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Who Wants Long-Term Care Insurance? A Stated Preference Survey of Attitudes, Beliefs, and Characteristics

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Abstract

Approximately half of people turning 65 years between 2015 and 2019 are projected to need long-term support and services. Yet the long-term care insurance (LTCI) market is depressed, with only 7.4 million people owning policies. The objective of this study was to provide an analysis of potential LTCI purchasers. We investigate (1) who wants to purchase LTCI, (2) what are the attitudes and beliefs among those who have a preference for LTCI, and (3) who would prefer a law mandating the purchase of LTCI and how that view relates to willingness to purchase LTC. We combine a discrete choice experiment with a survey on attitudes toward LTCI. We estimate odds ratio for choosing a plan based on sociodemographic characteristics, attitudes, and beliefs. Our sample consists of a population of 12 936 people who completed an Internet panel survey. Female respondents were substantially less likely to choose an LTCI plan (OR = 0.74). Income and assets over $100 000 were strong predictors of LTCI uptake (OR = 1.27 and OR = 1.48, respectively). Having adult children live close by was not associated with preference for LTCI. People who support almost any government intervention are more likely to purchase private insurance (OR = 1.12-1.33). Minorities expressed a preference for mandatory enrollment relative to whites. There is a relationship between attitudes toward long-term care financing reform and preference for LTCI, but it is not limited to supporters of private sector initiatives. While support for mandatory LTCI is low overall, it is strongest among racial/ethnic minorities and people with health problems, who potentially have the most to gain.

Keywords

long-term care, insurance, discrete choice experiment, economics, health care financing

Introduction

Approximately half of all people turning 65 years between 2015 and 2019 are projected to need long-term support and services (LTSS).[1] In 2015, a year-long stay in a residential care facility may cost upward of $43 200 and at least $80 000 for a nursing home, representing a significant and uncertain financial outlay for older people.[2] Without the ability to pay for those resources, many elderly must rely on Medicaid, a means-tested program, family members, or go without needed care.[1]

One strategy to mitigate the risk associated with disability and need for LTSS is private long-term care insurance (LTCI). However, the market for LTCI is underdeveloped and, in recent years, struggling. Private LTCI providers have often inaccurately priced LTCI plans, resulting in substantial and unexpected premiums increases.[3] The result is depressed private LTCI ownership: In 2012, only 7.4 million people owned private LTCI.[4] Long-run estimates indicate that one-third of LTCI policyholders lapse coverage, leading to even further reductions in the LTCI market.[5]

This market evidence suggests that a better understanding of the LTCI purchasing decision is warranted. Current surveys indicate, among those 50 years and older, LTCI buyers tend to be younger, more likely to be married, less educated, and wealthier than nonbuyers.[6] Higher proportions of non-Hispanic whites purchase LTCI versus Hispanics and African Americans.[7,8]

Attitudes and beliefs also play a major role in purchasing LTCI. For example, people who do not trust private insurers are less likely to purchase LTCI.[9] Moreover, being a "planner" or one who believes "it is important to plan now for the possibility

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of needing long-care services" is positively associated with LTCI purchase.[6] Attitudes toward financing LTCI also matter: 19% of buyers versus 31% of nonbuyers agree that "it is the federal governments' responsibility to pay for the long-term care needs of all people."[6] Evidence suggests that caring for a parent may increase the likelihood of purchasing LTCI by 0.8 percentage points.[10]

In this study, we conduct an analysis of potential LTCI purchasers. We evaluated how responses to a series of questions about the role of the government, financing reform options, and trust in government and private insurers affect who says they want to purchase LTCI and who would prefer a law mandating the purchase of LTCI. As part of these analyses, we examine how sociodemographic characteristics, such as age, sex, race, income, education, and assets, affect the LTCI purchasing decision. We extend our analyses further to include preferences regarding risk and insurance products, availability of informal care, and whether potential purchasers have provided LTSS for a family member or friend. Answering these questions may provide further insight for policymakers looking to address deficiencies in the LTCI market.

We use an innovative methodological approach to investigate these questions. In this study, we combine a discrete choice experiment (DCE) with a survey on attitudes toward LTSS and LTCI. DCEs are a quantitative technique used for eliciting preferences by asking individuals to make tradeoffs between a series of alternative products or public policies with different characteristics; in this case, LTCI policies (eg, length of coverage, deductible levels, etc).

