

Do misperceptions about Medicare coverage explain low demand for long-term care insurance?

Motivation

The U.S. population is aging fast. In 2022, about one in six people in the United States were age 65 and over—this proportion is projected to reach more than one in five people in 2050. In comparison, this proportion was less than one in 20 a hundred years ago in 1920.

Along with rapid aging comes rising demand for long-term care to help elderly and disabled individuals with everyday activities such as dressing, eating, getting out of bed, and using the toilet. Long-term care is very expensive and has become a significant financial risk for elderly individuals. Research suggests that 56% of Americans aged 65 will need long-term care services at some point in their lifetime, and they'll spend an average of almost \$140,000 on such services.¹

Financing the rising long-term care cost is a pressing issue for families and policymakers. In the United States, Medicaid, the means-tested public health insurance program, covers long-term care for individuals only when their income and wealth fall below certain eligibility thresholds. Before qualifying for Medicaid coverage, the burden of financing expensive long-term care largely falls on individual families. In this context, individuals and households may benefit from purchasing private insurance to avoid substantial financial shocks. However, only 14% of people age 60 and over have private long-term care insurance, and about one-third of all long-term care expenses in the United States are paid for out of pocket. Researchers have sought to explain this long-term care puzzle—the reluctance of individuals and families to purchase private long-term care insurance despite the significant financial risk. Various explanations have been proposed, including the “crowding out” of demand for private insurance by Medicaid coverage of long-term care services, the high cost of private insurance, the low quality of private insurance, the reliance on family and friends for long-term care, and limited consumer knowledge and myopic thinking.

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Our study shows that misperceptions about the extent of public insurance coverage (one form of limited consumer knowledge) could be a potential explanation for the low rates of private long-term care insurance coverage among older adults in the United States. Misperception of public coverage of long-term care services is widespread. For example, a 2012 study found that 29% of older adults believe Medicare covers extended long-term care uses, while a 2007 survey of Americans age 21 to 75 believe Medicare covers the cost of nursing home care for Alzheimer’s disease patients.^{2,3} A recent survey by the Kaiser Family Foundation found that 45% of those 65 and older believe Medicare would pay for nursing home stays if they had a long-term illness or disability.⁴ Contrary to these beliefs, Medicare only covers skilled nursing care for a limited amount of time following a qualifying inpatient stay. It doesn’t cover extended use of long-term care services, such as those required by patients with Alzheimer’s or other long-term illnesses and disabilities. Our analysis finds that, when individuals begin to enroll in the Medicare program, their knowledge of its coverage of long-term care services improves—and their demand for private long-term care insurance increases.

Methodology

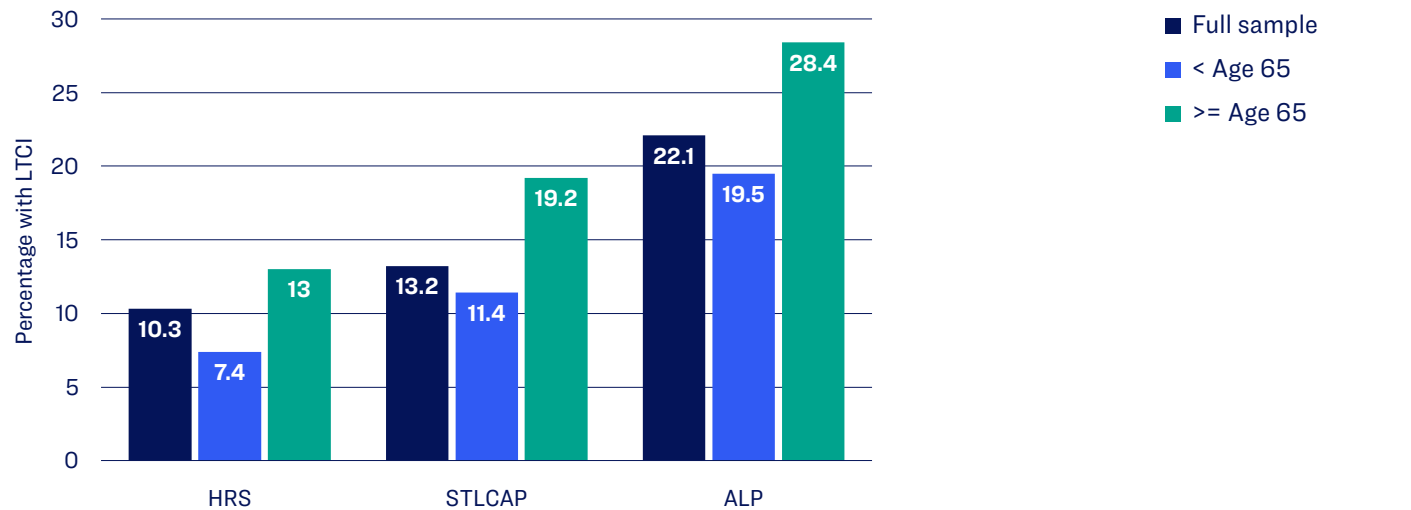
We use data from three surveys: the Health and Retirement Study (HRS),^{5,6} the Survey of Long-term Care Awareness and Planning (SLTCAP)⁷ and a survey based on the RAND American Life Panel (ALP).^{8,9} The HRS is a panel survey of a nationally representative sample of individuals over age 50 and their spouses that’s conducted every two years. It collects detailed information about respondents’ demographics, wealth, health, and insurance coverage.

