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Are Baby Boomers Who Care for their Older Parents Planning for their Own Future Long-Term Care Needs?

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Abstract

A rapidly expanding number of baby boomers provide care to aging parents. This study examines associations between caregiver status and outcomes related to awareness and anticipation of future long-term care (LTC) needs using 2007 Connecticut Long-Term Care Needs Assessment survey data. Baby boomers who were adult child caregivers (n = 353) vs. baby boomers who were not (n = 1242) were more likely to anticipate some future LTC needs and to have considered certain financing strategies. Although baby boomer adult child caregivers more readily anticipate some future LTC needs, they are not taking specific actions. It is important to address the need for public education directed towards those who are currently (or have recently completed) caring for aging parents.

Keywords

caregivers; successful aging; baby boomers; expectations

INTRODUCTION

As baby boomers transition to later life, it will become increasingly important to understand if and to what extent they are planning for and anticipating their own future long-term care (LTC) needs. Unless boomers prepare for their future LTC needs with enhanced financial planning or private LTC insurance coverage, the financial burden on younger cohorts will increase dramatically in the coming decades. In this paper, we aim to gain a better understanding of the planning and anticipation of baby boomers for their future LTC needs, and to gauge whether and to what extent current caregiving affects their planning behaviors.

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BACKGROUND

Successful aging is a term used with increasing frequency, reflecting a growing desire on the part of the U.S. population to age with improved health and greater independence. Achieving successful aging includes planning for the future and anticipating one's future needs. But how much do people really plan and anticipate their future needs? One large study sponsored by the AARP examined the views of homeowners over the age of 45 regarding their future plans (Greenwald, 2003). Most respondents recognized the importance of planning but had not given much thought to planning for their future housing and LTC situations (Greenwald, 2003).

The aging of the population together with the high prevalence of age-related disability is leading to a significant increase in the need for LTC services and anticipated need for financing of these LTC services in the future. LTC is expensive, and few people have insurance coverage to protect themselves against the high costs of LTC. Most people ultimately depend on Medicaid after spending down their own assets to pay for their LTC needs. Government expenditures for LTC services are substantial and will increase exponentially over the coming decades as baby boomers age. The Urban Institute projects that the number of older adults using paid home care will increase by 75% between 2000 and 2040, and the number in nursing homes will increase by 66% (Johnson, Toohey & Wiener, 2007).

The majority of older adults with LTC needs prefer to stay at home with informal care (i.e., family and friends) or community-based care, rather than institutional care. An increasing number of older adults with disabilities receive informal care from family and friends. An estimated 52 million caregivers, or 21% of the U.S. adult population, currently provide unpaid care to family and friends age 18 and older over the course of a year (Pandya, 2005). Approximately 50% of informal caregivers are adult children (Ory, Hoffman, Yee, Tennstedt, & Schulz, 1999). The number of adult child caregivers is rising, and is expected to continue to rise as the population ages (Libert, 1986; Wolff & Kasper, 2006). Data from the Urban Institute project show that the number of older adults receiving help from their adult children will increase by about one-third between 2000 and 2040 (Johnson, Toohey & Wiener, 2007). Today, the average age of the informal caregiver for chronically disabled older care recipients is 57 years old, and therefore falls within the baby boomer cohort, that is, people born between the years 1946 and 1964 (Wolff & Kasper, 2006).

Factors Affecting Planning: A Conceptual Framework

Studies have shown that LTC planning decisions are complex and involve not only monetary issues. It is clear from prior research that both behavioral and psychosocial factors play a large role in these decisions as well (Curry, Robison, Shugrue, Keenan, & Kapp, 2009). We look to existing models to guide our understanding. The theory of planned behavior provides a starting point in generating a conceptual framework on which to base our study. In the theory of planned behavior, a “behavioral achievement”; that is, taking a certain action or participating in a specific behavior can be predicted by two factors: perceived behavioral control and behavioral intention (Ajzen, 1991). Perceived behavioral control describes an individual's perception of the ease or difficulty of achieving a specific behavior. Behavioral intention refers to an individual's level of motivation to achieve a certain behavior. The notions of perceived behavioral control and behavioral intention can be applied towards the issue of LTC planning and how people make decisions for their futures. What affects a person's perceived behavioral control of the factors influencing their ability to age more or less successfully? Does caregiving exposure make a caregiver feel that he has more or less behavioral control? Does it enhance behavioral intention? Measuring perceived behavioral control is challenging, and certainly not the focus of this study.

