropolitan Areas (SMAs) and counties served as primary sampling units (PSUs) in urban and rural areas, respectively. Within each urban PSU, three zip codes were selected in the second sampling stage. Eligible subjects who resided within these urban zip codes were then selected in the third stage. In rural counties the study sample was chosen from a list of all Medicare beneficiaries aged 65 and older in the county.

This sample is characterized by several unique features: (1) It is representative of the total noninstitutionalized elderly population of Medicare beneficiaries in the contiguous United States; (2) it has been stratified by gender and age (males and females 65 to 74 years, 75 to 84 years, and 85 years and older) in the final stage of selection, with oversampling of the oldest-old to facilitate subgroup analysis; and (3) it was selected proportional to the urban/rural distribution of the elderly population.

Baseline in-person interviews, lasting approximately one hour, were conducted with 3,485 respondents in the late fall and winter of 1990–1991. Ninety percent were conducted with the subject, while the remainder (10%) were conducted with proxies. Response rates, ranging from 66 to 71%, varied by age-sex categories and geographic location, with slightly higher response rates in the youngest age groups and among persons in rural communities. (For additional information about the study design, see Norburn et al., 1995.)

The analysis presented here uses estimation weights that account for the unequal probabilities of selection introduced by design considerations, potential biases introduced by differential coverage in the sampling frame, and sample imbalance due to varying response rates among important population subgroups (e.g., by age; Lessler & Kalsbeek, 1992). An initial set of weights was produced to reflect the probability of selection for each survey respondent. These weights were then post-stratified to match the age-race-sex distribution of the noninstitutionalized component of the Medicare Current Beneficiary Survey. Using the adjusted estimation weights enables the construction of valid national population estimates.

Measures

Dependent Variables. — (A) Assistance to Others. All subjects were asked about three types of assistance that may have been provided to others. The question was asked, "During the last 12 months, did you periodically . . .?" followed by the list of activi-

ties: provide child care, do volunteer work, or listen to others/offer advice and support. Individuals answered "yes" or "no" to each of these three types of activities. An additional open-ended question asked about any other assistance they may have given to others during the 12 months preceding the interview.

(B) Personal Care. An initial question was asked to determine if subjects had helped anyone with any day-to-day activities during the last 12 months. If the subject answered "yes," he or she was then asked, "During the last 12 months, did you ever help another person . . . ?" followed by a list of 15 activities. These activities were categorized into three dimensions: providing help with Basic Activities of Daily Living (BADL; i.e., helping someone to eat, bathe, or dress), help with Mobility Activities of Daily Living (MADL; i.e., helping someone to transfer, get outside, walk or get to the toilet), and/or help with Instrumental Activities of Daily Living (IADL; i.e., helping someone to prepare meals, do heavy or light housework, do yard work, prepare meals, take meals to someone, use the telephone, manage money, or shop for personal items). Individuals answered "yes" or "no" to each of the 15 specific activities. For each of these three ADL dimensions, a score was obtained by summing the number of activities with which the subject provided assistance. These scores were then collapsed into three dichotomous variables indicating whether the individual provided (or did not provide) assistance to another person with any of the types of activities within each functional domain. In addition, for some of the analysis, an overall score for personal care was created to indicate whether or not the subject provided assistance with any of the 15 activities. If the subject helped another individual with any item, the following was asked, "Who did you help?" These responses were categorized by relationship to the care provider (i.e., whether the person helped was a spouse, another relative, or a close friend or neighbor).

Independent Variables. — The following subject characteristics are included in the analysis: age, gender, race, marital status, education, family/individual income as a percent of federal poverty guidelines, household composition (living alone), geographic residence (rural-urban), and self-perceived health. Age is divided into three categories: 65–74 years, 75–84 years, and 85 and older. Race is divided into African American and white/other. Asians and Hispanics are included in the "other" group and combined with the "white" category because they constituted too small a group for analysis. Household composition is defined as living alone versus living with at least one other person. Education was determined by asking subjects what was the last grade of school they had completed. For this analysis, level of education was collapsed into four groups: primary grades (0 to 8 years of education), some high school (9 to 11 years), high school or trade school (high school or equivalent, business or trade school without finishing high school, or post high school business or trade school), and some college or more (at

least one year of college). Current marital status was defined as never married, currently married, widowed, separated or divorced. Place of residence was collapsed into two groups: urban (MSA census definition) and rural (non-MSA census definition). Perceived health status was determined by the response to the following question: "How would you rate your health at the present time? Would you say it is . . . (excellent, very good, good, fair, poor)?"

