

## *Morbidity Study*

# Canadian Individual Critical Illness Insurance Morbidity Experience Study Including Policy Anniversaries Between 2005 and 2014 Using Expected Incidence Rate Tables 2008 CANCI

Individual Living Benefits Experience Subcommittee –  
Research Committee

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## **Canadian Individual Critical Illness Insurance Morbidity Experience Study Including Policy Anniversaries Between 2005 and 2014 Using Expected Incidence Rate Tables 2008 CANCI**

This is the third report submitted by the Individual Living Benefits Experience Subcommittee of the Canadian Institute of Actuaries (CIA) Research Committee detailing the intercompany morbidity experience for Canadian individual critical illness (CI) insurance policies.

### **Expected CIA Incidence: 2008 CANCI Tables**

The Expected tables used throughout this study refer to the 2008 CANCI tables published by the CIA in July 2012. For additional information, please refer to the following:

[Research paper](#)

[Excel tables](#)

General comments on the use of the 2008 CANCI tables:

- The Expected tables used in the Actual to Expected (A/E) results are unismoke and do not reflect any impact from the insurance underwriting process;
- The Expected tables reflect a distribution by smoking status found in the general population, which may differ from the distribution seen in an insured population;
- The Expected tables used in deriving the Exposure figures in this report reflect the number of illnesses found in each insurance policy included in this study, as well as any limitations with regard to age or payment amount for each covered illness;
- The Expected tables reflect general population incidence rates trended to January 1, 2008;
- The number of illnesses covered by a typical CI policy has increased since early 2000 and, in addition, the definitions used in insurance contracts may have changed during the study period and thereafter (e.g., heart attack, Parkinson's disease); and
- The 2008 CANCI tables represent general population levels of expected incidence adjusted to reflect the first occurrence of covered conditions and the initial version of the Canadian Life and Health Insurance Association (CLHIA) CI benchmark definitions<sup>a</sup>. They are differentiated only by illness, attained age, and gender, and are not intended to reflect incidence rates of insured lives.

### **Methods**

The exposures and claims presented in this study are for only those policies that satisfied the scope of the study, i.e., those with policy anniversary dates in any of the policy years 2005–2006 through 2013–2014. The following data were excluded:

- Any policies issued to people under the age of 20;
- Policies with a substandard rating;

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<sup>a</sup> CLHIA Critical Illness Benchmark Definitions – Developed in 2007-2008 and published in May 2009.

- Policies that “accelerate” a life insurance benefit upon diagnosis of a covered critical illness;
- Group and creditor insurance policies; and
- Policies with claims for unknown causes (less than 1% of the final number of claims for this study).

The Exposure was calculated using the “Actuarial” method. For example, in the first of the five sets of five-year tables, we measured exposure years as the time for which the policy was exposed from the 2005 anniversary date to the 2010 anniversary date. The number of exposure years per policy could be as high as five. If the policy was not issued until after the 2005–2006 policy year or if it terminated prior to the 2010 anniversary date, the number of exposure years would be less than five. Termination for reasons other than claims can result in partial years of exposure. The total number of exposure years for each five-year table is therefore greater than the number of policies.

The exposed dollar amounts were calculated similarly by multiplying the face amount of the policy by the number of exposure years for that policy, year by year.

The incidence rates used were classified by attained age and sex for each covered illness. The expected number of claims is the sum (over all covered illnesses for each policy) of the product of exposure for that year and the incidence for the attained age in that year. These sums are then summed over all policies and years. (Attained age was calculated on an age-nearest-birthday basis in all cases except when the birth date was missing and the policy was issued on an age-last basis. In that case, the age was calculated as the age at issue plus duration. Then the expected claim morbidity rate was calculated as the mean of the morbidity rates at the calculated age and the rate at the next higher age.)

The expected claim dollar amounts were calculated similarly, but rather than multiplying by face value, they were multiplied by the amount that would be paid for a claim under each separate illness to account for partial claims, for example for non-life-threatening conditions (NLTCs).

The table columns entitled S.D. provide estimates of the standard deviation of the ratios of actual to expected numbers of claims. These numbers measure the precision or degree of confidence in the ratios. The formula used to calculate these standard deviations is

$$S.D. = \frac{(\text{actual number of claims})^{1/2}}{\text{expected number of claims}}$$

### **Confidentiality**

This project produces summary tables of which the granularity is subject to constraints to protect the confidentiality of the participating companies. The rule specified is that, for any cell that is published, there must be at least four companies contributing data to that cell, and no company may provide more than 55% of the experience in that cell (measured using exposure count).

A cell is a row in a summary table specified, for example, by a combination of an attained age, a smoking status, and a sex. If the number of exposures for that row in the table satisfies the two

conditions of the above rule, the data are accepted as is; if the rule is not satisfied, then groupings for one of the variables are combined and the corresponding data are aggregated. The process is repeated until the resulting row satisfies the two constraints. The summary tables included here satisfy the confidentiality rule.

### Other Details Regarding the 2005–2014 Study

- Eleven of the 649,247 unique policy number records in this study (0.002%) had a smoking code of “unknown”. These were included with “non-smokers” experience. This adjustment was considered to be immaterial.
- 12,145 (1.87%) policies were reported as conversions or plan changes. An ideal use of the data would have been to reflect the actual conversion on a point-in-scale basis, but due to data limitations, 37.4% of the 12,145 policies in question were treated as new policies.
- Policies with exclusions were considered standard policies. The expectation is that the number of policies with exclusions is relatively small, and the impact of the exclusion on each policy carrying an exclusion is also small.
- Due to rounding, occasionally the expected number of claims as reported in the tables is 0, even though the expected \$ amount is greater than 0. Numbers of claims and exposures are rounded to the nearest integer, which accounts for some additions being off by small numbers. For example, male claims added to female claims may not equal overall claims.
- Tables for five-year studies will vary slightly from those in the published 2003–2011 study due to
  - Late-reported claims in the most recent data submission;
  - Corrected 2007–2011 data from one company; and
  - The inclusion of data from a newly participating company.

### Company Participation

**Table C1. The 11 companies that participated in the 2005–2014 study**

Canada Life Assurance
Co-operators Life Insurance
Desjardins Financial Security
Great-West Life Assurance
Humania Assurance
Industrial Alliance
Manulife Financial
RBC Life Insurance
SSQ Financial Group
Sun Life Financial
Wawanesa Life Insurance

Not every company contributed data to every policy year.

### Company Experience Ratio Variability

In the following tables, Percentage Departure represents the deviation of the company-specific A/E ratio (based on amounts) from the Total Experience line of Table C4d. For example, for Table C2a below, one company had an A/E ratio of 60.2%, which was 107.88% of the overall A/E (55.8%). This company, along with two others, contributed \$139,456,850 or 48.14% to the 2005–2010 five-year study's actual claims.

**Table C2a. Company experience ratio variability (2005–2010)**

Percentage Departure	Number of Companies	Actual Claims	Percentage of Claims
Within 5%	3	\$113,896,001	39.32%
5%–10%	3	\$139,456,850	48.14%
Greater than 10%	5	\$36,319,989	12.54%
Total	11	\$289,672,840	100.00%

**Table C2b. Company experience ratio variability (2006–2011)**

Percentage Departure	Number of Companies	Actual Claims	Percentage of Claims
Within 5%	4	\$228,930,821	69.71%
5%–10%	3	\$82,197,394	25.03%
Greater than 10%	4	\$17,283,425	5.26%
Total	11	\$328,411,640	100.00%

**Table C2c. Company experience ratio variability (2007–2012)**

Percentage Departure	Number of Companies	Actual Claims	Percentage of Claims
Within 5%	4	\$209,103,175	57.66%
5%–10%	2	\$130,046,875	35.86%
Greater than 10%	5	\$23,487,683	6.48%
Total	11	\$362,637,733	100.00%

**Table C2d. Company experience ratio variability (2008–2013)**

Percentage Departure	Number of Companies	Actual Claims	Percentage of Claims
Within 5%	3	\$213,953,346	53.21%
5%–10%	4	\$181,572,223	45.16%
Greater than 10%	4	\$6,563,080	1.63%
Total	11	\$402,088,649	100.00%

**Table C2e. Company experience ratio variability (2009–2014)**

Percentage Departure	Number of Companies	Actual Claims	Percentage of Claims
Within 5%	7	\$410,860,175	96.75%
5%–10%	0	\$0	0%
Greater than 10%	4	\$13,788,335	3.25%
Total	11	\$424,648,510	100.00%

As expected, for companies with fewer exposures, the estimation of A/E has more statistical variation and this variation contributes to the tendency of results for those companies to be further away from the average experience.