Nonetheless, the idea that a prior experience such as providing care to an aging parent would affect the caregiver's perceived behavioral control is compelling. Aging baby boomers may indeed be influenced by their experiences of and exposure to their own parents' aging. Their level or extent of involvement in their parents' decisions in late life may affect their own decisions and plans for their own aging.

Factors That Lead to LTC Planning

The gerontology literature reflects interest in planning on the part of older people both for LTC and in a variety of other areas. Pertinent domains include personal finances, residential location, and post-retirement roles. In one qualitative study exploring how older adults make decisions about residential adjustments in later life, the experiences of the individuals' parents were found in many cases to affect their own planning behaviors (Gottlieb, Stoeckel, & Caro, 2009). One large study used data from the 2004 Wisconsin Longitudinal Study to examine patterns and predictors of formal end-of-life planning strategies among retirement age individuals. The results demonstrated that end-of-life health planning was highly correlated with financial planning, and that the people most likely to carry out these planning behaviors were females with higher education and higher net worth (Su, 2008).

A review of the existing literature reveals that much of the research in the area of LTC planning is based around the decision to purchase (or perhaps not purchase) LTC insurance as a pivotal planning behavior. While the planning behaviors examined in this study are broad in scope, the literature on purchasing LTC insurance also provides a useful background. One recent analysis used data from the 2002 and 2004 Health and Retirement Study to explore the association of perceived risk of need for LTC and decision-making among older married couples to purchase or retain LTC insurance policies. The study demonstrated that older married people who perceive their or their spouse's risk of needing LTC to be higher are more likely to purchase LTC insurance. Furthermore, the study highlights that married people tend to make this decision together (Caro, Porell, & Kwan, 2011).

Stum proposed and tested a family decision-making model for understanding decision-making processes specifically around group LTC insurance on a large random sample (n = 1600) of public employees (Stum, 2008). This study found that employees with prior experience with LTC, and with higher financial knowledge, had higher odds of enrolling in LTC insurance plans. This finding suggests that caregiving exposure, which implies prior experience with LTC, would be associated with enhanced LTC planning, represented in this instance by a decision to purchase LTC insurance. In addition, several other studies show that individuals with prior experience of long-term caregiving were more likely to enroll in LTC insurance plans for themselves (Stucki, 2001; Stum, 2001). In these studies, caregiving experience was studied as a dichotomous variable. However, another study (Schaber & Stum, 2007) of a large random sample of public employees that looked at multiple factors influencing LTC insurance enrollment decisions found that prior experience with caregiving was not significantly associated with enrollment. Our study aims to examine this association, among others, in more detail.

Barriers to LTC Planning

Despite several potential motivating factors, many barriers to LTC planning remain. One small qualitative study of eighteen older adults identified several reasons for failure to plan for LTC: not seeing oneself as dependent, lack of perception of the impacts/costs of dependency, lack of current concern about possible dependency and its impacts, and a belief that the individual does not have control over risk of dependency (McGrew, 2000). Similarly, a larger quantitative study highlights five major cultural obstacles to LTC

planning, including not wanting to think of oneself as dependent, mixed messages about aging, emphasis on acute rather than chronic conditions, traditions of caregiving that conflict with planning, and blindness to issues of women as primary caregivers (San Antonio & Rubenstein, 2004).

Caregiving Exposure and Its Effects on LTC Planning

It is clear that decision-making around LTC planning is complex, and depends on multiple diverse factors. The studies highlighted above show that experiences with aging parents can affect older adults' attitudes or predispositions to planning for residential adjustments (Gottlieb, Stoeckel, & Caro, 2009), and that exposure to caregiving in some cases increases an individual's likelihood of purchasing LTC insurance.

Research Agenda

Building on existing research, we aimed to test the hypothesis that the experience of caring for a parent with chronic illnesses and/or who is declining in health enables an adult child more accurately to anticipate potential needs associated with future stages of his or her own life. We hypothesize that, compared to non-caregivers, adult child caregivers are more likely to plan for their own future LTC needs, indicated by a wide range of LTC planning measures, including whether they expect to need LTC, where they will receive LTC and from whom, how they will pay for it, and whether they have purchased LTC insurance.