What distinguishes our study from other examinations of LTC ownership is that, in our analysis of the DCE, we are able to control for the product attributes viewed by the participants. Because LTCI policies are sold at an individual basis, products tend to be complex and heterogeneous with attributes that lack consistency across consumers. Certain LTCI characteristics have a wide distribution across policies: In 2012, 11% of purchased policies had a benefit period of less than 3 years, 31% had one of 3 years, 27% had one of 4 years, and 31% had 5 or more years.[11] Many companies recently began charging much higher LTCI premiums for women.[12] These product differences may not necessarily be common knowledge to all as some companies will "literally charge more than double for virtually the same level of benefits."[12] Therefore, studying the characteristics of buyers and nonbuyers may be problematic without a clear understanding of what kind of policies were available at the time. Our study mitigates this concern by presenting LTCI choices to the respondent and controlling for product characteristics when estimating the odds of purchase. To our knowledge, no other published study has examined the LTCI purchase decision by using this type of study design.

Methods

Our analysis uses the 2014 Survey of Long-term Care Awareness and Planning, which was sponsored by the Office of the Assistant Secretary for Planning and Evaluation, US Department of Health and Human Services.

Survey

The full survey contained sections on sociodemographics, financial status, and knowledge and experience with LTSS, their attitudes toward LTSS reform, and their preferences for LTCI. The stated preference survey, known as a DCE, assessed the interaction between personal characteristics, attitudes, and behaviors with the stated likelihood of purchasing LTCI. These interactions allow us to identify characteristics and beliefs of individuals who may be likely to purchase LTCI when faced with a variety of insurance policy characteristics.

DCEs are used widely to measure preferences and anticipated choice behavior in marketing, transportation, environmental economics, and health care.[13] The premise of DCEs is that products such as LTCIs can be characterized by a series of "attributes" (product characteristics) and people evaluate the overall desirability of the product based on these attributes.[13] Each attribute is assigned 2 to 4 levels (eg, monthly premium costs of $30, $100, $225, $400) to allow for a range for selection preferences. Respondents were asked a series of questions comparing attributes of 2 hypothetical options and to select which of the option they would purchase, Option A or Option B, or neither. Through these series of tradeoffs, we generated predictions of people's preferences for LTCI.

We broke the LTCI product into 7 attributes: (1) a daily benefit, (2) the benefit period, (3) the deductible period, (4) health requirements, (5) type of insurer, (6) monthly premium cost, and (7) voluntary or mandatory enrollment. The specific attributes and their levels used in the DCE are presented in Table 1. We asked each respondent to answer 2 series of questions: The first set contained 5 sets of comparisons of LTCI products and the second contained 3 sets of comparisons of LTCI products. The 2 sets differed on the number of attributes listed within each comparison. The first set included the first 6 attributes, while the second set included those 6 plus whether the enrollment was within a mandatory or voluntary system. Figure 1 shows an example DCE comparison screen.

The pattern of stated choices in the DCE was analyzed using standard discrete choice econometric techniques.[14] A more detailed description of the survey and statistical analysis is available in our supplemental appendix. All models were conducted in Stata 14 (Stata Corp, College Station, Texas).

Sociodemographics, Additional Variables, and Attitude Questions

Our descriptive analyses examined 7 different demographic variables: sex, age, marital status, race/ethnicity, income,

Table 1. Long-Term Care Insurance Attributes Included in the Discrete Choice Experiment.

Attribute or question	Description	Levels
Daily benefit	How much the policy pays per day toward your long-term care costs	$300, $175, $100, $50 per day
Benefit period	How long the policy provides benefits for	Lifetime, 5 years, 3 years, 1 year
Deductible period	When you first become disabled, how long before the insurance company will pay for services	None, 1 month, 3 months, 6 months
Health requirements	Whether or not the plan requires a medical exam and a doctor's signature for purchase	None; healthy and not disabled
Type of insurer	The sponsor or seller of the insurance plan	Private company; federal government
Monthly premium cost	The amount you pay each month in order to maintain coverage	$30, $100, $225, $400 per month
Type of enrollment (*DCE2 question only*)	Whether or not purchase of the insurance plan shown was required by law	Voluntary: no one must buy insurance; universal plan: everyone must buy this policy

Note. DCE = discrete choice experiment.