Household income was coded in 12 ordered categories. The family or household income variable was divided by the number of people supported by that income. Using the 1989 Bureau of the Census threshold for 100% of poverty level, the sample was categorized into five groups: below 100% of poverty, 100 to 149% of poverty, 150 to 199% of poverty, 200 to 399% of poverty, and 400% or more of poverty. (For additional information about imputation of missing values for income data, see Norburn et al., 1995.)

Analysis

Descriptive and multivariate analyses were performed on the NSSCA data set in order to address the five research questions posed earlier. Weighted frequency distributions and weighted cross-tabulations were calculated using SUDAAN software (Research Triangle Institute, 1989) to: (1) assess the types of assistance provided, and (2) categorize the different providers and recipients of each type of assistance. SUDAAN properly incorporates all relevant features of the complex sampling design used in this study (i.e., PSU stratification, cluster sampling, and variable weights). Weighted multivariate logistic regression procedures were performed to identify important predictors of the likelihood of: (a) providing personal care, (b) providing child care, (c) performing volunteer services, and (d) listening or offering advice and support. In each multivariate model estimation, the dependent variable was coded with a value of one, indicating that some assistance was provided. A significance level of $p < .05$ was used in all multivariate model estimations.

Results

Table 1 shows both the total number of older adults who provide assistance and their sociodemographic characteristics. Approximately one-third of community-dwelling elderly persons in the United States (about 8.5 million) provide assistance with personal care, almost one-fifth provide child care (15.7% or 4.4 million), or perform volunteer work (19.7% or 5.5 million), while 40% (11 million) listen to others/offer advice and support. An additional 13.6% answered affirmatively when asked an open-ended question about any other type of assistance they provide. Other categories of assistance (not shown in table) provided include financial help to family and friends, transportation to doctor's appointments and church, household and car repairs, writing letters, visits to sick friends and family, and feeding neighbor's pets.

Table 1. Characteristics of Older Persons Who Provide Assistance to Others by Type of Assistance (in Thousands)