We use data from the 1992 through 2020 waves of the HRS survey to examine demand for private long-term care insurance coverage.

The SLTCAP is a 2014 survey of non-institutionalized adults aged 40 to 70 years old. It was designed to measure older adults’ attitudes, knowledge, and experience with long-term care services and insurance in the United States. This survey also includes information on whether a person has private long-term care insurance or not. More importantly, it asks respondents which government program pays the most for long-term care services—Medicare, Medicaid, or the Department of Veterans Affairs. We use the answers to this question to measure respondents’ knowledge about Medicare coverage of long-term care services. The ALP surveyed individuals who were 50 years old or older between 2011 and 2013. The ALP asks respondents whether they agree or disagree with the statement that Medicare covers the use of long-term care for those over age 65. The responses to this question provide another measure of knowledge about Medicare coverage of long-term care services.

Figure 1 below shows the rates of private long-term care insurance coverage in the three survey samples. In the HRS sample, 10.3% of all individuals have private long-term care insurance coverage. In the SLTCAP sample, 13.2% report having private long-term care insurance coverage, while 22.1% of respondents in the ALP sample have private coverage. In all three samples, the coverage rate is higher among people 65 years old or older compared with those younger than 65: 13% versus 7.4% in the HRS sample, 19.2% versus 11.4% in the SLTCAP sample, and 28.4% versus 19.5% in the ALP sample.

FIGURE 1. LONG-TERM CARE INSURANCE COVERAGE RATES IN THE HRS, SLTCAP, AND ALP



In Figure 2, we present the responses to the knowledge question in the SLTCAP survey: Which government program pays the most for long-term care services? Overall, 30.9% of respondents (incorrectly) say Medicare pays the most for long-term care services and 31% respond that they don't know. Only 27.4% correctly say Medicaid pays the most for long-term care services. People who are 65 years old or older appear to be more knowledgeable. About 21.9% of this older group have the misperception that Medicare pays the most for long-term care services compared to 33.6% of people younger than 65 years old.

FIGURE 2. WHICH GOVERNMENT PROGRAM PAYS THE MOST FOR LONG-TERM CARE SERVICES?

(The correct answer is Medicaid)