Table C2e shows less variability in the A/E ratios by company. However, variability can still be seen by year. Although inconclusive, the reader should keep in mind that the most recent period would be most affected by a higher weight of Duration 1 exposure (lowest A/E) and a greater claim reporting lag.

### Results

The following tables are included in the appendix to this document and provide the full set of results of the 2005–2014 morbidity study. They are appended in Excel format and have indices at the tops of the files with links to each of the individual tables below the indices.

- **Table 1** Total experience by groups of duration, issue ages, attained ages, and sex;
- **Table 2** Table 1 classified by smoking habits;
- **Table 3** Table 1 classified by smoking habits and policy face amounts;
- **Table 4** Total experience by illness, smoking habits, and sex;
- **Table 5** Heart attack experience by smoking habits and sex;
- **Table 6** Life-threatening cancer experience by smoking habits and sex;
- **Table 7** Stroke experience by smoking habits and sex;
- **Table 8** Total experience by return of premium type;
- **Table 9** Total experience by policy year;
- **Table 10** Total experience by underwriting type; and
- **Table 11** Total experience by issue year.

The appendix includes tables for the following policy years:

- 2005–2006 through 2009–2010;
- 2006–2007 through 2010–2011;
- 2007–2008 through 2011–2012;
- 2008–2009 through 2012–2013;
- 2009–2010 through 2013–2014; and

- 2005–2006 through 2013–2014.

Summary results are provided in tables C3 to C7 below. They provide overall results as well as more detailed A/E ratios, claims, and exposure information, in total and for each gender and smoking status. The tables summarize experience data by the following:

- Claim and exposure information: tables C3a—C3e;
- Face amount band and illness grouping: tables C4a—C4r;
- Duration (overall and for the three most prevalent illnesses): tables C5a—C5i;
- Type of underwriting and policy/issue year: tables C6a—C6c; and
- Return of premium feature: tables C7a—C7i.

Following each section of tables are key observations on the results.

The groups of illnesses used in tables C4a to C4r are

- Cancer: Life-Threatening Cancer, Benign Brain Tumor, Aplastic Anaemia<sup>b</sup>;
- Cardio: Heart Attack, Coronary Artery Bypass, Aortic Surgery, Stroke, Heart Valve Replacement;
- Organ: Kidney/Renal Failure, Major/Vital Organ Failure/Transplant;
- Neuro: Multiple Sclerosis, Parkinson's, Alzheimer's, ALS/Motor Neuron Disease;
- Accident/Infectious: Blindness, Coma, Deafness, Loss of Limbs/Dismemberment, Loss of Speech, Occupational HIV Infection, Paralysis, Severe Burns, Bacterial Meningitis;
- LOIE: Loss of Independent Existence; and
- Non-life-threatening: Early Prostate Cancer (Stages T1a and T1b), Ductal Breast Cancer, Shallow/Stage 1 Malignant Melanoma/Skin Cancer, Coronary Angioplasty, West Nile Virus, Lyme Disease, *Escherichia coli* Infection<sup>b</sup>.

**Table C3a. Summary Information (2005–2010)**

	Overall		Male		Female	
	Claims	Exposures	Claims	Exposures	Claims	Exposures
Number	3,393	1,337,045	1,677	651,741	1,717	685,304
Amount (\$,000)	289,673	117,251,976	161,376	64,327,416	128,296	52,924,560
Average	\$85,374	\$87,695	\$96,229	\$98,701	\$74,721	\$77,228

<sup>b</sup> Aplastic Anaemia, West Nile Virus, Lyme Disease, and *Escherichia coli* Infection were not addressed as part of the 2008 CANCI study. For the purpose of this study, a best estimate annual incidence rate of 0.005/1000 was used for these conditions. The effect of these estimates is considered immaterial.

**Table C3b. Summary Information (2006–2011)**

	Overall		Male		Female	
	Claims	Exposures	Claims	Exposures	Claims	Exposures
Number	3,838	1,484,407	1,892	720,443	1,945	763,965
Amount (\$,000)	328,412	130,943,998	180,585	71,708,332	147,827	59,235,666
Average	\$85,568	\$88,213	\$95,447	\$99,534	\$76,004	\$77,537

**Table C3c. Summary Information (2007–2012)**

	Overall		Male		Female	
	Claims	Exposures	Claims	Exposures	Claims	Exposures
Number	4,299	1,611,504	2,109	777,374	2,190	834,130
Amount (\$,000)	362,638	144,108,501	200,315	78,587,922	162,322	65,520,579
Average	\$84,354	\$89,425	\$94,981	\$101,094	\$74,120	\$78,550

**Table C3d. Summary Information (2008–2013)**

	Overall		Male		Female	
	Claims	Exposures	Claims	Exposures	Claims	Exposures
Number	4,742	1,744,213	2,326	836,192	2,415	908,021
Amount (\$,000)	402,089	157,547,934	224,003	85,530,238	178,085	72,017,696
Average	\$84,793	\$90,326	\$96,304	\$102,285	\$73,741	\$79,313



**Table C3e. Summary Information (2009–2014)**

	Overall		Male		Female	
	Claims	Exposures	Claims	Exposures	Claims	Exposures
Number	4,943	1,871,486	2,407	891,992	2,535	979,495
Amount (\$,000)	424,649	170,289,072	233,124	92,014,893	191,525	78,274,180
Average	\$85,909	\$90,991	\$96,852	\$103,157	\$75,552	\$79,913

General observations on the results shown in the tables above:

1. According to the CIA educational note on [setting expected mortality assumption in CGAAP life insurance valuation](#), in order to be considered credible to some degree, a study of this kind requires 2,000–3,000 claims. According to the same theory, full credibility is obtained when considering the overall results of the two most recent periods and the complete study period 2005–2014 (7,489 claims). Credibility is reduced as the experience is broken down into various subcategories.
2. For each period shown above, the average face amount of policies is higher but very close to, the average claim amount (within 6.1%). This can be partly explained by the fact that an increase in the average face amount insured (average exposure) can be observed over time, while claim payments are expected to occur, on average, several years after policy issue.
3. While more women than men owned CI policies (by count), men tended to purchase higher amounts and experienced overall higher average claim amounts.