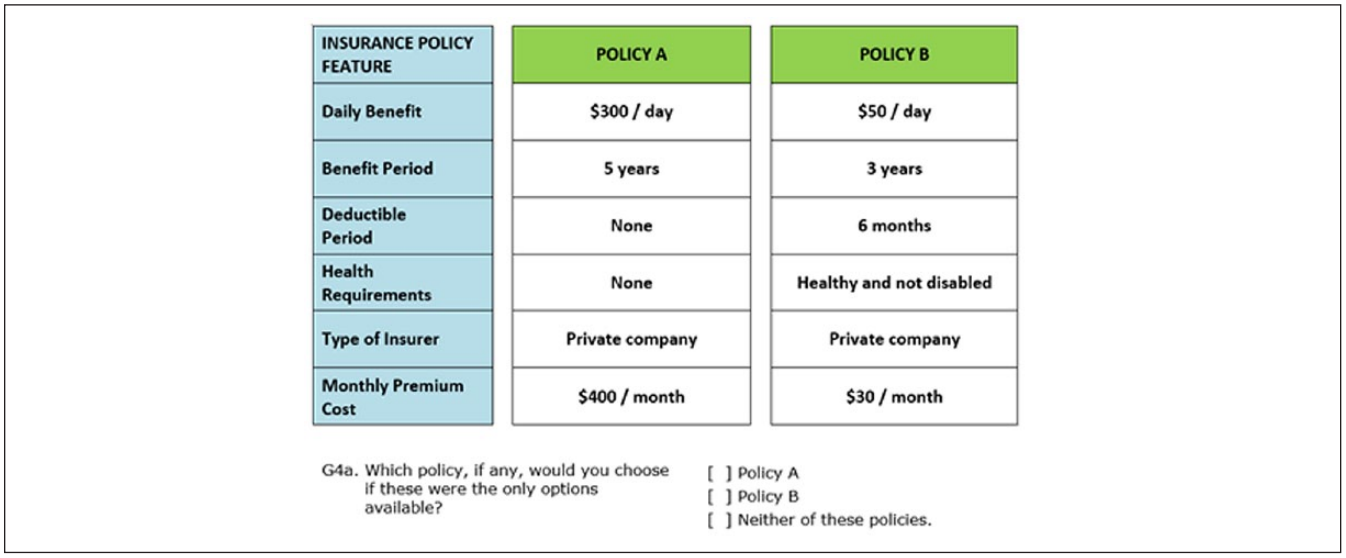

Figure 1. An example of a choice situation presented in the Survey of Long-term Care Awareness and Planning.

education, and assets, which have been shown to influence LTCI purchasing decisions.[6-9,15,16]

To better understand the LTCI purchasing decision, we investigated several additional factors which may influence consumers. First, we examined overall preference for level of risk and insurance products though the questions "are you generally willing to take risks?" (This was asked on a 1 to 10 scale, with 10 being the most willing to take risks. We define risk averse as identifying risk levels 1, 2, or 3.) and "do you have life or disability insurance?" We expected those with a distaste for risk and a preference for insurance products to more likely to purchase LTCI.

Next, we anticipated individuals engaged in planning for possible need for LTSS and thus would be more interested in LTCI. To study this possibility, we examined the question "have you had a detailed discussion with your spouse/partner or immediate family regarding the ways you would pay for long-term care?"

In addition, it has been theorized that having adult children who can take care of an elderly parent may substitute for LTCI.[17] Therefore, we asked respondents how many adult (age >18 years) children lived within 10 miles of them. Finally, we analyzed whether they were currently providing or have ever provided LTC for a family member or friend to assess if these experiences would encourage or discourage the intention to purchase LTCI.

The attitude questions we chose for analysis are grouped into 3 categories: who should pay for long-term care?; how should LTSS financing be reformed?; and who do you trust in the LTCI market? First, the issue of who finances LTC may persuade or dissuade people from purchasing LTCI. If people believe that others, such as their children or the government,

Table 2. The 2014 Survey of LTC Awareness and Planning.