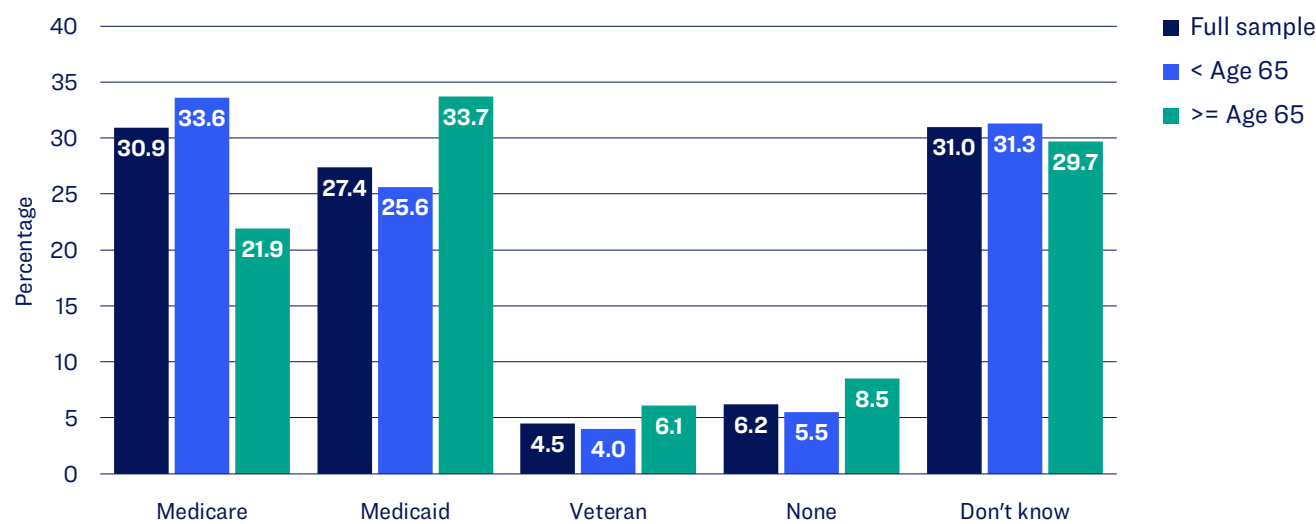
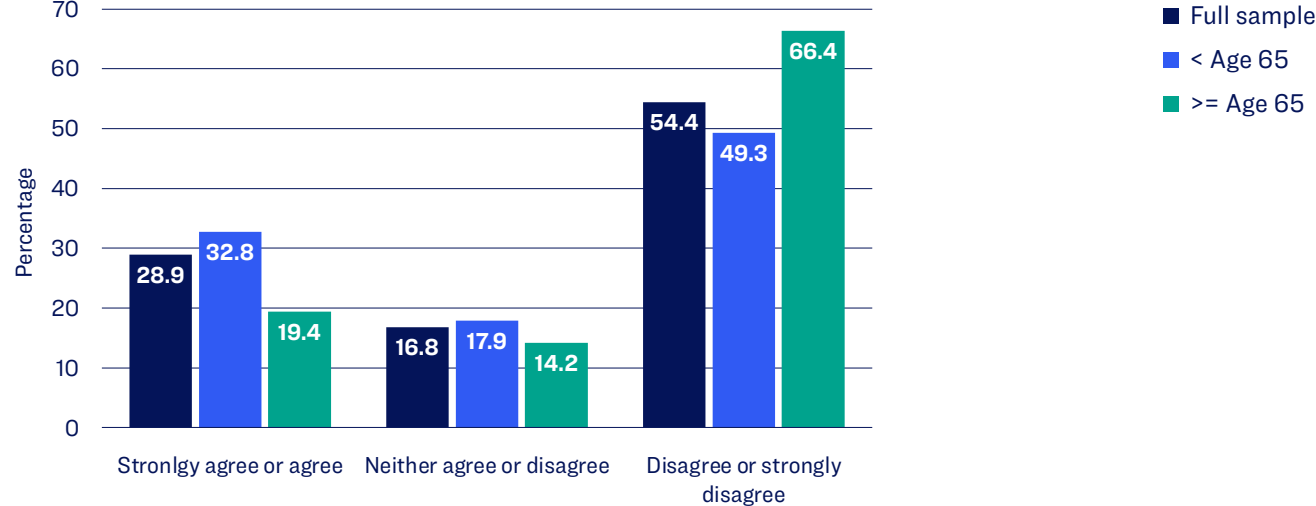


Figure 3 presents the responses to the knowledge question in the ALP survey. Overall, 28.9% of respondents agree or strongly agree with the statement that Medicare covers the extended use of long-term care for those over age 65. This rate is lower among older individuals. About 19.4% of people who are 65 years old or over agree or strongly agree with the statement, compared to 32.8% of people younger than 65 years old.

FIGURE 3. MEDICARE COVERS THE EXTENDED USE OF LONG-TERM CARE FOR THOSE OVER AGE 65



We first examine how private long-term care coverage rates change at age 65, an age at which most people become eligible for Medicare. Our hypothesis is that as individuals enroll in Medicare, they learn that Medicare doesn't cover long-term care services for an extended period, and they correct their misperception. This learning about public insurance coverage of long-term care leads to an increase in their demand for private long-term care insurance. Using a methodology known as regression discontinuity design, we estimate the impact of Medicare eligibility at age 65 on the likelihood of having private long-term care insurance. Our methodology compares long-term care insurance coverage rates among individuals who are slightly older than age 65 with long-term care insurance coverage rates among individuals who are slightly younger than age 65. These two groups are very similar in all characteristics, except the older group is eligible for the Medicare program. Therefore, any significant change in long-term care insurance coverage rates between these two groups is attributed to the impact of Medicare enrollment at age 65.