Table C4a. Comparison of ratios (A/E) by number. Overall experience

Population—Overall	A/E by number						S.D.
	2005–10	2006–11	2007–12	2008–13	2009–14	2005–14	2005–14
<b>Total Experience</b>	<b>54.0</b>	<b>53.2</b>	<b>53.2</b>	<b>52.7</b>	<b>49.9</b>	<b>51.4</b>	<b>0.6</b>
Face Amount < \$50,000	50.5	51.6	52.0	51.3	48.5	49.1	1.1
Face Amount \$50,000–\$99,999	52.5	51.9	51.9	52.6	49.4	50.5	1.0
Face Amount \$100,000–\$249,999	57.6	54.5	54.4	53.1	50.2	53.0	1.0
Face Amount \$250,000 and over	57.9	60.1	58.4	58.1	56.1	56.8	2.6
Cancer Group	68.5	67.3	67.4	67.6	64.0	65.8	0.9
Cardio Group	37.5	38.3	38.4	36.9	34.7	35.6	0.9
Organ Group	9.8	9.5	10.2	10.7	9.6	9.1	1.4
Neuro Group	33.3	30.6	29.4	28.1	27.2	28.9	1.6
Accident/Infectious	44.0	49.4	48.9	43.2	42.0	45.2	5.2
LOIE	5.9	9.3	11.5	19.1	24.4	18.5	6.2
Non-life-threatening	21.8	15.8	15.2	14.0	12.0	14.6	3.5
<b>Total Smoker Experience</b>	<b>79.3</b>	<b>78.5</b>	<b>79.4</b>	<b>77.9</b>	<b>73.6</b>	<b>74.7</b>	<b>2.6</b>
Face Amount < \$50,000	74.9	77.0	76.8	75.7	75.4	73.7	3.9
Face Amount \$50,000–\$99,999	82.2	80.2	80.4	76.4	69.0	73.1	4.8
Face Amount \$100,000–\$249,999	84.1	77.9	81.6	82.4	74.5	77.2	5.7
Face Amount \$250,000 and over	89.3	91.1	93.5	95.5	87.7	87.7	17.5
Cancer Group	86.0	83.5	86.3	87.2	83.5	83.2	3.7
Cardio Group	87.3	90.0	87.3	83.4	73.4	77.7	5.0
Organ Group	5.0	13.8	17.7	21.2	16.4	12.6	5.6
Neuro Group	53.8	48.5	47.6	39.4	46.4	46.4	7.2
Accident/Infectious	39.5	36.3	34.7	21.9	20.9	32.5	14.5
LOIE	0.0	0.0	0.0	0.0	70.0	50.7	35.8
Non-life-threatening	22.5	23.9	19.8	12.6	7.2	13.5	13.5
<b>Total Non-smoker Experience</b>	<b>51.7</b>	<b>51.0</b>	<b>51.1</b>	<b>50.8</b>	<b>48.1</b>	<b>49.5</b>	<b>0.6</b>
Face Amount < \$50,000	46.7	47.8	48.4	47.9	45.0	45.7	1.1
Face Amount \$50,000–\$99,999	50.0	49.6	49.8	50.8	48.0	48.8	1.1
Face Amount \$100,000–\$249,999	56.2	53.4	53.1	51.7	49.1	51.8	1.0
Face Amount \$250,000 and over	56.7	59.0	57.1	56.8	55.0	55.8	2.6
Cancer Group	67.0	65.9	65.9	66.1	62.6	64.4	0.9
Cardio Group	33.1	33.9	34.4	33.3	31.8	32.2	0.9
Organ Group	10.3	9.1	9.5	9.8	9.0	8.8	1.4
Neuro Group	31.4	29.0	27.9	27.2	25.8	27.5	1.6
Accident/Infectious	44.5	50.8	50.3	45.3	44.0	46.5	5.5
LOIE	6.5	10.2	12.5	20.7	20.5	15.6	5.9
Non-life-threatening	21.7	15.3	14.8	14.1	12.3	14.7	3.7

Table C4b. Comparison of ratios (A/E) by number. Male experience

Population—Male	A/E by number						S.D.
	2005–10	2006–11	2007–12	2008–13	2009–14	2005–14	2005–14
<b>Total Experience</b>	<b>51.4</b>	<b>50.6</b>	<b>50.3</b>	<b>50.0</b>	<b>47.0</b>	<b>48.7</b>	<b>0.8</b>
Face Amount < \$50,000	47.2	48.6	48.6	47.6	47.0	47.2	1.6
Face Amount \$50,000–\$99,999	51.9	52.7	51.3	51.5	46.9	48.9	1.5
Face Amount \$100,000–\$249,999	52.8	48.8	49.1	48.6	45.6	48.6	1.3
Face Amount \$250,000 and over	57.0	57.3	57.7	57.6	53.0	53.6	2.9
Cancer Group	67.7	65.8	65.1	66.0	61.8	64.4	1.4
Cardio Group	40.2	41.1	41.7	40.3	37.9	38.6	1.1
Organ Group	12.9	12.8	11.7	11.3	9.5	10.0	1.9
Neuro Group	38.6	33.8	32.1	28.9	28.3	31.9	2.5
Accident/Infectious	40.7	44.8	46.7	40.9	42.5	44.3	6.9
LOIE	0.0	0.0	7.7	19.5	22.3	16.8	8.4
Non-life-threatening	24.4	14.6	13.9	11.6	9.5	13.7	4.4
<b>Total Smoker Experience</b>	<b>80.0</b>	<b>79.2</b>	<b>77.9</b>	<b>81.2</b>	<b>75.3</b>	<b>77.0</b>	<b>3.6</b>
Face Amount < \$50,000	74.7	72.1	67.7	69.8	72.9	74.1	5.6
Face Amount \$50,000–\$99,999	76.6	81.5	78.0	80.4	66.6	69.4	6.2
Face Amount \$100,000–\$249,999	90.8	86.6	93.0	97.0	86.6	89.0	7.8
Face Amount \$250,000 and over	95.6	90.9	88.4	101.1	93.0	90.9	20.3
Cancer Group	77.1	73.5	72.7	86.7	83.7	82.3	5.6
Cardio Group	94.2	97.0	95.9	90.8	79.6	84.0	6.0
Organ Group	7.6	14.0	13.4	19.3	12.4	11.4	6.6
Neuro Group	78.0	69.9	65.4	53.3	54.4	59.6	12.2
Accident/Infectious	62.6	57.7	55.3	35.0	33.3	51.7	23.1
LOIE	0.0	0.0	0.0	0.0	62.5	45.2	45.2
Non-life-threatening	23.3	23.0	19.0	9.6	5.5	12.4	16.1
<b>Total Non-smoker Experience</b>	<b>48.8</b>	<b>48.0</b>	<b>48.0</b>	<b>47.4</b>	<b>44.7</b>	<b>46.4</b>	<b>0.8</b>
Face Amount < \$50,000	42.7	44.8	45.7	44.3	43.4	43.1	1.7
Face Amount \$50,000–\$99,999	49.6	50.1	49.0	49.0	45.3	47.1	1.5
Face Amount \$100,000–\$249,999	50.6	46.7	46.7	46.0	43.5	46.4	1.3
Face Amount \$250,000 and over	55.4	56.0	56.5	56.0	51.6	52.2	3.0
Cancer Group	66.9	65.1	64.4	64.3	60.1	62.9	1.4
Cardio Group	35.2	36.2	37.0	36.2	34.7	34.9	1.1
Organ Group	13.5	12.7	11.5	10.6	9.2	9.9	1.9
Neuro Group	34.7	30.3	29.1	26.8	26.2	29.4	2.5
Accident/Infectious	37.9	43.2	45.7	41.5	43.5	43.4	7.2
LOIE	0.0	0.0	8.5	21.5	18.4	13.9	8.0
Non-life-threatening	24.5	14.0	13.5	11.7	9.8	13.8	4.5