METHODS

Data Collection

Data came from the 2007 Connecticut Long-Term Care Needs Assessment, a representative survey of 4,700 Connecticut residents (Robison, Fortinsky, Kleppinger, Shugrue & Porter, 2009). Data were collected via a self-administered, written survey mailed directly to a stratified random sample of 10,500 Connecticut residents. The random sample included 5,250 older adults (over the age of 61) and 5,250 baby boomers (born between the years 1946 and 1964). A total of 2,761 surveys were received from the randomized mailing: 1,607 from older adults and 1,154 from baby boomers. Adjusting for ineligibility (deaths and moves out of state), response rates were 34% for older adults and 24% for baby boomers and are well within the acceptable mail survey range of 10 to 60% (Harbaugh, 2002). Statewide dissemination of the survey resulted in an additional 1,939 respondents. Randomly sampled and statewide surveys were combined after analyses confirmed comparability between the two respondent groups. Survey respondent demographics were also compared to 2005 U.S. Census data for Connecticut residents in corresponding age groups to assess generalizability of the findings to the Connecticut population as a whole. Survey respondents had higher levels of education and included slightly fewer African American or Black respondents, but did not differ from their Connecticut counterparts on gender, Hispanic ethnicity, or income. Further details of the survey methodology are described elsewhere (Robison et al., 2009).

A total of 4,700 surveys were completed. All baby boomers who responded to the survey (n = 1,892) were stratified based on their caregiving status. The analytic sample for the current study included baby boomers who were caregivers to parents and who were not currently using any LTC services for themselves (n = 353), and non-caregiving baby boomers who also were not currently using LTC services (n = 1,242). The small number of respondents who were currently using LTC services (n = 172) were excluded because they already had care needs due to one or more disabilities, which could affect their planning regarding future needs. The sample also excluded 125 baby boomers caring for non-parents (e.g., spouses, children with disabilities, or friends).

Measures

Caregiver status was the primary independent variable of interest. Adult child caregivers were identified by their answers to the following two questions: “Do you provide unpaid care and assistance for a relative or friend who lives in Connecticut because of old age, disabilities or other problems?” and “Think of the person you provide the greatest amount of care for. How is this person related to you?” Respondents answering “Yes” to the first question, and “parent” or “parent-in-law” to the second question, were considered to be adult child caregivers.

The dependent variables included survey items embedded within two core domains: 1) anticipating LTC needs and 2) financial planning. For the first domain, respondents were asked “Do you think you will ever need long-term care, including care at home, assisted living, or nursing home care?” Respondents endorsed six specific services they would use as they grow older: home maintenance and handyman services; homemaker, shopping, & cleaning; home health care; transportation; home delivered meals; and lawn care/snow removal. A summary variable tallies how many of these services respondents expected to use, ranging from 0–6 (Chronbach's alpha = .77). Additional questions included “Who do you think will provide this long-term care in the future?” with four independent categories, and “As you grow older, how likely are you to move to, or live in, each of the following arrangements?” with ten arrangements and response categories of very or somewhat likely versus not at all likely to have the arrangement. To assess financial planning regarding possible LTC needs, respondents were asked, “How do you plan to pay for any long-term care services?” where they could endorse each of nine items, and whether they had already purchased long-term care insurance.

A number of other indicators were included in the analyses as control variables. Demographic variables included age in years, gender, race, marital status, income and education. The income and education variables were divided into three categories to facilitate interpretation of regression results. The low income category (<$15,000 per year) captures respondents who would most likely qualify for Medicaid coverage of long term care services, contrasted to the highest income group (>$150,000) and those in between. Indication of any impairment on either activities of daily living (ADLs) (Katz, Ford, Moskowitz, Jackson, & Jaffee, 1963) or instrumental activities of daily living (IADLs) (Lawton & Brody, 1969) constituted impaired functional status. Data were missing for less than 10% of respondents on the income and expected living arrangement measures and less than 5% of respondents on all other measures.

Statistical Analyses

Pearson chi square tests or independent sample t-tests identified differences between caregivers and non-caregivers on descriptive characteristics and on all LTC planning indicators. Outcome variables that were significantly related ($p<0.05$) to caregiver status in the bivariate analyses were further analyzed using regression models. We constructed separate linear and logistic regression models for each dependent variable to assess whether caregiving status independently related to one or more outcomes of interest. Covariates in the models, identified in the literature as relevant to LTC planning, included age, gender, race, marital status, functional status, income, and education. A linear regression was tested for the continuous variable indicating the number of LTC services respondents would use as they age, and logistic regression models were constructed for all remaining dependent variables. Participants with missing data were removed listwise from each analysis. SPSS 16.0 was used for all statistical analyses.

