Suicide Trends in an Insured Population

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Editor’s note: David Wylde provided a preliminary analysis of suicide claims in the March 2011 issue of The Messenger. He concluded with several issues that should be of interest to carriers:

“First, while the number of suicide claims remained stable during the economic crisis, the dollar amount of these claims increased significantly in 2010. This implies an increase in anti-selective behavior on the part of policyholders... Second, there is some evidence to suggest the insurance industry is experiencing contestable period suicide claims that are being misidentified as other causes. If this has been occurring for a while at a consistent level, then any mortality implications should already be built into the industry's pricing. However, if anti-selective behavior is on the rise, then this is the time to contemplate possible corrective actions.”

In this issue, David revisits the topic of suicide and trauma claims with updated post-contestible claims data. His conclusions potentially point to insured behavior during the financial crisis, with a rise in aviation accident claims paid. On the other hand, the potential for economic recovery appears to be positively affecting both suicide and aviation claims.

Last November, the medical journal The Lancet reported that United States suicide rates increased four times faster between 2008 and 2010 than it did in the eight years preceding the recession (The Lancet, Volume 380, Issue 9856, Pages 1813-1814, November 24, 2012). One immediately wonders if this trend is mirrored in the insured population. We reviewed SCOR’s trauma deaths from 2005 through 2012 to shed some light on this remarkable trend from an insurance industry perspective.

Historical Trauma Claim Counts by Year of Death

SCOR maintains an historical database of paid reinsurance claims. For calendar years 2005-2011 and the first half of 2012, the database contains more than 115,200 claims having a reported cause of death. Of these, about 12,300 deaths resulted from trauma (e.g., motor vehicle accident, suicide, aviation accident, drowning, etc.) in durations three or later. I excluded the first two durations because suicide claims are typically denied during this period due to the contestability period.

Figure 1 shows claim counts for suicide, motor vehicle accidents, and other trauma (as a percentage of all trauma claims) for 2005 through the middle of 2012. Notice that while the percentage of suicides has risen slightly since 2005, there have been only small increases in trauma-related claims since 2008.

It is interesting that, over the time period shown, the sum of the suicide and the motor vehicle percentages has remained relatively stable at
around 55-60 percent. Recall from my 2011 *Messenger* article, “The Role of Suicides in Trauma Claims,” that I suspected many motor vehicle claims are in fact misidentified suicides. From a count basis, the data from Figure 1 lends additional credence to this belief. Note that I have used the word “misidentified” rather than “disguised” because I eliminated claims during the contestable period. There would be little financial incentive for an insured to hide the fact of a suicide after the second duration.

From a count perspective, it does not appear that the 2008 economic meltdown caused an increase in the relative number of suicides experienced by SCOR’s insured population. However, the actual financial impact of a change in the suicide rate is better measured by paid claim benefits rather than claim counts. Fortunately, SCOR’s database also contains benefit amounts reimbursed to our reinsurance clients on each death.

**Historical Trauma Claim Amounts by Year of Death**

When looking at the trend in trauma paid benefit amounts, there is definitely a spike in the relative percentage attributable to suicide beginning in 2008, as shown in Figure 2. While it appears that the suicide trend reversed itself in 2011, a closer review of “Other trauma” claims points to a different possibility.

As it turns out, claim amounts in both 2011 and 2012 were skewed by large-face-amount private aviation accidents. Figure 3 compares the distribution of suicide, aviation, motor vehicle, and other trauma claim benefits for calendar years 2008 through 2012. While the percentage of trauma claims due to suicides drops in 2011 and 2012, there is a counteracting increase in the percentage due to private aviation. Notice that the sum of the suicide and aviation percentages remains fairly stable at around 50-55 percent throughout the period.

Is it possible that during the latter part of the recession aviation “accidents” become an instrument of choice for suicides among the very wealthy? Figure 4 provides some additional evidence that this might be the case. It shows the average reinsurance benefit amount (not the original policy amount) for private aviation accident claims in Durations Three and later as compared to reported suicide claims.

The sharp increase in 2008 in both aviation and suicide benefit amounts may indicate anti-selective behavior on the part of claimants due to the recession. There was not an unusual increase in the number of claims in that period, but the average size of those claims increased quite dramatically.
Even though the general US population recently experienced a four-fold increase in the suicide death rate, it does not appear that the number of insurance claims from suicides (both reported and “misidentified”) is on the rise. What we have seen instead is an increase in the average benefit size paid on suicide and private aviation claims in 2008-2012 compared to 2005-2007. Now that the economy is apparently on the mend, time will tell whether this trend reverses itself.∞

Figure 4 – Average Reinsurance Benefit Amounts Durations 3+

<table>
<thead>
<tr>
<th>Benefit (thousands)</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2Q2012</th>
</tr>
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<tbody>
<tr>
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<td>$137</td>
<td>$137</td>
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<table>
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<tr>
<th>Benefit (thousands)</th>
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<th>2006</th>
<th>2007</th>
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</table>

Average reinsurance death benefits paid due to aviation accident more than doubled from 2008 to mid-2012, while claims attributed to suicide increased at a much slower pace. Could “suicide by aviation” be a cause for these numbers?

Summary

Even though the general US population recently experienced a four-fold increase in the suicide death rate, it does not appear that the number of insurance claims from suicides (both reported and “misidentified”) is on the rise. What we have seen instead is an increase in the average benefit size paid on suicide and private aviation claims in 2008-2012 compared to 2005-2007. Now that the economy is apparently on the mend, time will tell whether this trend reverses itself.∞