Table C4c. Comparison of ratios (A/E) by number. Female experience

Population—Female	A/E by number						S.D.
	2005–10	2006–11	2007–12	2008–13	2009–14	2005–14	2005–14
<b>Total Experience</b>	<b>56.7</b>	<b>56.0</b>	<b>56.3</b>	<b>55.7</b>	<b>53.0</b>	<b>54.2</b>	<b>0.9</b>
Face Amount < \$50,000	53.3	54.2	54.8	54.3	49.8	50.8	1.5
Face Amount \$50,000–\$99,999	53.0	51.2	52.5	53.7	51.8	52.1	1.5
Face Amount \$100,000–\$249,999	63.5	61.7	61.2	58.7	56.0	58.5	1.6
Face Amount \$250,000 and over	60.4	67.8	60.2	59.5	63.9	65.4	5.3
Cancer Group	69.1	68.3	69.1	68.8	65.6	66.8	1.2
Cardio Group	30.0	30.4	29.5	27.9	26.1	27.4	1.5
Organ Group	4.9	4.3	7.8	9.8	9.8	7.6	2.0
Neuro Group	29.4	28.2	27.5	27.5	26.4	26.7	2.0
Accident/Infectious	48.1	55.1	51.5	46.0	41.5	46.3	7.7
LOIE	11.8	18.6	15.1	18.7	26.3	20.1	9.0
Non-life-threatening	17.6	17.7	17.2	17.9	15.9	16.2	6.0
<b>Total Smoker Experience</b>	<b>78.5</b>	<b>77.7</b>	<b>81.1</b>	<b>74.0</b>	<b>71.6</b>	<b>71.8</b>	<b>3.8</b>
Face Amount < \$50,000	75.1	81.6	85.4	81.2	77.7	73.4	5.4
Face Amount \$50,000–\$99,999	89.1	78.7	83.4	71.4	72.1	77.7	7.4
Face Amount \$100,000–\$249,999	72.6	63.0	62.0	57.3	53.6	57.0	8.1
Face Amount \$250,000 and over	69.0	91.7	110.9	75.8	69.4	76.6	34.3
Cancer Group	92.8	91.0	96.8	87.5	83.3	83.9	5.0
Cardio Group	65.3	67.9	60.5	60.5	54.7	58.1	8.8
Organ Group	0.0	13.6	26.1	25.2	24.4	14.9	10.5
Neuro Group	34.0	30.8	32.8	27.7	39.7	35.3	8.6
Accident/Infectious	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LOIE	0.0	0.0	0.0	0.0	79.5	57.7	57.7
Non-life-threatening	21.1	25.6	21.4	18.1	10.5	15.5	24.5
<b>Total Non-smoker Experience</b>	<b>54.8</b>	<b>54.3</b>	<b>54.4</b>	<b>54.4</b>	<b>51.7</b>	<b>52.9</b>	<b>0.9</b>
Face Amount < \$50,000	50.1	50.3	50.6	50.9	46.4	47.8	1.6
Face Amount \$50,000–\$99,999	50.4	49.3	50.5	52.5	50.5	50.4	1.5
Face Amount \$100,000–\$249,999	63.1	61.7	61.1	58.8	56.1	58.5	1.6
Face Amount \$250,000 and over	60.1	67.1	58.7	59.0	63.7	65.1	5.3
Cancer Group	67.1	66.5	67.0	67.4	64.3	65.5	1.2
Cardio Group	27.2	27.6	27.2	25.6	24.3	25.3	1.5
Organ Group	5.3	3.5	6.3	8.6	8.7	7.0	2.0
Neuro Group	29.0	28.0	27.0	27.5	25.5	26.1	2.0
Accident/Infectious	52.5	59.9	55.7	49.5	44.5	50.0	8.3
LOIE	12.8	20.1	16.2	20.0	22.5	17.3	8.6
Non-life-threatening	17.4	17.2	17.0	17.9	16.2	16.2	6.2

Table C4d. Comparison of ratios (A/E) by amount. Overall experience

Population—Overall	A/E by amount					
	2005–10	2006–11	2007–12	2008–13	2009–14	2005–14
<b>Total Experience</b>	<b>55.8</b>	<b>54.7</b>	<b>53.1</b>	<b>52.3</b>	<b>49.6</b>	<b>52.0</b>
Face Amount < \$50,000	51.4	52.7	52.7	51.6	48.3	49.6
Face Amount \$50,000–\$99,999	52.3	51.8	52.0	52.5	49.3	50.5
Face Amount \$100,000–\$249,999	57.5	54.6	53.5	52.6	49.8	52.6
Face Amount \$250,000 and over	56.9	58.2	53.4	51.7	49.9	52.7
Cancer Group	72.1	71.4	69.7	68.9	65.6	68.3
Cardio Group	35.5	34.3	33.7	32.9	31.9	33.1
Organ Group	7.9	7.4	7.4	8.5	7.4	6.9
Neuro Group	47.3	42.0	37.3	36.0	31.4	37.1
Accident/Infectious	50.9	64.2	59.5	51.7	41.8	48.6
LOIE	13.7	38.2	38.0	44.0	44.0	33.2
Non-life-threatening	23.6	16.0	16.5	17.4	15.2	17.2
<b>Total Smoker Experience</b>	<b>83.2</b>	<b>80.9</b>	<b>80.7</b>	<b>79.8</b>	<b>74.4</b>	<b>76.9</b>
Face Amount < \$50,000	78.3	81.6	80.1	78.8	78.3	77.9
Face Amount \$50,000–\$99,999	83.3	82.1	82.3	77.5	69.2	73.8
Face Amount \$100,000–\$249,999	84.7	79.7	83.1	83.8	76.6	78.5
Face Amount \$250,000 and over	84.6	81.1	72.4	74.7	73.7	77.4
Cancer Group	92.7	86.2	86.2	86.7	81.6	86.0
Cardio Group	84.3	88.7	89.2	88.1	78.2	77.9
Organ Group	2.0	6.2	7.6	13.6	11.4	8.1
Neuro Group	70.3	69.4	66.7	58.8	61.8	62.3
Accident/Infectious	61.8	46.9	35.2	16.4	15.4	39.3
LOIE	0.0	0.0	0.0	0.0	58.0	42.0
Non-life-threatening	16.6	19.9	16.5	10.5	8.2	12.1
<b>Total Non-smoker Experience</b>	<b>54.2</b>	<b>53.2</b>	<b>51.6</b>	<b>50.8</b>	<b>48.3</b>	<b>50.6</b>
Face Amount < \$50,000	47.7	48.8	49.2	48.3	44.8	46.1
Face Amount \$50,000–\$99,999	49.8	49.4	49.7	50.7	47.9	48.7
Face Amount \$100,000–\$249,999	56.1	53.3	52.1	51.2	48.6	51.4
Face Amount \$250,000 and over	55.9	57.4	52.8	50.9	49.1	51.9
Cancer Group	70.9	70.6	68.8	67.9	64.8	67.3
Cardio Group	32.6	31.2	30.6	30.0	29.5	30.7
Organ Group	8.3	7.4	7.4	8.2	7.1	6.8
Neuro Group	45.8	40.3	35.6	34.7	29.8	35.7
Accident/Infectious	50.0	65.5	61.3	54.1	43.5	49.2
LOIE	14.6	40.6	40.4	46.7	43.2	32.6
Non-life-threatening	24.0	15.8	16.5	17.7	15.6	17.5

Table C4e. Comparison of ratios (A/E) by amount. Male experience

Population—Male	A/E by amount					
	2005–10	2006–11	2007–12	2008–13	2009–14	2005–14
<b>Total Experience</b>	<b>52.9</b>	<b>51.1</b>	<b>49.8</b>	<b>49.5</b>	<b>46.3</b>	<b>48.8</b>
Face Amount < \$50,000	49.4	50.1	49.3	48.0	47.2	48.4
Face Amount \$50,000–\$99,999	51.3	52.0	50.6	50.6	46.4	48.4
Face Amount \$100,000–\$249,999	52.7	48.9	48.4	48.3	45.6	48.5
Face Amount \$250,000 and over	54.7	54.1	51.6	50.9	47.1	49.4
Cancer Group	70.9	69.8	68.3	68.8	64.1	66.5
Cardio Group	37.6	36.3	35.8	35.0	33.6	35.0
Organ Group	9.9	9.1	8.4	8.9	7.8	7.6
Neuro Group	59.4	46.7	40.9	38.2	34.1	44.2
Accident/Infectious	47.0	62.8	60.8	53.3	46.0	50.3
LOIE	0.0	0.0	11.4	24.3	23.7	17.7
Non-life-threatening	25.7	15.0	16.7	14.9	12.9	15.9
<b>Total Smoker Experience</b>	<b>85.8</b>	<b>83.6</b>	<b>81.9</b>	<b>87.0</b>	<b>79.0</b>	<b>81.4</b>
Face Amount < \$50,000	84.3	79.1	72.3	74.5	75.8	80.5
Face Amount \$50,000–\$99,999	77.5	82.2	78.1	80.3	65.9	69.5
Face Amount \$100,000–\$249,999	89.3	86.9	91.6	96.1	86.6	88.1
Face Amount \$250,000 and over	90.1	81.2	72.1	83.9	80.8	82.2
Cancer Group	92.4	83.9	78.4	93.1	85.3	89.8
Cardio Group	89.1	93.9	97.5	96.1	85.5	84.0
Organ Group	2.8	3.5	3.3	12.0	9.3	7.2
Neuro Group	94.4	93.5	87.5	77.6	74.4	81.1
Accident/Infectious	88.8	67.5	50.6	23.6	22.1	56.4
LOIE	0.0	0.0	0.0	0.0	44.4	32.1
Non-life-threatening	18.0	20.5	16.9	9.3	7.7	12.1
<b>Total Non-smoker Experience</b>	<b>50.8</b>	<b>49.1</b>	<b>48.0</b>	<b>47.4</b>	<b>44.6</b>	<b>46.9</b>
Face Amount < \$50,000	44.2	45.9	46.2	44.5	43.6	44.0
Face Amount \$50,000–\$99,999	48.8	49.2	48.2	48.1	44.8	46.6
Face Amount \$100,000–\$249,999	50.6	46.7	46.1	45.8	43.6	46.4
Face Amount \$250,000 and over	53.5	53.1	50.8	49.7	45.9	48.3
Cancer Group	69.6	69.0	67.8	67.5	62.9	65.2
Cardio Group	34.4	32.9	32.3	31.7	30.9	32.3
Organ Group	10.5	9.5	8.8	8.7	7.7	7.6
Neuro Group	57.0	43.6	38.0	35.8	31.8	41.9
Accident/Infectious	43.3	62.4	61.7	55.7	47.8	49.8
LOIE	0.0	0.0	12.2	25.9	22.3	16.7
Non-life-threatening	26.1	14.7	16.7	15.1	13.2	16.1