RESULTS

Participants' demographic and functional status characteristics appear in Table 1. Overall, participants were mostly white and well educated. Caregivers were significantly more likely to be female and white than non-caregivers. The two groups did not differ on age, marital status, education, income, or functional status.

Table 2 shows the results of the bivariate analyses for all dependent variables and Tables 3–5 show the final linear and logistic regressions for the dependent variables that differed significantly by caregiving status at the bivariate level.

Bivariate Analyses

Anticipating LTC Needs—Caregivers were significantly more likely to anticipate needing a greater number of services in the future and to expect that a home care agency would provide future LTC services, but less likely to expect to receive care in a nursing home, compared to their non-caregiver peers (Table 2). About two thirds of both groups expected family and friends to provide any care they would need.

Caregivers were more likely to indicate that they would remain in their own homes with home health care or homemaker services at home. Caregivers' and non-caregivers' expected living arrangements did not differ otherwise. A large majority of both groups (over 80%) expected to remain in their homes, while closer to a third of each group expected to live in a nursing home or in an adult child's home.

Financial Planning—Caregivers had more concrete plans for how they would pay for LTC than non-caregivers, endorsing reverse mortgages, private health insurance, Medicare and Medicaid more frequently (Table 2). Non-caregivers were more likely to endorse not having any plans or did not know how they would pay for LTC. Just under a quarter of both groups expected to use LTC insurance, though only 12% of each group reported having already purchased this type of insurance.

Linear and Logistic Regression Analyses

Caregiver status and the other covariates explained 8% of the variance for the number of LTC services expected in the linear regression model. Logistic regression models tested three indicators of anticipating LTC needs and five measures of financial planning. Each of the logistic regression models was statistically significant ($p < 0.01$) with respect to model fit (with the exception of nursing home staff and Medicare), indicating that these factors reliably predict the dependent variables.

Anticipating LTC Needs—Table 3 shows the linear regression model predicting the number of LTC services respondents indicated they were likely to use in the future. Caregivers endorsed significantly more services than non-caregivers; older and female respondents also selected more services than their counterparts, whereas those with a high school education selected fewer services than college-educated participants.

Caregivers were significantly more likely to respond that a home care agency would provide future long-term care (OR = 1.45), in the adjusted logistic regression model (Table 4). Female, white, and post-graduate educated respondents were also more likely to expect to use a home care agency.

The association between caregiver status and expecting to receive care from nursing home staff identified in the bivariate analyses was no longer significant after controlling for the covariates. No other covariate predicted this outcome.

When considering the combination of the specific living arrangement of staying in one's home *and* using home health care, and adjusting for covariates, using home health care no longer differed significantly by caregiver status. Older, female, and married respondents were significantly more likely than their respective counterparts to endorse this living arrangement.

Financial Planning—In response to the question "How do you plan to pay for any LTC services?" all five of the models demonstrated significant differences between caregivers and non-caregivers. Caregivers were less likely to report that they had no plans or did not know (OR = 0.67). Caregivers were more likely to anticipate using reverse mortgages (OR = 1.50), private health insurance (OR = 1.46), Medicare (OR = 1.31), and Medicaid (OR = 1.58). The only covariates consistently related to financing mechanisms were income and education, with lower education and income related to no plans, lower income related to using Medicaid, higher education related to using reverse mortgages, and higher income related to using private health insurance.

DISCUSSION

The data in this study suggest that baby boomer adult child caregivers have a heightened awareness regarding certain future LTC needs and the costs associated with those needs. However, they are not more likely to anticipate living in a nursing facility, or to take concrete planning actions such as obtaining LTC insurance.

Anticipating LTC Needs

Caregiving exposure was significantly associated with anticipating the need for home services, and anticipating a greater number of services. After adjusting for demographic and other factors, caregiving exposure remained significantly associated with anticipating the need for home health care for personal care.