Characteristic	Attribute	Survey respondents N = 12 936 (%)
Sex	Female	52.5
Age	65+	13.8
Marriage	Married	62.6
Working	Working for pay	59.8
Health	Fair/poor	16.2
Race/Ethnicity	White	71.4
	Black	10.8
	Hispanic	11.7
	Other	6.2
Household income	<$15 000	10.0
	$15 000–30 000	11.3
	$30 001–50 000	16.6
	$50 001–100 000	48.9
	>$100 000	13.2
Education	Less than high school	9.3
	High school	31.7
	Some college	27.9
	College degree	31.2
Assets	No or negative assets	19.5
	$1-$100 000	37.9
	>$100 000	40.5
Preferences for risk and insurance	Risk averse	22.6
	Insurance ownership	70.1
Planning for LTC	Conversation with spouse about paying for LTC	17.9
Availability of informal caregivers	Adult children that live within 10 miles	40.4
Experience providing LTSS	Ever provided LTC	27.1
	Currently providing LTC	6.9

Note. Weighted estimates presented. LTC = long-term care; LTSS = long-term support and services.

have the responsibility to finance their LTSS, they may be less likely to purchase LTCI. Second, we would anticipate those who believe the government should take action to promote the purchase of private LTCI, through tax incentives or via Individual Retirement Agreements (IRAs) and 401(k) plans, would be more likely to want LTCI. Those with beliefs that the government should intervene in the market to promote purchases such as by offering public coverage should have a negative impact on LTCI purchase. Third, people may also not trust private insurers to pay out claims may have a negative impact on LTCI uptake, while people who do not trust the government may be more likely to purchase private LTCI because they do not want to be dependent on government programs.

Results

Table 2 presents a comparison of the summary statistics of the sample. Respondents were about half female (52.5%), predominantly nonelderly (66.2% under age 65 years), working for pay (59.8%), and in good health (16.2% in fair/poor health). Our sample were generally well educated (31.2% had a college degree) and almost half had income between $50 000 and $100 000. A total of 40.5% of the sample has assets of more than $100 000. Fully 22.6% of the respondents were risk averse. A majority of the sample had disability or life insurance (70.1%). More than a quarter of the sample (27.1%) provided long-term care for a family member or friend and 40% reported that adult children lived within 10 miles.

Figure 2 plots the odds ratios (ORs) of choosing LTCI as a function of personal characteristics, relatively few of which were statistically significant. Choosing LTCI in the DCE means choosing 1 of the 2 options presented to the respondent (A or B) instead of choosing neither. Even though they are more likely to use LTSS over their lifetime, female respondents were substantially less likely to choose an LTCI plan (OR = 0.74) while those who worked for pay were much more likely to want LTCI than those who did not work (OR = 1.27). Purchase increased with the level of income and assets owned by the respondent; income and assets over $100 000 were strong predictors of LTCI uptake among the demographic interactions (OR = 1.27 and OR = 1.48, respectively). Surprisingly, the caregiving experience variables