Table C4f. Comparison of ratios (A/E) by amount. Female experience

Population—Female	A/E by amount					
	2005–10	2006–11	2007–12	2008–13	2009–14	2005–14
<b>Total Experience</b>	<b>60.0</b>	<b>60.0</b>	<b>57.8</b>	<b>56.3</b>	<b>54.3</b>	<b>56.6</b>
Face Amount < \$50,000	53.1	54.8	55.4	54.7	49.2	50.6
Face Amount \$50,000–\$99,999	53.3	51.6	53.4	54.4	52.1	52.5
Face Amount \$100,000–\$249,999	63.8	62.0	60.1	58.1	55.2	58.0
Face Amount \$250,000 and over	63.6	71.0	59.1	54.3	57.8	62.6
Cancer Group	73.3	72.9	70.9	68.9	67.1	69.8
Cardio Group	27.3	26.5	25.6	25.1	25.4	26.0
Organ Group	3.5	3.6	5.4	7.7	6.5	5.4
Neuro Group	35.7	37.5	33.8	33.8	28.7	30.3
Accident/Infectious	57.3	66.5	57.4	49.2	35.4	45.8
LOIE	33.8	93.8	76.0	71.7	72.0	54.8
Non-life-threatening	19.5	18.1	16.0	22.7	20.0	20.0
<b>Total Smoker Experience</b>	<b>79.1</b>	<b>76.6</b>	<b>78.8</b>	<b>68.1</b>	<b>66.8</b>	<b>69.8</b>
Face Amount < \$50,000	72.7	84.0	87.5	83.0	80.6	75.3
Face Amount \$50,000–\$99,999	90.6	81.9	87.5	74.0	73.3	79.2
Face Amount \$100,000–\$249,999	76.5	66.9	68.0	61.8	58.8	61.5
Face Amount \$250,000 and over	65.1	80.9	73.4	39.3	46.4	59.5
Cancer Group	93.0	88.5	94.2	80.0	77.6	82.1
Cardio Group	63.3	65.9	52.8	53.2	46.8	51.5
Organ Group	0.0	13.3	18.8	17.8	17.0	10.6
Neuro Group	44.3	42.8	43.5	37.4	47.2	41.2
Accident/Infectious	0.0	0.0	0.0	0.0	0.0	0.0
LOIE	0.0	0.0	0.0	0.0	83.3	60.6
Non-life-threatening	13.4	18.6	15.6	13.2	9.6	12.0
<b>Total Non-smoker Experience</b>	<b>58.9</b>	<b>59.1</b>	<b>56.8</b>	<b>55.7</b>	<b>53.7</b>	<b>55.9</b>
Face Amount < \$50,000	50.6	51.2	51.6	51.4	45.7	47.7
Face Amount \$50,000–\$99,999	50.6	49.5	51.2	53.1	50.8	50.7
Face Amount \$100,000–\$249,999	63.2	61.8	59.8	58.0	55.0	57.8
Face Amount \$250,000 and over	63.6	70.7	58.6	54.7	58.1	62.6
Cancer Group	72.2	72.1	69.7	68.4	66.6	69.2
Cardio Group	25.4	24.5	24.3	23.8	24.5	24.8
Organ Group	3.7	3.0	4.6	7.2	6.0	5.1
Neuro Group	35.2	37.2	33.3	33.6	27.8	29.7
Accident/Infectious	60.9	70.6	60.6	51.8	37.2	48.3
LOIE	35.7	98.9	79.9	75.2	71.4	54.5
Non-life-threatening	19.8	18.1	16.0	23.1	20.5	20.3

**Table C4g. Comparison of ratios (A/E) by number and amount.  
Overall experience for policy years 2005–2006 through 2013–2014**

Population—Overall	A/E by number			A/E by amount		
	Claims	Exposures	A/E	Claims \$	Exposures \$	A/E
<b>Total Experience</b>	<b>7,489</b>	<b>2,882,775</b>	<b>51.4</b>	<b>644,197,121</b>	<b>258,670,987,467</b>	<b>52.0</b>
Face Amount < \$50,000	1,948	621,466	49.1	45,873,914	14,731,107,728	49.6
Face Amount \$50,000–\$99,999	2,336	916,158	50.5	125,228,919	49,459,073,501	50.5
Face Amount \$100,000–\$249,999	2,722	1,177,938	53.0	310,241,272	134,494,009,189	52.6
Face Amount \$250,000 and over	483	167,212	56.8	162,853,016	59,986,797,049	52.7
Cancer Group	5,495	2,879,732	65.8	467,658,348	258,663,759,973	68.3
Cardio Group	1,508	2,852,934	35.6	126,564,717	258,542,448,541	33.1
Organ Group	43	2,727,247	9.1	2,964,977	254,781,184,007	6.9
Neuro Group	340	2,757,049	28.9	36,481,676	254,771,001,522	37.1
Accident/Infectious	77	2,763,871	45.2	7,382,478	255,227,347,816	48.6
LOIE	9	443,497	18.5	1,380,000	69,953,925,652	33.2
Non-life-threatening	17	279,886	14.6	1,822,425	29,442,898,563	17.2
<b>Total Smoker Experience</b>	<b>801</b>	<b>269,370</b>	<b>74.7</b>	<b>48,985,288</b>	<b>17,577,864,620</b>	<b>76.9</b>
Face Amount < \$50,000	359	99,173	73.7	7,998,609	2,166,918,577	77.9
Face Amount \$50,000–\$99,999	236	89,136	73.1	12,740,381	4,794,847,478	73.8
Face Amount \$100,000–\$249,999	180	74,091	77.2	20,511,298	8,226,235,500	78.5
Face Amount \$250,000 and over	25	6,970	87.7	7,735,000	2,389,863,064	77.4
Cancer Group	505	268,998	83.2	29,742,117	17,577,031,309	86.0
Cardio Group	242	264,965	77.7	15,186,921	17,552,848,386	77.9
Organ Group	5	252,946	12.6	210,000	17,237,255,699	8.1
Neuro Group	41	255,301	46.4	3,287,250	17,237,015,699	62.3
Accident/Infectious	5	256,630	32.5	400,000	17,290,418,125	39.3
LOIE	2	39,969	50.7	100,000	4,612,471,550	42.0
Non-life-threatening	1	18,469	13.5	59,000	1,660,303,025	12.1
<b>Total Non-smoker Experience</b>	<b>6,688</b>	<b>2,613,404</b>	<b>49.5</b>	<b>595,211,833</b>	<b>241,093,122,848</b>	<b>50.6</b>
Face Amount < \$50,000	1,588	522,293	45.7	37,875,305	12,564,189,151	46.1
Face Amount \$50,000–\$99,999	2,100	827,022	48.8	112,488,538	44,664,226,024	48.7
Face Amount \$100,000–\$249,999	2,542	1,103,847	51.8	289,729,974	126,267,773,689	51.4
Face Amount \$250,000 and over	458	160,242	55.8	155,118,016	57,596,933,985	51.9
Cancer Group	4,990	2,610,734	64.4	437,916,231	241,086,728,664	67.3
Cardio Group	1,266	2,587,969	32.2	111,377,796	240,989,600,155	30.7
Organ Group	38	2,474,302	8.8	2,754,977	237,543,928,308	6.8
Neuro Group	299	2,501,748	27.5	33,194,426	237,533,985,822	35.7
Accident/Infectious	72	2,507,241	46.5	6,982,478	237,936,929,691	49.2
LOIE	7	403,528	15.6	1,280,000	65,341,454,102	32.6
Non-life-threatening	16	261,418	14.7	1,763,425	27,782,595,538	17.5