Caregivers were significantly more likely to anticipate that a home care agency would provide their care. There was also a trend in the expected direction that caregivers were more likely than non-caregivers to anticipate staying in their own home with home health care or homemaker services. These findings indicate that caregivers are more aware of services provided by home care agencies and other home services that help people to remain in their own homes as they become functionally dependent. Caregiving exposure gives some adult children a meaningful introduction to home care agencies, and makes them more knowledgeable about their services.

Prior research in the area of LTC insurance indicates that individuals with prior experiences with LTC are more likely to enroll in LTC insurance plans (Stum, 2008). Interestingly, in our study, caregiving exposure was not associated with actually having LTC insurance. Why is it that aging baby boomer caregivers are not taking actual steps, such as purchasing LTC insurance, to prepare for their own future LTC needs? It is evident from our data that adult child caregivers have a heightened awareness of potential future needs, but they seem no more likely to commit to action than their non-caregiver peers. Some baby boomers may believe they are too young to purchase LTC insurance, but it should be a consideration as they address their own LTC planning. It is important to identify effective policy initiatives to make this a more reasonable choice for this age group.

Financial Planning

Caregivers were significantly more likely to have a plan to pay for future anticipated services, and to identify private health insurance, Medicare, and Medicaid as programs that

would provide LTC services. These findings suggest that caregivers in this study are more aware than noncaregivers of the costs associated with LTC and have given more thought about multiple potential sources of paying for LTC services. Of note, some of the sources of paying for services would not actually provide coverage for LTC (e.g., Medicare or private health insurance). Further, the relatively high income of this sample would most likely preclude many of them from access to Medicaid, at least initially. These data further suggest that caregivers recognize the importance of having some kind of plan or some kind of insurance coverage to pay for LTC, but they may not have the understanding of the complexities and realities of financing LTC any more than their non-caregiver counterparts.

Limitations

Limitations of these data include a lack of ethnic diversity. Participants were mostly white and well-educated, though the number of Hispanic respondents was representative of the Connecticut population. The independent variable was also limited in that caregiver status was self-defined, we were not able to capture former caregivers, and the survey did not assess the intensity or duration of caregiving status, which likely affects the impact of the exposure on study outcomes. Future work is needed to develop consensus around measures of caregiving experience more accurately and adequately to measure this exposure. Unfortunately, we had no data about what adult child caregivers learned specifically from their experiences as caregivers. Furthermore, the survey was designed only to capture those adult children providing care for parents who lived in Connecticut. As a result, we did not identify adult children providing long distance care to a parent living in another state or country.

Despite these limitations, these data are meaningful and can help us to gain a better understanding of the profound impacts of informal caregiving, specifically as it relates to anticipation of future LTC needs. Furthermore, because the non-caregiver group included people who may have been caregivers in the past, finding a significant effect is more challenging. The effects that were found, therefore, are likely real and perhaps underestimate the “true” effects of the exposure.

Policy Implications

What should people in their 50s and 60s be doing to better prepare themselves for their own potential future LTC needs? And how can we encourage them to take those steps? The finding that very few relatively high-income individuals have or plan to purchase LTC insurance has important implications.

The LTC insurance literature describes several factors responsible for increasing the market for LTC insurance, including greater consumer education and public policy (Cohen, 2003). A few policy interventions have been established, including tax incentives for both employers and employees to encourage participation in LTC insurance programs. For example, LTC pre-tax savings programs exist for some individuals who work in large companies. For employers, contributions for the purchase of LTC insurance for employees are tax deductible. These incentives are described as important market drivers towards increasing the growth in the market of LTC insurance (Cohen, 2003).

More recently, the CLASS (Community Living Assistance Services and Supports) Act has been enacted as part of the Patient Protection and Affordable Care Act of 2010. It is a public, voluntary insurance program that will help to cover the costs of LTC needs in a variety of ways. It will provide beneficiaries with a daily amount of money, which can be used to cover the costs of LTC services. It remains to be seen how, or even if, the CLASS Act will be implemented and how it will interface with existing LTC insurance products.

