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A Voluntary Lapse Rate of 12.6 Percent for LTCI? Not Really

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In a recent article submitted to the journal *Applied Economic Perspectives and Policy,* Yong Li and Gail Jensen detail their research on the causes of voluntary lapse of long-term care insurance (LTCI) policies. The authors found that, when measured over a two-year period, "13% of LTCI policies lapse." Li and Jensen also conclude that individuals with less consumer knowledge regarding their LTCI coverage, individuals who purchased policies with lower benefit levels, and individuals who had received LTCI benefits are more likely to lapse.

But, before you increase your voluntary lapse assumption, you should read on! This article reviews the data and methodology used to arrive at this seemingly incredible rate, compares the Li/Jensen results with those of recent industry studies, and suggests areas for further study for both LTCI actuaries and the authors.

DATA

The Li/Jensen work is based on data from the U.S. HRS (U.S. Health and Retirement Study) for the years 2002 through 2008. The HRS is produced by the Institute for Social Research at the University of Michigan and is based on responses to surveys of more than 22,000 people over the age of 50 conducted every two years. These biennial surveys collect data on respondents' health, financial resources and insurance coverage. In 2002, the survey began to include questions on these individuals' private LTCI coverage, such as the types of LTC services covered, the premium charged, and whether the coverage included inflation protection.

Li and Jensen's analysis is focused on HRS respondents who indicated they currently have LTCI coverage that provides nursing home care for a year or more or provides personal or medical care in the home. Respondents also needed to confirm that their insurance coverage was not provided by public sources such as Medicaid, Medicare or traditional health insurance. The number of unique individuals falling into this category over the six-year period was 2,085, and the total number of observations included in their analysis was 4,473.

The industry studies produced every 2 to 3 years by the Society of Actuaries (SOA) and LIMRA are based on data provided directly from insurance carriers, ensuring that only individuals with confirmed private insurance coverage for long-term care are included in the analysis of voluntary lapse activity. In addition, these industry studies have greater statistical credibility. The most recent SOA/LIMRA study of LTCI voluntary lapse covered experience years 2005 through 2007 and included more than 280,000 lapses and 7.4 million lives exposed.

For purposes of the Li/Jensen analysis, a "voluntary lapse" is recorded if an individual indicates that he/she had LTC insurance coverage in the prior survey, but had no coverage at the time of the following survey (two years later). The number of individuals who lapsed their policies over the full observation period was 565, so when this is divided by the total number of observations of 4,473, we obtain the overall lapse rate of 12.63 percent. Note that based on this definition of voluntary lapse, we would suggest that the 565 lapses identified by Li and Jensen almost certainly include non-lapse terminations such as deaths and benefit exhaustions. This may explain, at least in part, the counterintuitive result of the Li/Jensen analysis indicating that those who have used their LTCI coverage and received benefits are more likely to lapse.

For SOA/LIMRA industry studies, in most cases, additional information is collected indicating whether a policy termination occurred due to voluntary lapse, death or benefit exhaustion. This allows for a more accurate definition and more accurate recording of voluntary lapse activity.

METHODOLOGY

The Li/Jensen work involved the development of a multivariate logit model with parameters estimated via maximum likelihood. This model was then used to measure the importance of different factors potentially affecting lapse experience.

The SOA/LIMRA studies use a more typical survival experience analysis for the study of mortal-

ity, morbidity and voluntary lapse experience for LTCI.

RESULTS

Overall rate of voluntary lapse. Li and Jensen concluded that "LTCI lapses remain relatively high at 13% per two year period." Readers should note that after adjusting for the fact that the Li/Jensen study reported voluntary lapse experience on a two-year basis while SOA/LIMRA industry results are presented on an annual basis, the overall lapse rates are reasonably close. Over the period from 2002 through 2008, on an annual basis, the LIMRA/SOA results of individual and group coverage, all issue years and all policy durations combined, indicate an overall lapse rate of 5.2 percent (assuming annual compounding and a uniform lapse distribution); and the Li/Jensen results indicate an overall annual lapse rate of 6.2 percent. Annual lapse rates in the range of 5 to 6 percent overall are also in line with other insurance financial products, including life insurance, annuities and disability insurance.

High early year voluntary lapse rates. SOA/LIMRA study results also concur with those of Li/Jensen in indicating that lapse rates are highest in the years immediately following policy purchase. This is most likely the result of buyer's remorse, possibly due to lack of knowledge regarding the product purchased.

Higher rates of voluntary lapse for individuals receiving LTCI benefits. The Li/Jensen results also seem to indicate that insureds who had experience with receiving LTC services and had dealt with their insurer to collect benefits were materially more likely to lapse than those who did not collect benefits. The authors suggest that those who received benefits under their LTCI policy may have been disappointed with the experience in terms of either the level of benefits received or their interactions with the insurer or both, leading them to lapse their policy. In our view, it is more likely that non-lapse terminations such as deaths and benefit exhaustions are impacting results for this portion of the population by inflating the reported voluntary lapse numbers.

Higher rates of voluntary lapse for individuals who were unfamiliar with their policies. The HRS survey included questions requiring individuals to specify the premium range, presence of inflation protection, and care type covered (Nursing Home, Home Health Care or Comprehensive). Based on Li/Jensen's work, for individuals who responded "unknown" to the questions regarding the policy characteristics, and those for whom premiums were less than $50 per month, voluntary lapse rates over the study period were significantly higher than for those who responded definitively.

- Nearly 31 percent of those reporting monthly premiums of less than $50 per month, and nearly 23 percent of those who were uncertain of the premium amount, reported having lapsed their policies. In contrast, the two-year lapse rate observed for policyholders who could identify the range of their premiums was less than 10 percent.

- Similarly, over 23 percent of respondents who could not identify the existence or type of inflation protection on their policies voluntarily lapsed, while over 42 percent of policyholders who did not know the types of care covered by their policy voluntarily lapsed.

CONCLUSIONS

Overall rates of voluntary lapse based on the Li/Jensen analysis are reasonably close to overall rates of voluntary lapse reported in the SOA/LIMRA

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These statistics raise additional doubt as to whether the analysis is based on a true private LTCI population.

studies for a similar period. However, for purposes of pricing and valuation of LTCI blocks, more precise measurement of lapse rates is required, preferably based on a survival analysis methodology and using data that includes greater detail regarding the cause of termination. In addition, because lapse experience can vary significantly by policy and product factors, including type of coverage (group vs. individual), length of benefit period, length of elimination period, and inflation protection level, experience data should also allow for analysis based on these factors.

Finally, while the percentage of those surveyed who did not know the coverage care types provided by their policies was relatively small at 4 percent, 13 percent could not identify either the inflation protection feature or the type if they had it, and 15 percent did not know the premium amount for their policies. These statistics raise additional doubt as to whether the analysis is based on a true private LTCI population.

Although the relatively small sample size and the questions about the base population makeup lead us to recommend industry and individual company studies as the continued basis for LTCI financial work, the HRS data and analysis tools used by Li and Jensen provide an interesting starting point for further investigation of factors not currently included in the SOA/LIMRA industry data, including consumer knowledge regarding LTC and LTCI, socioeconomic factors such as household income, and health status. While the Li/Jensen study does not offer sufficient statistical credibility to be used for voluntary lapse experience analysis for valuation and pricing assumption setting, it suggests that other factors not ordinarily considered by actuaries should be incorporated into such analyses. ■