**Table C4h. Comparison of ratios (A/E) by number and amount.  
Male experience for policy years 2005–2006 through 2013–2014**

Population—Male	A/E by number			A/E by amount		
	Claims	Exposures	A/E	Claims \$	Exposures \$	A/E
<b>Total Experience</b>	<b>3,677</b>	<b>1,386,353</b>	<b>48.7</b>	<b>355,061,713</b>	<b>140,568,381,402</b>	<b>48.8</b>
Face Amount < \$50,000	850	254,915	47.2	20,349,045	6,036,066,657	48.4
Face Amount \$50,000–\$99,999	1,106	411,994	48.9	59,047,017	22,394,170,014	48.4
Face Amount \$100,000–\$249,999	1,391	606,532	48.6	161,622,635	70,193,216,529	48.5
Face Amount \$250,000 and over	330	112,913	53.6	114,043,016	41,944,928,203	49.4
Cancer Group	2,244	1,384,870	64.4	219,793,323	140,563,833,865	66.5
Cardio Group	1,191	1,371,774	38.6	105,550,338	140,512,210,557	35.0
Organ Group	29	1,307,612	10.0	2,209,977	138,368,554,441	7.6
Neuro Group	158	1,322,240	31.9	21,316,622	138,364,213,485	44.2
Accident/Infectious	41	1,326,207	44.3	4,677,478	138,618,619,770	50.3
LOIE	4	202,191	16.8	430,000	38,248,153,642	17.7
Non-life-threatening	10	137,313	13.7	1,131,475	15,817,622,441	15.9
<b>Total Smoker Experience</b>	<b>450</b>	<b>150,335</b>	<b>77.0</b>	<b>31,936,020</b>	<b>10,969,015,438</b>	<b>81.4</b>
Face Amount < \$50,000	173	47,083	74.1	4,038,879	1,045,211,029	80.5
Face Amount \$50,000–\$99,999	125	50,419	69.4	6,702,723	2,723,870,546	69.5
Face Amount \$100,000–\$249,999	131	47,483	89.0	14,719,418	5,325,094,147	88.1
Face Amount \$250,000 and over	20	5,350	90.9	6,475,000	1,874,839,715	82.2
Cancer Group	218	150,150	82.3	15,730,977	10,968,501,185	89.8
Cardio Group	198	148,112	84.0	13,315,793	10,957,218,630	84.0
Organ Group	3	141,203	11.4	135,000	10,772,163,292	7.2
Neuro Group	24	142,537	59.6	2,262,250	10,772,163,292	81.1
Accident/Infectious	5	143,427	51.7	400,000	10,807,083,474	56.4
LOIE	1	22,232	45.2	50,000	2,959,081,088	32.1
Non-life-threatening	1	10,588	12.4	42,000	1,036,133,076	12.1
<b>Total Non-smoker Experience</b>	<b>3,227</b>	<b>1,236,018</b>	<b>46.4</b>	<b>323,125,693</b>	<b>129,599,365,964</b>	<b>46.9</b>
Face Amount < \$50,000	677	207,832	43.1	16,310,166	4,990,855,628	44.0
Face Amount \$50,000–\$99,999	981	361,575	47.1	52,344,294	19,670,299,468	46.6
Face Amount \$100,000–\$249,999	1,260	559,049	46.4	146,903,217	64,868,122,381	46.4
Face Amount \$250,000 and over	310	107,563	52.2	107,568,016	40,070,088,487	48.3
Cancer Group	2,026	1,234,720	62.9	204,062,346	129,595,332,680	65.2
Cardio Group	993	1,223,662	34.9	92,234,545	129,554,991,927	32.3
Organ Group	26	1,166,409	9.9	2,074,977	127,596,391,149	7.6
Neuro Group	134	1,179,703	29.4	19,054,372	127,592,050,193	41.9
Accident/Infectious	36	1,182,780	43.4	4,277,478	127,811,536,296	49.8
LOIE	3	179,959	13.9	380,000	35,289,072,554	16.7
Non-life-threatening	9	126,725	13.8	1,089,475	14,781,489,365	16.1

**Table C4i. Comparison of ratios (A/E) by number and amount.  
Female experience for policy years 2005–2006 through 2013–2014**

Population—Female	A/E by number			A/E by amount		
	Claims	Exposures	A/E	Claims \$	Exposures \$	A/E
<b>Total Experience</b>	<b>3,812</b>	<b>1,496,422</b>	<b>54.2</b>	<b>289,135,408</b>	<b>118,102,606,065</b>	<b>56.6</b>
Face Amount < \$50,000	1,098	366,552	50.8	25,524,869	8,695,041,071	50.6
Face Amount \$50,000–\$99,999	1,231	504,164	52.1	66,181,902	27,064,903,487	52.5
Face Amount \$100,000–\$249,999	1,331	571,407	58.5	148,618,637	64,300,792,660	58.0
Face Amount \$250,000 and over	153	54,299	65.4	48,810,000	18,041,868,846	62.6
Cancer Group	3,251	1,494,862	66.8	247,865,025	118,099,926,109	69.8
Cardio Group	317	1,481,160	27.4	21,014,379	118,030,237,984	26.0
Organ Group	14	1,419,635	7.6	755,000	116,412,629,567	5.4
Neuro Group	182	1,434,809	26.7	15,165,054	116,406,788,037	30.3
Accident/Infectious	36	1,437,664	46.3	2,705,000	116,608,728,046	45.8
LOIE	5	241,306	20.1	950,000	31,705,772,010	54.8
Non-life-threatening	7	142,574	16.2	690,950	13,625,276,122	20.0
<b>Total Smoker Experience</b>	<b>351</b>	<b>119,036</b>	<b>71.8</b>	<b>17,049,268</b>	<b>6,608,849,181</b>	<b>69.8</b>
Face Amount < \$50,000	186	52,090	73.4	3,959,730	1,121,707,548	75.3
Face Amount \$50,000–\$99,999	111	38,717	77.7	6,037,658	2,070,976,931	79.2
Face Amount \$100,000–\$249,999	49	26,609	57.0	5,791,880	2,901,141,353	61.5
Face Amount \$250,000 and over	5	1,620	76.6	1,260,000	515,023,349	59.5
Cancer Group	287	118,848	83.9	14,011,140	6,608,530,124	82.1
Cardio Group	44	116,853	58.1	1,871,128	6,595,629,755	51.5
Organ Group	2	111,742	14.9	75,000	6,465,092,407	10.6
Neuro Group	17	112,764	35.3	1,025,000	6,464,852,407	41.2
Accident/Infectious	0	113,203	0.0	0	6,483,334,651	0.0
LOIE	1	17,736	57.7	50,000	1,653,390,463	60.6
Non-life-threatening	0	7,881	15.5	17,000	624,169,949	12.0
<b>Total Non-smoker Experience</b>	<b>3,461</b>	<b>1,377,386</b>	<b>52.9</b>	<b>272,086,140</b>	<b>111,493,756,884</b>	<b>55.9</b>
Face Amount < \$50,000	912	314,462	47.8	21,565,139	7,573,333,523	47.7
Face Amount \$50,000–\$99,999	1,119	465,447	50.4	60,144,244	24,993,926,556	50.7
Face Amount \$100,000–\$249,999	1,282	544,798	58.5	142,826,757	61,399,651,307	57.8
Face Amount \$250,000 and over	148	52,679	65.1	47,550,000	17,526,845,497	62.6
Cancer Group	2,964	1,376,015	65.5	233,853,885	111,491,395,984	69.2
Cardio Group	273	1,364,307	25.3	19,143,251	111,434,608,228	24.8
Organ Group	12	1,307,893	7.0	680,000	109,947,537,159	5.1
Neuro Group	165	1,322,045	26.1	14,140,054	109,941,935,630	29.7
Accident/Infectious	36	1,324,461	50.0	2,705,000	110,125,393,395	48.3
LOIE	4	223,570	17.3	900,000	30,052,381,548	54.5
Non-life-threatening	7	134,693	16.2	673,950	13,001,106,173	20.3