We know from prior research that individuals' decisions regarding planning and paying for LTC are based not only on financial incentives, but also on behavioral factors, as well as family structures (Curry et al., 2009). We also know that there is much more to LTC planning than purchasing LTC insurance or financial planning alone. Policies designed specifically to address adult child caregivers with prior exposure and heightened awareness of LTC needs and the financial implications associated with those needs may have a greater chance of success in encouraging this cohort to engage in more proactive LTC planning. Our finding that caregivers were more likely to indicate that private health insurance or Medicare would pay for their future LTC needs demonstrates remaining misunderstandings and misconceptions in this otherwise more aware group of people. Educational programs targeted at current caregivers and those who have recently completed caregiving for aging parents could guide them to take away valuable lessons from their experiences as caregivers that could in turn help them anticipate and plan for their own futures.

CONCLUSION

As caregivers age, the vast majority will require some degree of LTC services (Friedland, 2004). From a population perspective, it is vitally important for people to anticipate and plan for their futures, including their own aging. Our data strongly suggest that caregiving exposure is associated with a heightened awareness of certain future LTC needs. It would be interesting and important to further characterize this awareness and to explore how to translate that awareness into action in future studies. What is it specifically about the exposure that would make a caregiver not only more aware but also more likely to plan for him/herself? More work in this area, specifically addressing this question, is needed.

Being more aware of the possibilities of the future, from their first-hand experience with their parents, should be enough to give caregivers an advantage when the time comes for them to address their own needs. The heightened awareness should increase the “behavioral intention,” which, with the right policy and educational interventions in place, might lead them to choose more proactive planning.

Societal costs associated with the provision of LTC needs for our aging population are daunting. Helping and encouraging people to anticipate these needs and to plan for their futures that may include disability and dependence could help the health care system to shoulder the burden of the aging demographic. Creating policy designed to address the needs of the baby boomers, capitalizing on their common experience as caregivers, is one potentially meaningful way to address this issue.

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REFERENCES

Ajzen A. The theory of planned behavior. Organizational Behavior and Human Decision Processes. 1991; 50:179–211.

Caro FG, Porell FW, Kwan N. Expectancies and ownership of long-term care insurance policies among married older people. Journal of Applied Gerontology. 2011 online DOI: 10.1177/0733464810376374.

Cohen MA. Private long-term care insurance: a look ahead. Journal of Aging and Health. 2003; 15(1): 74–98. [PubMed: 12611409]

Curry LA, Robison J, Shugrue N, Keenan P, Kapp MB. Individual decision making in the non-purchase of long-term care insurance. The Gerontologist. 2009; 49:560–569. [PubMed: 19491360]

Friedland, RB. [Accessed August 2009] Caregivers and long-term care needs in the 21st century: Will public policy meet the challenge?. 2004. Available at http://ltc.georgetown.edu/pdfs/caregiversfriedland.pdf.

Gottlieb AS, Stoeckel KJ, Caro FG. Residential adjustment of elders: Learning from experience with parents and peers. Journal of Housing for the Elderly. 2009; 23(3):149–165.

Greenwald, M. [Accessed August 2009] These Four Walls… Americans 45+ talk about home and community. 2003. Available at http://research.aarp.org.

Harbaugh R. Proven lessons for generating good mail survey response rates. Medical Marketing and Media. 2002; 37:70–75.

Johnson RW, Toohey D, Wiener JM. Meeting the long-term care needs of the baby boomers: How changing families will affect paid helpers and institutions. The Retirement Project Discussion Paper Series, The Urban Institute. 2007:1–61.

Katz S, Ford AB, Moskowitz RW, Jackson BA, Jaffee MW. Studies of illness in the aged: The index of ADL, a standardized measure of biological and psychological function. Journal of the American Medical Association. 1963; 185:14–19. [PubMed: 13993289]

Lawton MP, Brody EM. Assessment of older people: Self-maintaining and instrumental activities of daily living. Gerontologist. 1969; 9:179–186. [PubMed: 5349366]

Libert, A. [Accessed August 2009] Elderly parents and adult children as caregivers. Highlights: An ERIC/CAPS digest. 1986. Available at http://ericdigests.org/pre-925/adult.htm.

McGrew, KB. Impossible selves? Challenges and strategies for encouraging individual long term care planning. Scripps Gerontology Center; Oxford, OH: 2000.

Ory MG, Hoffman RR III, Yee JL, Tennstedt S, Schulz R. Prevalence and impact of caregiving: A detailed comparison between dementia and non-dementia caregivers. The Gerontologist. 1999; 39:177–185. [PubMed: 10224714]

Pandya, S. [Accessed August 2009] Caregiving in the United States. 2005. Available at http://www.aarp.org/research/ppi/ltc/care/articles/fs111_caregiving.html.

