



# Tax incentives and the decision to purchase long-term care insurance <sup>☆</sup>

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## ARTICLE INFO

### Article history:

Received 31 October 2007

Received in revised form 26 May 2008

Accepted 27 May 2008

Available online 4 June 2008

### JEL classification:

I10

I18

H20

### Keywords:

Long-term care

Long-term care insurance

Tax incentive

HIPAA

Medical expenses

Itemization

Demand elasticity

Fiscal impact

## ABSTRACT

This paper studies the impact of the tax incentive prescribed in the Health Insurance Portability and Accountability Act of 1996 (HIPAA) on individuals' long-term care insurance purchasing behavior. Using data from the Health and Retirement Study, we find that the tax incentive in HIPAA increased the take-up rate of private LTC insurance by 3.3 percentage points, or 25%, for those eligible. Despite this seemingly strong response, our results imply that even an above-the-line tax deduction would not increase the coverage rate of seniors beyond 13%, indicating that tax incentives alone are unlikely to expand the market substantially. We also present, to our knowledge, the first estimate of the price elasticity of demand for LTC insurance of around  $-3.9$ , suggesting that demand is highly elastic at the current low ownership rate. Finally, we evaluate the net fiscal impact of the tax incentive and find that the tax deductibility of LTC insurance premiums leads to a net revenue loss for the government, as the reduced tax revenue from granting the tax incentive exceeds the savings in Medicaid's LTC expenditures.

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## 1. Introduction

The long-term care needs of seniors have been placing great financial pressure on the U.S. public insurance program Medicaid in recent years. In 2004, Medicaid paid 42% of the nation's spending on long-term care (\$158 billion) and 43% of its spending on nursing homes (\$115 billion) (Kaiser, 2006a). These numbers will likely rise dramatically since the share of the population above age 85 is expected to triple in the next four decades (Census Bureau, 2004). How to ease the burden on Medicaid of the seniors' long-term care needs has drawn a great deal of public attention and been the subject of heated policy debates (Abt Associates, 2001).<sup>1</sup> One option is to use tax incentives to expand the market for private long-term care (hereafter LTC) insurance, which currently covers only about 10% of the elderly population above age 65 and paid about 8% of the nation's total LTC expenditures and 9% of the nation's nursing home bills in 2004 (Kaiser, 2006b).

<sup>☆</sup> The authors are grateful to the editor, an anonymous referee, Sebastian Galiani, Lee Benham, Marcus Berliant, Steve Buccola, Edward Greenberg, Jeremy Jackson, Mindy Marks, Bruce Petersen, Michael Plotzke and Paul Rothstein for helpful comments and suggestions. All errors are our own. Partial financial support from the CRES, Washington University is acknowledged.

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<sup>1</sup> Examples of options provided in Abt Associates (2001) include "maintenance of current law, the expansion of Medicare to cover LTC, mandatory private insurance, refundable tax credits to encourage growth in the private LTC insurance market, policy that provides relief from Medicaid eligibility requirements for individuals who purchase LTC insurance."

Governments at both the federal and state levels have implemented tax incentives to stimulate the private LTC insurance market. The Health Insurance Portability and Accountability Act of 1996 (HIPAA) gave favorable tax treatment to private LTC insurance, allowing it to be treated as health insurance when calculating an individual's federal income tax liability. For the vast majority of the population, LTC insurance premiums can therefore be counted as medical expenses for the purpose of itemized deductions.

This paper presents, to our knowledge, the first evidence of how people responded to the tax incentive in HIPAA, as well as the first estimate of the price elasticity of demand for LTC insurance. The fact that only 10% of the elderly have LTC insurance a decade after HIPAA was passed suggests that the act has not dramatically increased the size of the market. Nonetheless, calculating how much of the current market size can be attributed to HIPAA is useful because it allows us to estimate what the impact would be of a more widespread policy, such as an above-the-line deduction.