Table C4j. Comparison of ratios (A/E) by number and face band. Overall experience

<b>Population—Overall</b>	<b>A/E by number</b>						<b>S.D.</b>
<b>Under \$50,000</b>	<b>2005–10</b>	<b>2006–11</b>	<b>2007–12</b>	<b>2008–13</b>	<b>2009–14</b>	<b>2005–14</b>	<b>2005–14</b>
<b>Total Experience</b>	<b>50.5</b>	<b>51.6</b>	<b>52.0</b>	<b>51.3</b>	<b>48.5</b>	<b>49.1</b>	<b>1.1</b>
Cancer Group	61.7	62.2	62.4	63.3	59.9	60.5	1.6
Cardio Group	38.5	41.9	42.6	38.7	36.0	36.8	1.8
Organ Group	14.9	13.5	16.0	13.7	13.1	13.7	3.5
Neuro Group	30.6	29.7	28.9	26.3	25.9	26.4	2.9
<b>\$50,000–\$99,999</b>	<b>2005–10</b>	<b>2006–11</b>	<b>2007–12</b>	<b>2008–13</b>	<b>2009–14</b>	<b>2005–14</b>	<b>2005–14</b>
<b>Total Experience</b>	<b>52.5</b>	<b>51.9</b>	<b>51.9</b>	<b>52.6</b>	<b>49.4</b>	<b>50.5</b>	<b>1.0</b>
Cancer Group	64.4	63.7	64.9	66.2	63.6	64.1	1.5
Cardio Group	40.5	40.9	38.6	38.6	33.6	35.9	1.6
Organ Group	9.1	10.8	12.1	13.2	12.0	10.1	2.6
Neuro Group	32.6	27.5	26.0	25.2	22.1	26.2	2.7
<b>\$100,000–\$249,999</b>	<b>2005–10</b>	<b>2006–11</b>	<b>2007–12</b>	<b>2008–13</b>	<b>2009–14</b>	<b>2005–14</b>	<b>2005–14</b>
<b>Total Experience</b>	<b>57.6</b>	<b>54.5</b>	<b>54.4</b>	<b>53.1</b>	<b>50.2</b>	<b>53.0</b>	<b>1.0</b>
Cancer Group	77.5	72.9	72.1	70.5	65.3	69.9	1.6
Cardio Group	33.4	33.9	36.2	35.0	35.1	34.6	1.5
Organ Group	7.3	6.5	5.8	7.1	5.7	6.0	1.8
Neuro Group	33.6	30.2	29.1	29.1	30.5	30.9	2.7
<b>\$250,000+</b>	<b>2005–10</b>	<b>2006–11</b>	<b>2007–12</b>	<b>2008–13</b>	<b>2009–14</b>	<b>2005–14</b>	<b>2005–14</b>
<b>Total Experience</b>	<b>57.9</b>	<b>60.1</b>	<b>58.4</b>	<b>58.1</b>	<b>56.1</b>	<b>56.8</b>	<b>2.6</b>
Cancer Group	75.0	81.6	80.0	79.7	77.7	77.5	4.2
Cardio Group	41.3	34.3	32.1	32.9	32.1	34.9	3.4
Organ Group	7.6	6.6	5.8	10.3	9.3	6.4	4.5
Neuro Group	51.2	56.6	54.2	47.3	41.9	43.9	8.3

Table C4k. Comparison of ratios (A/E) by number and face band. Male experience

Population—Male	A/E by number						S.D.
<b>Under \$50,000</b>	<b>2005–10</b>	<b>2006–11</b>	<b>2007–12</b>	<b>2008–13</b>	<b>2009–14</b>	<b>2005–14</b>	<b>2005–14</b>
<b>Total Experience</b>	<b>47.2</b>	<b>48.6</b>	<b>48.6</b>	<b>47.6</b>	<b>47.0</b>	<b>47.2</b>	<b>1.6</b>
Cancer Group	57.5	56.6	57.0	59.1	58.2	58.0	2.6
Cardio Group	40.1	44.9	45.1	40.9	40.1	40.1	2.4
Organ Group	17.1	18.6	17.9	14.3	11.0	15.4	5.1
Neuro Group	39.0	34.1	31.5	23.8	26.2	30.1	5.1
<b>\$50,000–\$99,999</b>	<b>2005–10</b>	<b>2006–11</b>	<b>2007–12</b>	<b>2008–13</b>	<b>2009–14</b>	<b>2005–14</b>	<b>2005–14</b>
<b>Total Experience</b>	<b>51.9</b>	<b>52.7</b>	<b>51.3</b>	<b>51.5</b>	<b>46.9</b>	<b>48.9</b>	<b>1.5</b>
Cancer Group	65.2	67.4	66.2	67.0	63.8	65.1	2.5
Cardio Group	45.7	45.5	43.6	43.3	36.5	39.4	2.1
Organ Group	15.5	16.1	14.5	15.1	12.1	11.5	3.6
Neuro Group	31.2	28.2	24.8	23.1	19.8	25.4	4.2
<b>\$100,000–\$249,999</b>	<b>2005–10</b>	<b>2006–11</b>	<b>2007–12</b>	<b>2008–13</b>	<b>2009–14</b>	<b>2005–14</b>	<b>2005–14</b>
<b>Total Experience</b>	<b>52.8</b>	<b>48.8</b>	<b>49.1</b>	<b>48.6</b>	<b>45.6</b>	<b>48.6</b>	<b>1.3</b>
Cancer Group	75.4	68.1	65.6	65.6	58.9	65.6	2.2
Cardio Group	35.4	36.2	40.0	39.5	39.6	38.2	1.8
Organ Group	9.3	8.3	7.5	6.8	6.3	6.7	2.4
Neuro Group	39.4	30.9	30.9	30.0	30.2	32.7	4.1
<b>\$250,000+</b>	<b>2005–10</b>	<b>2006–11</b>	<b>2007–12</b>	<b>2008–13</b>	<b>2009–14</b>	<b>2005–14</b>	<b>2005–14</b>
<b>Total Experience</b>	<b>57.0</b>	<b>57.3</b>	<b>57.7</b>	<b>57.6</b>	<b>53.0</b>	<b>53.6</b>	<b>2.9</b>
Cancer Group	75.8	79.7	84.2	85.0	78.3	76.1	5.3
Cardio Group	41.9	36.5	32.3	32.1	29.7	33.7	3.6
Organ Group	9.5	8.2	7.3	13.1	11.9	8.1	5.7
Neuro Group	60.5	66.5	66.1	58.0	55.2	56.1	11.7