Characteristic	Personal Care		Child Care		Volunteer Work		Listen/Offer Advice and Support	
	<i>n</i>	Percent \pm SE	<i>n</i>	Percent \pm SE	<i>n</i>	Percent \pm SE	<i>n</i>	Percent \pm SE
Total who provide assistance	8,531	30.7 \pm 2.48	4,358	15.7 \pm 1.34	5,467	19.7 \pm 1.35	10,982	39.5 \pm 3.39
Age								
65–74 years	5,255	35.1 \pm 3.43*	3,237	21.6 \pm 2.01	3,349	22.4 \pm 2.00	6,480	43.3 \pm 3.71
75–84 years	2,937	29.3 \pm 2.61	973	9.7 \pm 1.50	1,839	18.4 \pm 1.89	3,674	36.6 \pm 3.69
85 years and older	331	11.9 \pm 1.57	147	5.3 \pm 1.09	279	10.1 \pm 1.25	827	29.8 \pm 3.81
Sex								
Female	5,044	30.7 \pm 2.84	2,833	17.2 \pm 1.89	3,107	18.9 \pm 1.96	6,806	41.4 \pm 3.85
Male	3,479	30.6 \pm 2.85	1,525	13.4 \pm 1.58	2,360	20.8 \pm 1.65	4,175	36.7 \pm 3.41
Race								
African American	794	28.3 \pm 3.68	459	16.4 \pm 2.71	330	11.8 \pm 3.50	1,241	44.2 \pm 5.73
Other	7,729	30.9 \pm 2.68	3,899	15.6 \pm 1.43	5,137	20.6 \pm 1.41	9,740	39.0 \pm 3.59
Current marital status								
Married	5,380	35.8 \pm 2.86	2,576	17.1 \pm 1.72	3,412	22.7 \pm 1.76	5,986	39.9 \pm 3.19
Widowed	2,362	23.8 \pm 3.31	1,524	15.4 \pm 2.09	1,739	17.6 \pm 2.34	3,834	38.7 \pm 4.27
Divorced	361	29.2 \pm 7.24	168	13.6 \pm 3.36	140	11.3 \pm 2.96	550	44.5 \pm 6.47
Separated	84	26.7 \pm 12.41	31	10.0 \pm 8.85	18	5.9 \pm 5.64	105	33.5 \pm 14.84
Never married	335	25.7 \pm 5.63	58	4.5 \pm 3.12	158	12.1 \pm 3.87	496	38.1 \pm 7.57
Place of residence								
Urban	6,146	31.0 \pm 3.12	3,281	16.6 \pm 1.51	3,982	20.1 \pm 1.67	8,050	40.6 \pm 4.19
Rural	2,376	29.8 \pm 3.85	1,077	13.5 \pm 2.91	1,485	18.6 \pm 2.20	2,932	36.8 \pm 5.69
Education								
Primary grades	623	25.3 \pm 2.81	315	12.8 \pm 2.19	82	3.3 \pm 0.85	554	22.5 \pm 3.78
Some high school	2,128	24.8 \pm 2.84	1,303	15.2 \pm 2.29	989	11.5 \pm 1.26	2,660	31.0 \pm 3.48
High school or trade school	3,206	31.4 \pm 3.44	1,782	17.4 \pm 1.81	2,388	23.4 \pm 2.60	3,973	38.9 \pm 4.44
Some or completed college	2,470	40.1 \pm 3.32	891	14.4 \pm 2.38	1,956	31.8 \pm 3.29	3,632	58.9 \pm 4.41
Family income as a percent of poverty								
Less than 100% of poverty	1,151	25.6 \pm 2.88	678	15.1 \pm 2.57	319	7.1 \pm 1.68	1,392	31.0 \pm 4.25
100–149% of poverty	1,206	23.2 \pm 3.36	536	10.3 \pm 2.31	529	10.2 \pm 1.38	1,611	30.9 \pm 3.84
150–199% of poverty	1,110	28.3 \pm 3.56	582	14.8 \pm 2.32	707	18.0 \pm 2.46	1,485	37.8 \pm 6.27
200–399% of poverty	3,289	35.2 \pm 3.41	1,698	18.1 \pm 2.47	2,548	27.3 \pm 2.34	3,916	41.9 \pm 3.83
400% or more of poverty	1,767	36.7 \pm 3.10	864	17.9 \pm 2.16	1,365	28.4 \pm 3.22	2,576	53.6 \pm 4.01
Lives alone								
No	6,476	33.3 \pm 2.84	3,435	17.7 \pm 1.42	3,982	20.5 \pm 1.48	7,624	39.2 \pm 3.27
Yes	2,047	24.5 \pm 3.25	923	11.1 \pm 1.71	1,485	17.8 \pm 2.25	3,357	40.2 \pm 4.08
Perceived present health								
Excellent	1,236	34.2 \pm 3.74	744	20.6 \pm 3.77	1,087	30.1 \pm 3.72	1,645	45.5 \pm 5.10
Very good	2,296	35.9 \pm 3.41	1,275	19.9 \pm 2.04	2,016	31.6 \pm 3.59	3,133	49.1 \pm 4.54
Good	2,939	36.5 \pm 3.85	1,142	14.2 \pm 1.59	1,494	18.6 \pm 1.75	3,037	37.8 \pm 3.63
Fair	1,707	24.6 \pm 3.05	939	13.6 \pm 2.63	775	11.2 \pm 1.94	2,449	35.3 \pm 3.76
Poor	331	12.1 \pm 2.83	244	8.9 \pm 2.49	86	3.1 \pm 1.13	682	25.0 \pm 4.89

*This represents the percentage of each subgroup that provides assistance. For example, 35.1% of those 65–74 years, 29.3% of those 75–84 years, and 11.9% of those 85 and older provide personal care.