We then test whether accurate knowledge of Medicare coverage is indeed the pathway leading to an increase in coverage at age 65. To do this, we use the knowledge measures described above and test whether there's a significant, discrete jump in correct responses to the two knowledge questions at age 65.

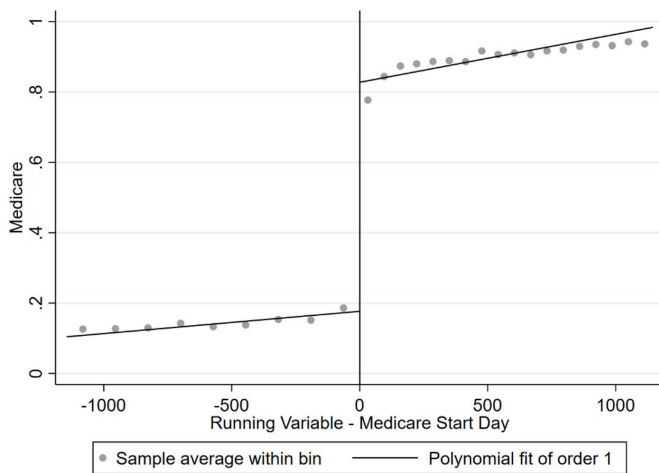
Finally, we test whether alternative hypotheses could explain our key findings. One such alternative hypothesis is that the increase in long-term care insurance rates at age 65 is caused by the fact that many individuals retire at age 65, and financial planning decisions are particularly salient at the time of retirement. To assess whether retirement or other life changes (e.g., moving closer to family or availability of caregiving from family or friends) rather than new information about Medicare coverage explain our findings, we perform the same analysis at age 62 and age 70. We chose these ages because 62 is the earliest age at which individuals may claim Social Security benefits, while 70 is the

age at which delayed retirement credits stop. Therefore, if retirement affects demand for long-term care insurance, we might also expect to see changes in coverage rates at these ages. On the other hand, if knowledge of Medicare coverage is the only relevant factor, there shouldn't be any change in private long-term care insurance at ages 62 and 70.

We also examine changes in life insurance coverage at age 65. While many people have misperceptions about Medicare coverage of long-term care services, most people don't expect Medicare to provide life insurance. Therefore, if our hypothesis regarding misperceptions of Medicare coverage is correct, we shouldn't see changes in life insurance at age 65. However, if other factors—such as life changes around age 65—are important, we might also see a change in life insurance coverage rates.

Key findings

We find a significant, discontinuous increase in the long-term care insurance coverage rate at age 65, an age when many individuals start to have firsthand experiences with the Medicare program and thus learn what the program covers and what it doesn't cover. In the HRS sample, long-term care insurance coverage rates increase by 1.3 percentage points at the time of Medicare enrollment. While this is a small increase in absolute terms, it represents a 17.6% increase relative to the 7.4% average insurance rate of people younger than 65. Figure 4 presents a graphical representation of our estimates using the HRS sample. The figure shows a clear, discontinuous increase in long-term care insurance rates at the time of Medicare enrollment. We find no evidence of similar changes in long-term care insurance coverage at ages 62 or 70, or in life insurance coverage at age 65. These results support our hypothesis that individuals learn about Medicare coverage of long-term care services when they enroll in the program and, therefore, increase their demand for private long-term care insurance.

FIGURE 4. REGRESSION DISCONTINUITY GRAPH FOR MEDICARE COVERAGE

Note: The dependent variable is a binary indicator for currently being covered by Medicare, and the cutoff point is the day on which Medicare coverage starts for individuals who enroll in Medicare within the initial enrollment period.