Robison J, Fortinsky R, Kleppinger A, Shugrue N, Porter M. A broader view of family caregiving: Effects of caregiving and caregiver conditions on depressive symptoms, health, work, and social isolation. The Journals of Gerontology Series B: Psychological Sciences and Social Sciences. 2009 DOI: 10.1093/geronb/gbp015.

San Antonio P, Rubinstein RL. Long-term planning as a cultural system. Journal of Aging and Social Policy. 2004; 16(2):35–48. [PubMed: 15148043]

Schaber PL, Stum MS. Factors impacting group long-term care insurance enrollment decisions. Journal of Family and Economic Issues. 2007; 28:189–205.

Stucki, B. Long-term care insurance at work: The retirement link and employee perspectives. American Council of Life Insurers; Washington, DC: 2001.

Stum M. Financing long-term care: Examining decision outcomes and systemic influences from the perspective of family members. Journal of Family and Economic Issues. 2001; 22(1):25–53.

Stum M. Group long-term care insurance: Decision-making factors and implications for financing long-term care. Journal of Aging and Social Policy. 2008; 20(2):165–181. [PubMed: 18788363]

Su Y. Looking beyond retirement: Patterns and predictors of formal end-of-life planning among retirement age individuals. Journal of Family and Economic Issues. 2008; 29:654–673.

Wolff JL, Kasper JD. Caregivers of frail elders: Updating a national profile. The Gerontologist. 2006; 46:344–356. [PubMed: 16731873]

TABLE 1

Descriptive Characteristics of Caregivers and Non-Caregivers

	Caregiver n = 353[a] %	Non-Caregiver n = 1242 %	P-value
Mean age (range)	52 (42–60)	52 (41–60)	0.629
Female	76	63	<0.001
Married	73	72	0.696
Race			0.015
White	97	93	
Non-white	3	7	
Education			0.645
High school or less	11	13	
Any college	57	55	
Post graduate degree	32	32	
Annual income			0.202
Low < $15,000	14	17	
Medium $15,000 to $149,999	31	26	
High >= $150,000	55	57	
Functional status			0.137
Impaired	10	13	
Not Impaired	10	13	

[a]Ns for each indicator vary minimally due to item-specific missing data; exact ns available from the authors.

TABLE 2

Bivariate Analyses between Caregiving and LTC Plans

	1	2
	Caregiver n = 353[a] %	**Non-Caregiver n = 1242 %**
ANTICIPATING LTC NEEDS		
Will you ever need long-term care, including care at home, assisted living, or nursing home care?		
Yes	80	75
# of services you would use as you grow older	3.8 ± 1.8	3.3 ± 1.9 *
Who do you think will provide this long-term care in the future?		
Family or friend	67	64
Home care agency	55	44 *
Assisted living staff	38	33
Nursing home staff	21	26 *
As you grow older, how likely are you to move to, or live in, each of the following arrangements?		
Remain in your home with some modifications	82	79
Remain in your home with home health care or homemaker services at home	85	80 *
Sell your house and move to an apt or condo	63	68
Live in senior housing	44	44
Live in a retirement community	66	67
Live in an assisted living facility	60	60
Live in a nursing home	30	29
Live in a continuing care retirement community	63	66
Live with my adult child in his/her home	36	37
FINANCIAL PLANNING		
How do you plan to pay for any long-term care services?		
No plans or do not know	27	35 *
My family will pay for it	1	2
Savings or investments	49	44
Sell my home	26	25
Reverse mortgage	18	11 *
LTC insurance	24	23
Private health insurance	24	18 *
Medicare	39	32 *
Medicaid	17	11 *
Do you currently have long-term care insurance?		
Yes	12	12

[*] associated p value <0.05

[a] Ns for each indicator vary minimally due to item-specific missing data; exact ns available from the authors.