Based on 1990 population estimates of approximately 27 million Americans over the age of 65 living in noninstitutional settings, excluding Hawaii and Alaska; totals within categories vary slightly because of missing values.

In all cases, the percentage of older adults who provide assistance declines sharply across the age groupings (and particularly after age 85). This relationship is most pronounced for assistance with personal care and child care and is least pronounced for listening/offering advice and support. A smaller percentage of African Americans do volunteer work compared to whites/others, and smaller proportions of those who are divorced, separated or never married provide child care and perform volunteer work compared to those who are married or widowed. The estimates for marital status are based on low preva-

lence and must be viewed with some caution because of the size of the standard error in relation to the estimate. A smaller percentage of older adults with lower education and lower income do volunteer work. Even so, providing assistance is not an activity reported only by those in excellent health. Except for the percent performing volunteer work, which is lower for older adults with good, fair or poor self-ratings of health, the percentage of older adults providing help declines only slightly until self-rated health for the provider is reported as poor. Overall, and for each category of assistance, there is a high

degree of similarity in the background characteristics of individuals providing help. (As an example, nearly equal proportions of men and women provide assistance with personal care, child care, do volunteer work or listen and offer advice.)

Table 2 focuses on the subgroup of respondents who provide personal care to others, by type of assistance provided. The overwhelming majority report that they provide help with IADLs or IADLs in combination with some other type of personal care. Providing assistance with IADLs only, or in combination with BADLs and/or MADLs accounts for 96.7% of assistance provided with personal care.

Table 3 shows that nearly the same percentages of spouses, other relatives, and close friends/neighbors are the recipients of assistance with personal care. The assistance given by older adults seems to be directed toward only one individual (i.e., spouse only, other relative only, or close friend or relative only) rather than a variety of individuals.

Table 4 describes the relationship between the type of personal assistance provided and the recipient of that assistance. As noted in Table 2, small numbers of respondents assist with basic ADLs only, mobility ADLs only, or a combination of basic ADLs and mobility ADLs. When assistance is provided with basic ADLs or mobility ADLs only, it is most likely given to assist a close friend or neighbor. Some of these estimates are based on behaviors of low prevalence and must be viewed with caution because of the size of the standard errors in relation to the estimates. Most striking is the fact that across all recipients, the most common type of personal assistance provided is for *instrumental* ADLs (alone, or in combination with other activities). In addition, when only instrumental ADL assistance is provided, it is usually given to only one person. In contrast, when instrumental ADL assistance is provided in combination with other ADLs, there is a much broader range of recipients receiving such care.

Table 5 presents the results of the multivariate analysis to identify important predictors of the likeli-

Table 2. Percentage of Older Adults Who Provide Personal Care by Type of Personal Care (in Thousands)

Type of Personal Care	<i>n</i>	Percent ± SE
Provides assistance with:		
Basic activities of daily living only	72	0.8 ± 0.54
Mobility activities of daily living only	207	2.4 ± 0.52
Instrumental activities of daily living only	5,154	60.4 ± 3.22
Both basic and mobility activities of daily living	6	0.1 ± 0.08
Both basic and instrumental activities of daily living	527	6.2 ± 1.42
Both mobility and instrumental activities of daily living	1,132	13.3 ± 1.69
Basic, mobility, and instrumental activities of daily living	1,432	16.8 ± 2.40
Total	8,531	100.0

Note: Based on 1990 population estimates of approximately 27 million Americans over the age of 65 living in noninstitutional settings, excluding Hawaii and Alaska.