We find much larger increases in long-term care insurance coverage in the SLTCAP and ALP samples. At age 65, long-term care insurance rates increased by 6.1 percentage points (or a 53.5% increase relative to the average insurance rate of 11.4% among people younger than 65) in the SLTCAP sample and by 6.2 percentage points (or a 31.8% increase relative to the average insurance rate of 19.5% among people younger than 65) in the ALP sample. To directly assess whether learning about Medicare coverage is the explanation for the observed increases in long-term care insurance rates at age 65, we examine the knowledge measures available in the SLTCAP and ALP surveys. Consistent with the jump in long-term care insurance coverage at age 65, we find a significant increase in the proportion of individuals who have accurate knowledge of the public insurance coverage of long-term care services in the United States. There's a 6.1 percentage point decrease (an 18.2% decrease relative to people younger than 65) in the likelihood of reporting that Medicare pays the most for long-term care services among respondents to the SLTCAP sample. This estimate is remarkably close to the increase in long-term care insurance rates at age 65 in the SLTCAP sample, which suggests that the entire increase in long-term care insurance rates at age 65 may be driven by individuals learning that Medicare does cover long-term care on an extended basis and isn't the primary payer for these services. We also find a 4.1 percentage point increase (a 16% relative increase) in the proportion of people correctly reporting that Medicaid pays the most for long-term care services. There's no significant change in the percent of individuals responding "none" or

"don't know" to this question. In the ALP survey, we find a 1.39 percentage point decrease in the probability of agreeing or strongly agreeing with the statement that Medicare covers the extended use of long-term care for those over age 65. We find a corresponding increase in the probability of disagreeing or strongly disagreeing with this statement and an insignificant decrease in the probability of neither agreeing nor disagreeing with this statement.

Next, we explore whether the estimated changes in long-term care insurance demand vary by demographic, socioeconomic factors, and healthcare needs in the HRS sample. We first examine differences by gender. Men and women could differ in their demand for long-term care insurance for at least two reasons. First, research has found that older women have lower levels of financial literacy compared to older men. Second, women have longer life expectancy than men and thus may want to have more protection in old age. However, we don't find substantial differences between men and women in the change in long-term care insurance coverage at age 65. Second, individuals with limited wealth may qualify for their state Medicaid program, which could influence their demand for private long-term care insurance. In addition to providing regular health insurance coverage to low-income individuals and families, Medicaid also covers the extended use of long-term care services. Therefore, knowledge of Medicare coverage may not influence the demand for private long-term care insurance among poorer households but may be important for wealthier households. In fact, we find larger increases in private long-term care coverage at age 65 among wealthier households.

Finally, we examine differences by the number of living children that the person has because children may be an important source of informal caregiving for older adults. Some individuals may prefer to rely on their children or other family members for their care, and, as a result, they may have reduced demand for long-term care insurance, which covers formal care services. On the other hand, some individuals may prefer not to burden their family members and may choose to purchase long-term care insurance. We don't find substantial differences between people with at least one living child and people with no living children. Finally, we explore whether the change in long-term care insurance varies by individuals' expected need for long-term care services in the future. To do this, we rely on an HRS survey question asking respondents to self-report their likelihood of entering a nursing home within the next five years. We categorize people who say there's a 50% or higher chance of entering a nursing home within the next five years as people with high expected needs. Those with less than a 50% chance of entering a nursing home within the next five years are categorized as people with low expected needs. We find a much larger increase in long-term care insurance coverage at age 65 among the high-need group than among the low-need group. However, these estimates are not statistically significant.

Implications

Our study shows that knowledge or misperceptions about public insurance coverage of long-term care services influences demand for private long-term care insurance. Additionally, when people have more accurate information about Medicare coverage of long-term care services, they base their private insurance purchase decisions on their potential need for care and access to other sources of coverage. People who have a high expectation of needing long-term care in the future and wealthier individuals, who don't have access to other sources of public long-term care insurance such as Medicaid, are more likely to purchase private insurance at age 65. These findings suggest that information campaigns or other policies that increase awareness and improve knowledge of the limitations of public insurance coverage may be effective in increasing demand for private long-term care insurance—expanding the private long-term care insurance market and reducing the financial burden of long-term care on families and federal and state governments. Such policy interventions can be low cost and effective and should be considered by policymakers and consumer advocacy groups. Moreover, such policies are likely to boost private insurance coverage rates, particularly among groups who would benefit the most from such coverage—people with a high need for long-term care and without access to other sources of long-term care insurance.

Endnotes

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Padmaja Ayyagari is an Associate Professor of Economics at the University of South Florida (USF). Her research lies at the intersection of health economics and the economics of aging, with a focus on evaluating how social insurance programs and economic shocks influence the health and financial well-being of older adults. Her work has been published in leading academic journals and conference proceedings, including the *Journal of Health Economics*, *Health Affairs*, and *American Economic Review: Papers and Proceedings*.

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This research was supported by funding from the TIAA Institute. The content, findings and conclusions are the responsibility of the authors and don't necessarily represent the views of TIAA or the TIAA Institute.

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