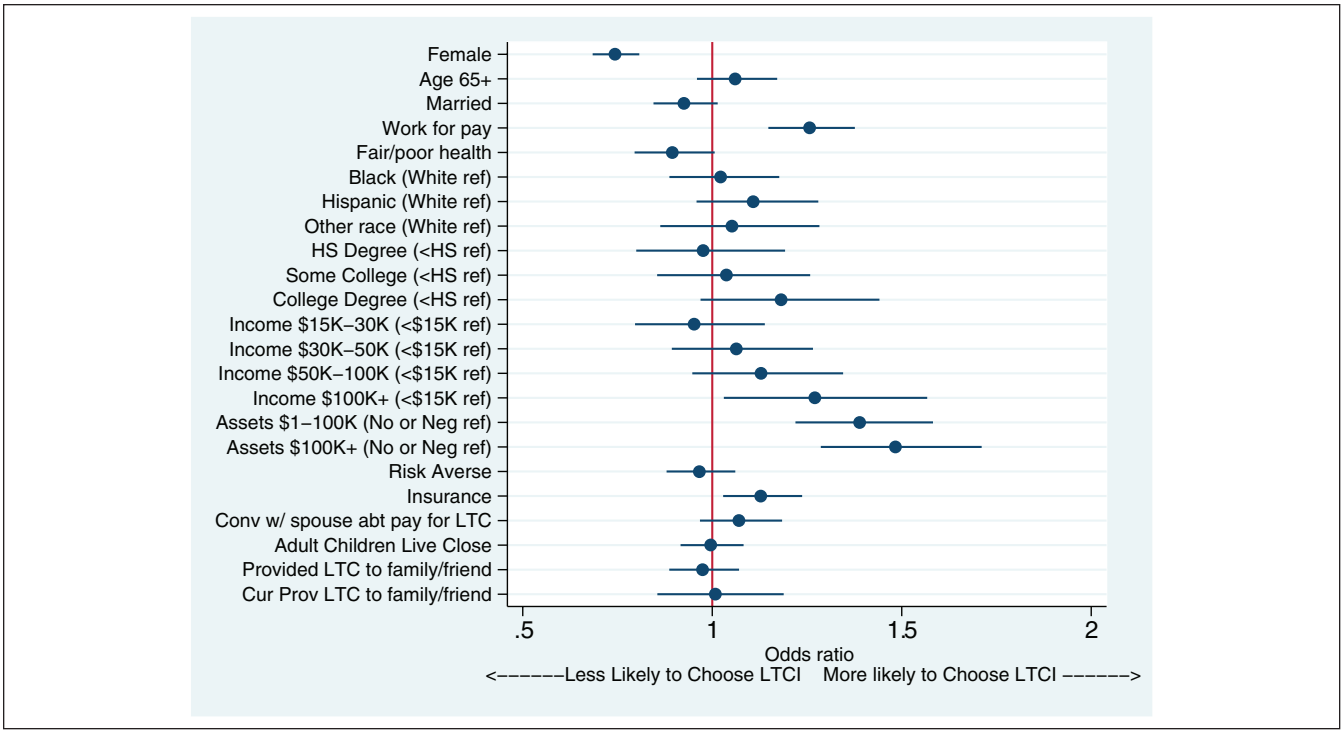

Figure 2. Odds of choosing LTCI plan based on personal characteristics.
Note. HS = high school; LTC = long-term care; LTCI = long-term care insurance.

Table 3. Odds of Choice of LTCI Plan Based on the Respondents' Attitudes and Beliefs.

Attribute-level parameter	Odds ratio (>1.00 more likely to purchase)
Who should pay for LTC?	
Responsibility of individuals to finance their LTC	1.42 (1.33-1.51)**
Responsibility of children/family to finance LTC	1.04 (0.96-1.13)
Responsibility of government to help pay for LTC	0.97 (0.90-1.03)
What should the government do?	
Government should promote purchase of private LTCI through lower taxes	1.23 (1.14-1.32)**
Government should allow LTCI purchase with IRAs and 401(k)s	1.33 (1.24-1.44)**
Government should require all people to purchase private LTCI	1.12 (1.00-1.25)**
Government should offer voluntary, public LTCI plan	1.25 (1.17-1.34)**
Government should establish mandatory, public LTC program	1.19 (1.08-1.32)**
Who do you trust in the LTCI market?	
I do not trust private insurers	0.84 (0.79-0.89)**
I do not trust government to run a LTCI program	0.95 (0.89-1.01)

Source. 2014 Survey of LTC Awareness and Planning.
Note. LTC = long-term care; LTCI = long-term care insurance.
**$P = .05$.

were associated with the choice to buy LTCI; in addition, availability of nearby children also was not a statistically significant predictor of insurance purchase. Ownership of other types of insurance was positively significantly statistically related to purchase (OR = 1.24).

Beliefs about financial responsibility for LTSS, the government's role in financing LTSS, and trust of insurers and government were important indicators of intent to purchase an LTCI policy (Table 3). Individuals who think that LTC is a personal responsibility are more likely to purchase LTCI (OR = 1.42), but people who think that it should be a government responsibility are not significantly less likely to purchase (OR = 0.97). People who support almost any government intervention, from promoting private insurance to mandating public insurance, are more likely to purchase private insurance (OR = 1.12-1.33). People who do not trust