Table 3. Percentage of Older Adults Who Provide Personal Care by Type of Relationship With Recipient (in Thousands)

Person Who Receives Personal Care	<i>n</i>	Percent ± SE
Spouse only	1,930	22.6 ± 2.70
Other relative only	2,349	27.5 ± 2.18
Close friend or neighbor only	2,787	32.7 ± 3.39
Both spouse and other relative	425	5.0 ± 0.89
Both spouse and close friend or neighbor	297	3.5 ± 0.51
Both other relative and close friend or neighbor	650	7.6 ± 1.47
Spouse, other relative, and close friend or neighbor	93	1.1 ± 0.37
Total	8,531	100.0

Note: Based on 1990 population estimates of approximately 27 million Americans over the age of 65 living in noninstitutional settings, excluding Hawaii and Alaska.

Table 4. Relationship Between Type of Personal Care and Recipient of Care (in Thousands)

Type of Personal Care	Recipient of Care					Total
	Spouse Only (Percent ± SE)	Other Relative Only (Percent ± SE)	Close Friend/Neighbor Only (Percent ± SE)	Spouse and One or More Others (Percent ± SE)	Other Relative and Friend/Neighbor (Percent ± SE)	
BADL only	0.7 ± 0.87	30.6 ± 14.34	68.7 ± 14.07	0.0	0.0	<i>N</i> = 72
MADL only	23.6 ± 12.52	6.9 ± 5.58	66.1 ± 13.39	3.4 ± 3.33	0.0	<i>N</i> = 207
IADL only	21.6 ± 3.66	29.9 ± 3.34	35.1 ± 4.72	9.3 ± 1.38	4.2 ± 1.08	<i>N</i> = 5,154
BADL and MADL	0.0	0.0	100.0	0.0	0.0	<i>N</i> = 6
BADL and IADL	25.5 ± 8.61	22.5 ± 8.09	10.7 ± 4.29	25.1 ± 8.72	16.1 ± 5.64	<i>N</i> = 527
MADL and IADL	8.8 ± 2.82	27.9 ± 5.82	42.5 ± 6.57	4.5 ± 2.16	16.2 ± 6.32	<i>N</i> = 1,132
BADL, MADL and IADL	37.2 ± 5.48	23.6 ± 4.61	17.4 ± 4.99	10.1 ± 2.53	11.7 ± 4.91	<i>N</i> = 1,432

Note: Based on 1990 population estimates of approximately 27 million Americans over the age of 65 living in noninstitutional settings, excluding Hawaii and Alaska. BADL = Basic Activities of Daily Living; MADL = Mobility Activities of Daily Living; IADL = Instrumental Activities of Daily Living.

Table 5. Predictors of Providing Assistance to Others by Category of Assistance (Odds Ratios)

Variable	Personal Care (n = 27,772)	Child Care (n = 27,699)	Volunteer Work (in thousands) (n = 27,720)	Listen/Offer Advice and Support (n = 27,639)
Age				
65–74 years#				
75–84 years	0.873***	0.393***	0.959	0.806***
85 years and older	0.324***	0.180***	0.604***	0.631***
Sex				
Male (vs female)	0.726***	0.616***	0.881**	0.697***
Race				
African American (vs other)	1.022	1.019	0.879*	1.754***
Current marital status				
Married	1.565***	2.993***	2.099***	1.069
Widowed	1.025	4.962***	1.761***	1.104
Divorced	1.170	3.055***	1.027	1.331***
Separated	1.224	1.721*	0.674	0.837
Never married#				
Place of residence				
Rural (vs urban)	1.015	0.846***	1.082*	0.938*
Education				
Primary grades#				
Some high school	0.835***	1.023	2.038***	1.352***
High school or trade school	0.928	0.811**	3.280***	1.658***
Some college or more	1.440***	0.715***	4.689***	3.692***
Family income as a percent of poverty				
Less than 100% of poverty	1.039	1.058	0.463***	0.895*
100–149% of poverty	0.803***	0.592***	0.516***	0.823***
150–199% of poverty	0.893**	0.903	0.812***	1.060
200–399% of poverty#				
400% or more of poverty	0.935	1.112*	0.854***	1.299***
Living arrangements				
Lives alone (vs lives with others)	0.880**	0.503***	1.218***	1.051
Perceived present health				
Excellent	3.292***	2.370***	8.022***	1.875***
Very good	3.473***	2.304***	8.341***	2.127***
Good	3.963***	1.637***	4.544***	1.467***
Fair	2.408***	1.568***	3.068***	1.432***
Poor#				

Note: Totals for each model vary slightly because of missing values. # = referent category.