A priori, it is not clear whether the tax incentive provided by HIPAA should have an impact on people's LTC insurance purchasing decisions. On one hand, the demand for LTC insurance may not be responsive to price changes due to potential underlying limiting factors.<sup>2</sup> In particular, [Brown and Finkelstein \(2008\)](#) argue that Medicaid may crowd-out the demand for private LTC insurance for up to the 60th percentile of the wealth distribution. Moreover, individuals are allowed to deduct only the portion of their medical expenses above 7.5% of their adjusted gross income (AGI). This stringent requirement suggests that the deductibility of medical expenses may apply only in years when one experiences unexpected negative health shocks. If the deductibility of medical expenses is largely unpredictable, favorable tax treatment contingent on medical itemizing status might not affect an individual's purchasing decision.

On the other hand, [Brown and Finkelstein \(2008\)](#) also point out that the very existence of Medicaid crowd-out suggests that prospective LTC insurance buyers are price sensitive, which may imply that the change in relative prices induced by HIPAA may in fact have affected purchasing. Moreover, for people in the age range for making LTC insurance purchasing decisions, deductibility of medical expenses is much more predictable than it is for the average population.<sup>3</sup>

This ambiguity suggests that whether or not tax incentives affect LTC insurance purchasing decisions is an empirical issue. Using data from the Health and Retirement Study (HRS), we aim to answer three questions: 1) Did people respond to the tax incentive prescribed in HIPAA; 2) What is the price elasticity of demand for LTC insurance; and 3) What was the effect of the tax incentive on net government revenues?

We answer the first question by exploiting the fact that, since HIPAA allows individuals to deduct LTC insurance premiums as medical expenses, only those who itemize medical expenses are eligible for the tax break. We estimate a difference-in-differences model, defining the treatment group as individuals who itemized medical expenses in the pre-treatment year and the control group as those who did not itemize medical expenses in the pre-treatment year and would not have been able to do so even if they had owned a deductible policy. We use itemizing status in the pre-treatment year instead of that in the current year to avoid reverse causality: in the post-treatment years, individuals who owned LTC insurance were more likely to itemize medical expenses since the premium of the policy could then be counted as medical expenses.

We find that HIPAA increased the ownership rate of LTC insurance by 3.3 percentage points, or 25%, for those eligible for the tax treatment. While this effect seems substantial, it implies that HIPAA increased the total market size of LTC insurance by less than half a percentage point. An extrapolation of our result suggests that an above-the-line tax deduction would expand the coverage rate of seniors from the current 10% to only 13.3%. Our findings are consistent with the argument in the literature that Medicaid crowd-out limits the potential size of the private LTC insurance market ([Brown and Finkelstein, 2007, 2008](#); [Brown et al., 2007](#)).

We estimate the price elasticity of LTC insurance by exploiting the fact that, for individuals who do itemize medical expenses, the size of the tax break depends on their federal marginal income tax rate. Using an instrumental variables estimator, we estimate an elasticity of around  $-3.9$ , suggesting that the current market for private LTC insurance is very price elastic in the local range of low baseline ownership rates.

Finally, we conduct a fiscal impact analysis to examine the effect of the tax incentive on net government revenues. We find that the foregone tax revenue exceeds the savings for Medicaid, suggesting that it may not be fiscally wise to use tax subsidies to expand the private LTC insurance market.

The rest of the paper is organized as follows. Section 2 provides background information about LTC, LTC insurance, and the policy intervention prescribed in HIPAA. Section 3 describes the data, outlines the empirical identification strategy and reports the results. Section 4 conducts robustness checks. Section 5 estimates the price elasticity of LTC insurance demand. Section 6 conducts the fiscal impact analysis. Finally, section 7 concludes.

## 2. Background

### 2.1. LTC and LTC insurance

LTC refers to a range of medical, personal, and/or social services designed to support the needs of individuals living with disability or chronic health conditions. Nursing homes provide institutional LTC to individuals who need assistance with Activities

<sup>2</sup> The factors may include individual myopia, misconceptions about the extent of the public insurance coverage, informal care provided by family and friends, and a Medicaid crowding-out effect (see [Norton, 2000](#) for a review).

<sup>3</sup> Individuals in our sample were between 55 and 65 in 1996, largely conforming to the prime buying age of 55–69 for LTC insurance ([HIAA, 2000](#)). The correlation of medical itemizing status between consecutive years is about 0.5 in our sample, supporting our view that itemizing is somewhat predictable for this age group.

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