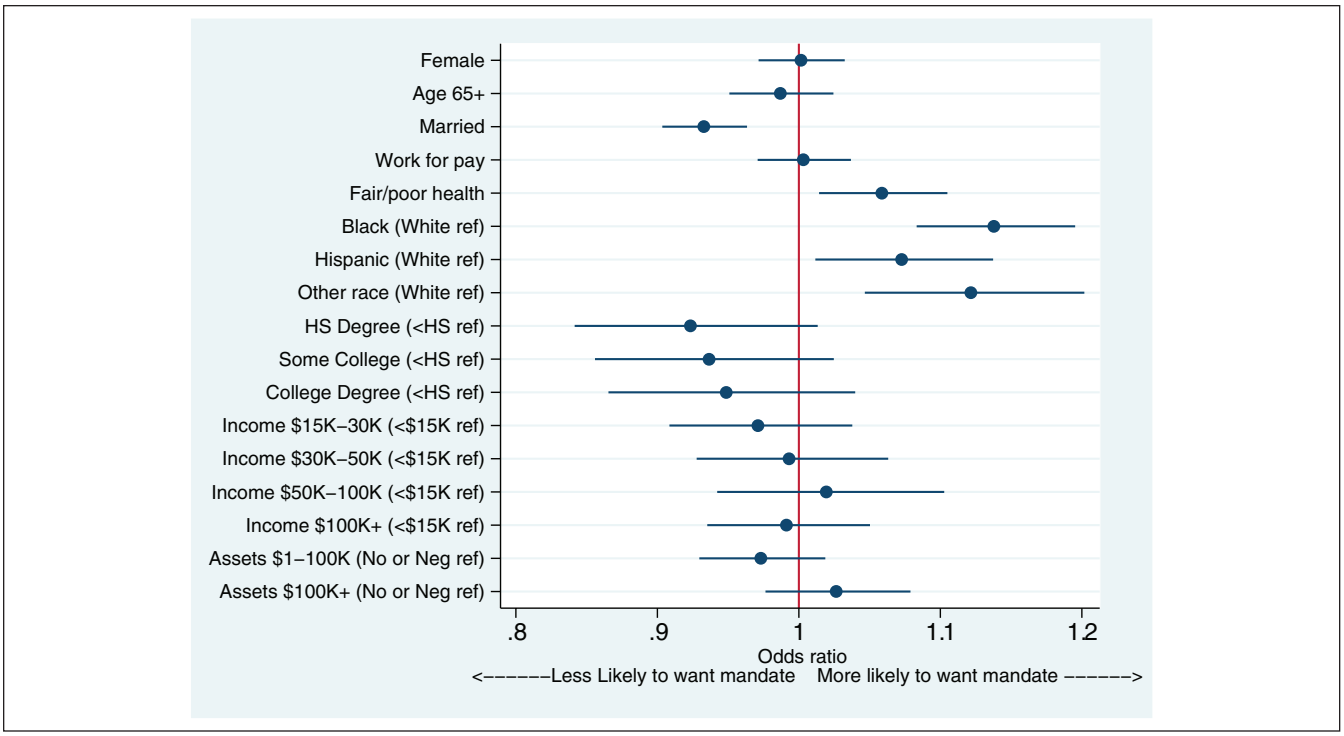

Figure 3. Odds of preferring a mandate for LTCI based on personal characteristics.
Note. HS = high school; LTCI = long-term care insurance.

private insurers are less likely to purchase LTCI (OR = 0.84), but people who do not trust the government are not significantly less likely to purchase insurance (OR = 0.95).

Figure 3 shows respondent preferences for the mandatory enrollment option. Minorities, including black, Hispanics, and "other" racial/ethnic groups, all had a large preference for mandatory enrollment relative to whites. People in fair/poor health were significantly more likely to choose mandatory enrollment (OR = 1.06). Married respondents, in contrast, were significantly less likely to choose mandatory enrollment (OR = 0.93) relative to unmarried respondents. No other variables were significant predictors of choice of the mandatory enrollment option.

Conclusion

This analysis investigated respondent preferences for LTCI and a mandate for LTCI coverage. We used a novel research approach, combining a survey on LTC awareness and planning with a large DCE on LTCI. Plan attributes naturally play an important role in whether people chose to purchase: Cost is the most frequently cited reason for nonpurchase, but cost varies greatly across policies.[6] Also, LTCI, unlike some other insurance products, is highly nonstandardized. Analyses examining LTCI ownership may be problematic because consumers may not know what products were available to purchase at the time of purchase.