* $p \leq .05$; ** $p \leq .01$; *** $p \leq .001$.

hood of: (a) providing personal care, (b) providing child care, (c) performing volunteer services, and (d) listening and offering advice and support.

Providing Personal Care. — The odds of providing personal care declines with age and is lower for men than women. Respondents who are married are one and one-half times more likely to provide personal care than those who are never married. This is not surprising because many married couples help one another. Higher education (some college or more) appears to increase the odds of providing personal care, although these findings are statistically significant for only two of the three education groups. Two categories of family income (100–149% of poverty and 150–199% of poverty) as well as living alone are associated with a decrease, albeit slight, in the odds of providing personal care. The most striking finding is the association between self-perceived health and

the likelihood of providing personal care. Using poor perception of health as a referent category, even fair ratings of health are associated with nearly 2.5 times the odds of providing personal care. On the other hand, race and place of residence do not alter the odds of providing personal care.

Providing Child Care. — Older age, being male, and living in rural areas are associated with a decrease in the odds of providing child care, while being married at some point during one's lifetime is associated with an increase in the odds of providing child care. This latter finding was anticipated because these respondents are more likely to have grandchildren. Geographic mobility of the children of rural elderly persons that may result in greater distances from grandchildren may be a partial explanation for the decreased odds of rural elderly persons providing child care. Both education and living alone are associ-

ated with a decrease in the odds of providing child care. Self-perceived health is significantly related to providing child care, although not with the same magnitude as for the provision of personal care; those in good or fair (as opposed to poor) health are about one and one-half times more likely to provide child care. In general, family income and race do not alter the odds of providing child care.

Performing Volunteer Services. — Being very old (85 and older) is associated with a reduction in the odds of performing volunteer work. Although the odds ratios for gender, race, place of residence, and living arrangements are all significant, they are close to 1. Similarly, although the odds ratios for education and income are both significant, the magnitude of the effect of education is considerably larger than the impact of income on the likelihood of performing volunteer work. Perceived health has a substantial impact on the odds of performing volunteer work; those in excellent or very good health (as opposed to poor health) are over eight times more likely to provide volunteer services.

Listening and Offering Advice. — Advancing age and being male decrease the odds of listening and offering advice to others as a form of assistance, while being white or other race, having higher education, and reporting better perceived health increase these odds. The odds ratios for being divorced (as opposed to never being married), living in a rural area, and living alone also are statistically significant, but they are close to one. Living alone is not associated with the odds of listening and offering advice and support.

Discussion

This article addressed six questions concerning the proportion and characteristics of older people who provided different types of assistance to others and the characteristics of both the providers and recipients of these services. In this section, these questions will be revisited in light of the results.

(1) What proportion of older people provide assistance to others? It is evident from the data presented in this article that impressive numbers of older people in the United States provide assistance in a variety of different areas, thereby contributing significantly to the vitality of their social networks and their community integration. Although a smaller percentage of older adults report that they volunteer their time and effort in assistance to others compared to that reported in prior studies (Chambré, 1993), this may be in part an artifact of the data from the present study. Most other studies of volunteer behavior focused *only* on volunteer activities and did not ask about the provision of other types of assistance. In this study, however, respondents were asked about help provided both with different types of personal care (including such things as help with yard work, bringing meals to another person and shopping), and child

care, prior to being asked about the extent of their volunteer commitments. As a result, some of the activities that were classified as volunteer work in other studies may have been classified as other categories of assistance (e.g., personal care, child care, or listening/offering advice) in the current study.