TABLE 3

Linear Regression Model Predicting the Number of Services Respondents Expect to Use

Variables Entered	ß	SE
Caregiver	0.41*	0.12
Mean age (range)	0.03*	0.01
Female	0.76*	0.11
Married	0.06	0.11
White	0.42	0.21
Education high school vs. college	−0.57*	0.15
Education post graduate vs. college	0.33	0.11
Income medium vs. high	−0.19	0.12
Income low vs. high	−0.03	0.15
Impaired functional status	0.18	0.15

Adjusted R^2 = 0.08; F(df,10) = 12.2, p <.001

*associated p value <0.05

TABLE 4

Logistic Regression Models Predicting Future LTC Arrangements and Financial Plans

Predictors	Home care agency	Nursing home staff	Stay home with HHA	No plans or don't know	Reverse Mortgage	Private health insur.	Medicare	Medicaid
	Odds ratio (95% CI)	Odds ratio (95% CI)	Odds ratio (95% CI)	Odds ratio (95% CI)	Odds ratio (95% CI)	Odds ratio (95% CI)	Odds ratio (95% CI)	Odds ratio (95% CI)
Caregiver	1.45* (1.11 –1.89)	1.19 (0.88 –1.60)	1.13 (0.79 –1.61)	0.67* (0.50 –0.92)	1.50* (1.05 –2.15)	1.46* (1.07 –1.97)	1.31* (1.01 –1.71)	1.58* (1.10 –2.27)
Mean age (range)	1.02 (0.99–1.04)	0.99 (0.97 –1.03)	1.04* (1.01 –1.07)	0.98 (0.95 –1.00)	0.99 (0.96 –1.02)	1.01 (0.98 –1.04)	1.03* (1.01 –1.05)	1.03 (1.00 –1.06)
Female	1.64* (1.29 –2.07)	1.17 (0.88 –1.54)	1.68* (1.26 –2.25)	0.90 (0.70 –1.16)	1.29 (0.91 –1.83)	1.24 (0.93 –1.66)	1.11 (0.88 –1.42)	1.05 (0.74 –1.49)
Married	1.01 (0.79 –1.31)	1.06 (0.79 –1.43)	1.47* (1.07 –2.02)	0.98 (0.74 –1.29)	1.01 (0.74 –1.57)	1.14 (0.83 –1.56)	1.00 (0.77 –1.30)	0.93 (0.65 –1.33)
White	1.66* (1.01 –2.72)	1.51 (0.80 –2.84)	0.93 (0.50 –1.71)	0.97 (0.59 –1.60)	1.58 (0.59 –2.94)	1.01 (0.55 –1.85)	0.95 (0.58 –1.54)	0.89 (0.46 –1.70)
high school vs. college	0.60* (0.42 –0.86)	0.64 (0.41 –1.00)	0.94 (0.61 –1.45)	1.91* (1.34 –2.70)	0.57* (0.15 –0.72)	0.65 (0.41 –1.04)	0.81 (0.56 –1.15)	0.89 (0.55 –1.45)
post-grad vs. college	1.84* (1.44 –2.35)	1.05 (0.79 –1.39)	1.16 (0.85 –1.60)	0.58* (0.43 –0.77)	1.74* (1.20 –2.33)	1.17 (0.87 –1.56)	0.88 (0.69 –1.14)	0.83 (0.57 –1.20)
medium vs. high income	0.92 (0.71 –1.19)	1.17 (0.86 –1.57)	1.30 (0.92 –1.83)	2.17* (1.64 –2.87)	0.93 (0.67 –1.43)	1.03 (0.76 –1.40)	1.01 (0.77 –1.32)	1.57* (1.08 –2.28)
low vs. high income	0.77 (0.55 –1.08)	0.97 (0.65 –1.45)	1.21 (0.79 –1.85)	3.79* (2.69 –5.35)	0.77 (0.41 –1.23)	0.60* (0.38 –0.94)	0.86 (0.61 –1.22)	1.76* (1.11 –2.78)
Impaired functioning	1.21 (0.86 –1.70)	0.77 (0.50 –1.18)	1.13 (0.73 –1.75)	0.84 (0.58 –1.22)	1.19 (0.59 –1.68)	1.20 (0.79 –1.81)	1.47* (1.05 –2.06)	1.28 (0.81 –2.03)
Model Sum.								
Chi square (df, P value)	86.57 (10, 0.000)	13.93 (10, 0.18)	27.12 (10, 0.002)	155.28 (10, .000)	40.24 (10, .000)	25.35 (10, .005)	17.45 (10, .065)	22.54 (10, .013)
Log likelihood	1832	1447	1234	1568	1034	1370	1776	1029
Nagelkerke	0.08	0.02	0.03	0.15	0.05	0.03	0.02	0.03

* associated p-value <.05