Most of the individual characteristics we examined did not have a significant effect on stated preferences for LTCI. Marital status and age did not significantly predict a choice of LTCI. Although we expected women to be more likely than men to express a preference to purchase the LTCI policies offered because they are at greater risk of lifetime LTSS use, we did not find this to be the case.[18] Instead, we found that female respondents were substantially less likely to express a willingness to purchase LTCI. Despite the race/ethnicity disparities in LTCI ownership, we find no differences in stated preference for LTCI by race/ethnicity.[7]

We find no empirical support that the presence of children to provide informal care or providing LTC to a family member or friend serve as possible deterrents to the purchase of LTCI.[10,17,19] The informal care availability hypothesis has a long history in the LTCI literature, and yet evidence for it has been mixed: Mellor[20] and Brown et al[9] find no impact of having children close by, yet Cramer and Jensen[15] do. Even after controlling for a variety of family structure types, Van Houtven et al were unable to find an effect of availability of younger generations to provide LTC on LTCI ownership.[21] Our study adds to the growing literature which finds evidence for the hypothesis lacking.

Higher income and assets provide a greater ability to purchase often expensive LTCI policies and one of the functions of LTCI is to provide asset protection. Over the past 25 years, LTCI ownership has become dominated by the highest earners and the wealthy. In 1990, 21% of LTCI owners reported

over $50 000 in income; in 2010 it was 77%.[6] Roughly 4 of 5 new LTCI buyers have assets of over $100 000.[6] In our survey, individuals with substantial income and assets were among the strongest predictors of LTCI selection. The odds of choosing LTCI for those assets more than $100 000 were 1.5 times higher than those with no or negative assets.

Beyond individual sociodemographic characteristics, beliefs about who should finance LTSS has a substantial impact on preferences for LTCI. People who supported almost any type of government initiative to support private or public LTCI were more likely to choose LTCI, suggesting that people who see some need for action of almost any kind are more likely to choose a policy. Those who feel strongly that individuals bear the responsibility for purchasing their own policies also stated a preference for LTCI, but supporting public LTCI does not reduce the likelihood of choosing a policy.

Given the stagnant, if not declining, market for private LTCI, some observers have proposed a mandatory public LTCI program, which would cover almost all people, like the Medicare program.[18,22] The Survey of Long-term Care Awareness and Planning found little overall support for such an initiative, which is not surprising given the controversy over the mandates in the Affordable Care Act.[23] While sociodemographic characteristics did not generally identify people who were more likely to prefer insurance in a mandatory system, we found 3 notable exceptions: racial/ethnic minorities and people in fair/poor health articulated a clear preference for mandating coverage, but married respondents had a negative reaction to a mandate. Racial and ethnic minorities may have greater trust in government programs and may believe that they have fewer alternatives. People in fair/poor health generally cannot pass private insurance medical underwriting standards and would have the most to gain from a mandatory program, which may be the only way they could gain insurance. Married couples may oppose a mandate because of competing demands for their income. Income and assets were not significant predictors of preference for insurance in a mandatory system.

Although this study is an advance over previous studies of LTCI in its use of a DCE, this research has several limitations. Although DCEs can add greatly to our understanding of consumer behavior, individual consumer experiences in the real world can never be fully captured on a stated preference survey. The DCE estimates are best thought of as long-run potential estimates of demand and represent a generous high upper bound on the policies people would actually purchase. We also did not specify exactly what services would be rendered in the questions; only a dollar amount was specified for the benefit. In addition, we were unable to account for important community-level variation an important factor in LTCI initiation as not all communities have the access to LTC care or community-based care for chronically ill persons. Finally, there may be possible bias in the sample produced by GfK as only those with Internet access and a computer would be able to answer questions in our DCE. Despite these limitations, DCE behavior has generally agreed with real-world behavior over the long term. Notable examples exist in diabetes care, health risk reduction, and human papillomavirus vaccination.[24-26]

The demand for LTC will increase substantially in the next 30 years, leaving many older Americans open to the risk of a catastrophic illness devastating their savings. The private LTCI market currently remains ill-equipped to cope with the increasing demand. Recent policy discussions note that several policy options are available: from developing mandatory public insurance to reforming the private marketplace to ensure stable and affordable prices for LTCI.[27] Our results may provide policymakers with a better understanding of the forces driving demand in the private LTCI market and their implications for public LTCI.

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