(2) What are the characteristics of older people who provide assistance to others and which of these characteristics are the best predictors of service to others? In the descriptive analysis, surprisingly similar proportions of men versus women, rural versus urban-dwellers, and older adults living solo versus multiple-occupant dwellings provided assistance to others. After controlling relevant variables in the multivariate analysis, however, the most consistent predictors across the four categories of assistance were age, gender, and self-reported health status. Education also was a positive predictor of the likelihood of performing volunteer work and listening or giving advice, while income was a positive predictor of the likelihood of performing volunteer work. These predictors are similar in magnitude and direction to those found in other studies (Chambré, 1993; Marriott Senior Volunteerism Study, 1991; Perry, 1983).

In general, those who provide assistance are most likely to be female and in the younger age groups, and in addition, those who volunteer are more likely to have higher education. In future cohorts, however, women will be more likely to be in the work force and overall educational attainment will increase. Also, Social Security and other pension programs are facing greater financial risk, resulting in the necessity for many older people to remain employed to an older age (Cnaan & Cwikel, 1992). Therefore, as the age of retirement and amount of education increase, it will be important to monitor the possible impact of these factors on the willingness of future generations of older adults to provide assistance to others. It is also noteworthy that assistance to others is not an activity restricted to those who perceive their health to be extremely good. On the contrary, for a large proportion of older adults, providing assistance does not decline substantially until the older person perceives his or her health to be poor. This finding provides convincing evidence that older adults continue to provide assistance to others even when their own health may be declining.

(3) Of those who provide personal assistance to others, what types of assistance do they provide, to whom do older people provide personal assistance, and what is the association between the type of personal assistance provided and characteristics of those who receive assistance? It is not surprising that older adults are most likely to provide help with instrumental activities of daily living (including such things as yard work, light and heavy housework, making meals, bringing meals to someone, shopping for personal items, etc.), because instrumental ADLs do not require the intimacy and continuous proximity of the person providing help, as is the case with basic and mobility ADLs (Norburn et al., 1995). Moreover, when assistance with mobility or basic ADLs is provided, such assistance is generally pro-

vided in combination with IADLs and given to a wide spectrum of individuals.

It has been pointed out by proponents of activity theory that older persons contribute to society not only through their volunteer work and assistance to others but also that these "activities increase their health and well-being." Therefore, "they benefit themselves as well as a society that might otherwise be burdened with the consequences of their bad health and lowered well-being" (Herzog & House, 1991, pp. 52–53).

In conclusion, it is evident that older adults are a resource to the communities in which they live. Although we did not ascertain the age of the person to whom assistance was provided, it is clear from the questions we did ask that older adults provide assistance to individuals both related and unrelated to them, and to persons of all ages. As discussed earlier, the potential of older people as a resource could be influenced by a number of factors, some of which may increase and some of which may decrease the size of this resource. Increased life expectancy, in conjunction with increased levels of education and income and technological advances to improve quality of life, may increase the likelihood that older adults will be able to help others, while increased workforce participation and continued threats to financial security (due to cutbacks in Medicare and increases in the Social Security retirement age) may reduce the availability of older adults to provide assistance and serve as resources to others. In the future, more opportunities should be made available to further explore the implications and expand the potential of this resource.

References

- Avioli, P. S. (1989). The social support functions of siblings in later life. *American Behavioral Scientist*, 33, 45–57.
- Chambré, S. M. (1993). Volunteerism by elders: Past trends and future prospects. *The Gerontologist*, 33, 221–228.
- Cicirelli, V. G. (1992). Siblings as caregivers in middle and older age. In J. W. Dwyer & R. T. Coward (Eds.), *Gender, families and eldercare* (pp. 84–101). Newbury Park, CA: Sage.
- Cnaan, R. A., & Cwikel, J. G. (1992). Elderly volunteers: Assessing their potential as an untapped resource. *Journal of Aging & Social Policy*, 4(1/2), 125–147.
- Coward, R. T., Horne, C., & Dwyer, J. W. (1992). Demographic perspectives

- on gender and family caregiving. In J. S. Dwyer & R. T. Coward (Eds.), *Gender, families, and eldercare* (pp. 18–33). Newbury Park, CA: Sage.
- DeFries, G. H., & Woomert, A. (1992). Informal and formal health care systems serving older persons. In M. G. Ory, R. P. Ables, & P. D. Lipman (Eds.), *Aging, health and behavior* (pp. 57–82). Newbury Park, CA: Sage.
- Eggebeen, D. J. (1992). Family structure and intergenerational exchanges. *Research on Aging*, 14, 427–447.
- Fortinsky, R. H., & Hathaway, T. J. (1990). Infrastructure and service needs among active and former family caregivers of persons with Alzheimer's disease. *The Gerontologist*, 30, 604–609.
- Herzog, A. R., & House, J. S. (1991). Productive activities and aging well. *Generations*, 15(1), 49–54.
- Herzog, A. R., Kahn, R. L., Morgan, J. N., Jackson, J. S., & Antonucci, T. C. (1989). Age differences in productive activities. *Journal of Gerontology: Social Sciences*, 44, S129–S138.
- Independent Sector. (1990). *Giving and volunteering in the United States*. Washington, DC: Author.
- Lessler, J. T., & Kalsbeek, W. D. (1992). *Nonsampling error in surveys*. New York: Wiley.
- Marriott senior volunteerism study. (1991). Commissioned by Marriott Senior Living Services and United States Administration on Aging. Washington, DC: Marriott Senior Living Services.
- Norburn, J. E. K., Bernard, S. L., Konrad, K. R., Woomert, A., DeFries, G. H., Kalsbeek, W. D., Koch, G. G., & Ory, M. G. (1995). Self-care and assistance from others in coping with functional status limitations among a national sample of older adults. *The Journal of Gerontology: Social Sciences*, 50B, S101–S109.
- Patterson, S. L. (1987). Older rural natural helpers: Gender and site differences in the helping process. *The Gerontologist*, 27(5), 639–644.
- Perry, W. H. (1983). The willingness of persons 60 or over to volunteer: Implications for the social services. *Journal of Gerontological Social Work*, 5, 107–118.
- Research Triangle Institute. (1989). *SUDAAN. Professional Software for SURvey DATA ANalysis*. Research Triangle Park, NC: Author.
- Schulz, R. (1990). Theoretical perspectives on caregiving: Concepts, variables and methods. In D. E. Biegel & A. Blum (Eds.), *Aging and caregiving: Theory, research, and policy* (pp. 27–52). Newbury Park, CA: Sage.
- Select Committee on Aging (U.S. House of Representatives). (1987). *Exploding the myths: Caregiving in America* (Report No. 99-611). Washington, DC: U.S. Government Printing Office.
- Shenk, D. (1991). Older rural women as recipients and providers of social support. *Journal of Aging Studies*, 5, 347–358.
- Smith, C., & Freedman, A. (1972). *Voluntary associations in community service*. New York, NY: Community & Service Society.
- Speare, A., & Avery, R. (1993). Who helps whom in older parent-child families. *Journal of Gerontology: Social Sciences*, 48, S64–S73.
- Spitze, G., & Logan, J. R. (1992). Helping as a component of parent-adult child relations. *Research on Aging*, 14, 291–312.
- Suggs, P. K. (1989). Predictors of association among older siblings: A black/white comparison. *American Behavioral Scientist*, 33, 70–80.
- U.S. Bureau of the Census. (1990). *The need for personal assistance with everyday activities: Recipients and caregivers* (Current Population Reports, Series P-70, No. 19). Washington, DC: U.S. Government Printing Office.
- U.S. Bureau of the Census. (1992). *Sixty-five plus in America* (Current Population Reports, Special Studies, P-23-178RV). Washington, DC: U.S. Government Printing Office.
- Wisensale, S. K. (1991). An intergenerational policy proposal for the 1990s: Applying the temporary disability insurance model to family caregiving. *Journal of Aging and Social Policy*, 3, 163–183.

Received April 13, 1995

Accepted October 7, 1995