Table C4I. Comparison of ratios (A/E) by number and face band. Female experience

Population—Female	A/E by number						S.D.
<b>Under \$50,000</b>	<b>2005–10</b>	<b>2006–11</b>	<b>2007–12</b>	<b>2008–13</b>	<b>2009–14</b>	<b>2005–14</b>	<b>2005–14</b>
<b>Total Experience</b>	<b>53.3</b>	<b>54.2</b>	<b>54.8</b>	<b>54.3</b>	<b>49.8</b>	<b>50.8</b>	<b>1.5</b>
Cancer Group	64.2	65.4	65.6	65.8	61.0	62.0	2.0
Cardio Group	35.2	36.2	38.0	34.8	28.5	30.6	2.8
Organ Group	12.3	7.4	13.9	13.1	15.5	11.8	4.8
Neuro Group	25.7	27.1	27.4	27.7	25.7	24.3	3.4
<b>\$50,000–\$99,999</b>	<b>2005–10</b>	<b>2006–11</b>	<b>2007–12</b>	<b>2008–13</b>	<b>2009–14</b>	<b>2005–14</b>	<b>2005–14</b>
<b>Total Experience</b>	<b>53.0</b>	<b>51.2</b>	<b>52.5</b>	<b>53.7</b>	<b>51.8</b>	<b>52.1</b>	<b>1.5</b>
Cancer Group	63.9	61.4	64.1	65.7	63.6	63.4	2.0
Cardio Group	27.2	29.3	26.4	27.4	26.9	27.4	2.7
Organ Group	0.0	3.3	8.7	10.4	11.8	8.0	3.6
Neuro Group	33.5	27.0	26.7	26.5	23.6	26.7	3.4
<b>\$100,000–\$249,999</b>	<b>2005–10</b>	<b>2006–11</b>	<b>2007–12</b>	<b>2008–13</b>	<b>2009–14</b>	<b>2005–14</b>	<b>2005–14</b>
<b>Total Experience</b>	<b>63.5</b>	<b>61.7</b>	<b>61.2</b>	<b>58.7</b>	<b>56.0</b>	<b>58.5</b>	<b>1.6</b>
Cancer Group	79.2	76.8	77.4	74.5	70.7	73.5	2.2
Cardio Group	26.2	26.1	23.1	19.8	20.4	22.4	2.5
Organ Group	3.5	3.1	2.8	7.5	4.6	4.6	2.7
Neuro Group	28.7	29.6	27.7	28.3	30.8	29.3	3.6
<b>\$250,000+</b>	<b>2005–10</b>	<b>2006–11</b>	<b>2007–12</b>	<b>2008–13</b>	<b>2009–14</b>	<b>2005–14</b>	<b>2005–14</b>
<b>Total Experience</b>	<b>60.4</b>	<b>67.8</b>	<b>60.2</b>	<b>59.5</b>	<b>63.9</b>	<b>65.4</b>	<b>5.3</b>
Cancer Group	73.4	84.8	72.6	70.7	76.6	79.8	7.0
Cardio Group	36.5	18.2	30.6	39.0	48.6	43.6	10.9
Organ Group	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Neuro Group	33.8	38.1	32.4	27.9	18.3	21.9	9.8

Table C4m. Comparison of ratios (A/E) by amount and face band. Overall experience

<b>Population—Overall</b>	<b>A/E by amount</b>					
<b>Under \$50,000</b>	<b>2005–10</b>	<b>2006–11</b>	<b>2007–12</b>	<b>2008–13</b>	<b>2009–14</b>	<b>2005–14</b>
<b>Total Experience</b>	<b>51.4</b>	<b>52.7</b>	<b>52.7</b>	<b>51.6</b>	<b>48.3</b>	<b>49.6</b>
Cancer Group	62.0	62.4	62.6	63.1	59.0	60.4
Cardio Group	38.6	43.4	43.9	40.6	37.4	37.8
Organ Group	17.3	14.9	18.8	16.1	15.4	15.4
Neuro Group	37.1	35.6	31.7	27.2	25.5	28.9
<b>\$50,000–\$99,999</b>	<b>2005–10</b>	<b>2006–11</b>	<b>2007–12</b>	<b>2008–13</b>	<b>2009–14</b>	<b>2005–14</b>
<b>Total Experience</b>	<b>52.3</b>	<b>51.8</b>	<b>52.0</b>	<b>52.5</b>	<b>49.3</b>	<b>50.5</b>
Cancer Group	64.3	63.8	65.2	66.1	63.8	64.2
Cardio Group	39.6	40.0	37.7	37.8	32.6	35.0
Organ Group	8.5	10.0	12.1	13.0	11.9	9.8
Neuro Group	34.0	29.3	28.0	27.8	24.2	27.9
<b>\$100,000–\$249,999</b>	<b>2005–10</b>	<b>2006–11</b>	<b>2007–12</b>	<b>2008–13</b>	<b>2009–14</b>	<b>2005–14</b>
<b>Total Experience</b>	<b>57.5</b>	<b>54.6</b>	<b>53.5</b>	<b>52.6</b>	<b>49.8</b>	<b>52.6</b>
Cancer Group	77.3	72.6	70.6	69.7	65.0	69.6
Cardio Group	33.7	34.7	36.3	35.0	35.0	34.6
Organ Group	7.7	6.8	6.1	6.3	4.9	5.8
Neuro Group	33.9	30.4	27.9	29.0	28.7	29.9
<b>\$250,000+</b>	<b>2005–10</b>	<b>2006–11</b>	<b>2007–12</b>	<b>2008–13</b>	<b>2009–14</b>	<b>2005–14</b>
<b>Total Experience</b>	<b>56.9</b>	<b>58.2</b>	<b>53.4</b>	<b>51.7</b>	<b>49.9</b>	<b>52.7</b>
Cancer Group	72.2	79.5	74.4	71.6	70.6	71.9
Cardio Group	34.6	27.5	24.4	24.7	25.2	28.3
Organ Group	5.2	4.5	4.0	7.7	7.0	4.8
Neuro Group	93.5	81.1	67.2	60.0	44.5	62.9

Table C4n. Comparison of ratios (A/E) by amount and face band. Male experience

<b>Population—Male</b>	<b>A/E by amount</b>					
<b>Under \$50,000</b>	<b>2005–10</b>	<b>2006–11</b>	<b>2007–12</b>	<b>2008–13</b>	<b>2009–14</b>	<b>2005–14</b>
<b>Total Experience</b>	<b>49.4</b>	<b>50.1</b>	<b>49.3</b>	<b>48.0</b>	<b>47.2</b>	<b>48.4</b>
Cancer Group	59.0	57.2	57.6	58.9	58.0	58.7
Cardio Group	41.3	46.4	45.8	42.2	41.3	41.4
Organ Group	19.1	18.0	17.1	13.2	10.3	15.8
Neuro Group	52.2	47.0	37.3	26.2	27.2	36.2
<b>\$50,000–\$99,999</b>	<b>2005–10</b>	<b>2006–11</b>	<b>2007–12</b>	<b>2008–13</b>	<b>2009–14</b>	<b>2005–14</b>
<b>Total Experience</b>	<b>51.3</b>	<b>52.0</b>	<b>50.6</b>	<b>50.6</b>	<b>46.4</b>	<b>48.4</b>
Cancer Group	64.6	66.7	65.3	65.7	63.4	64.6
Cardio Group	44.8	44.4	42.4	42.2	35.4	38.4
Organ Group	14.4	14.9	14.9	15.3	12.4	11.5
Neuro Group	32.4	29.2	26.6	25.4	22.1	27.2
<b>\$100,000–\$249,999</b>	<b>2005–10</b>	<b>2006–11</b>	<b>2007–12</b>	<b>2008–13</b>	<b>2009–14</b>	<b>2005–14</b>
<b>Total Experience</b>	<b>52.7</b>	<b>48.9</b>	<b>48.4</b>	<b>48.3</b>	<b>45.6</b>	<b>48.5</b>
Cancer Group	75.2	67.7	64.4	65.3	59.4	65.7
Cardio Group	36.0	37.1	40.1	39.3	39.2	38.1
Organ Group	9.6	8.6	7.7	5.9	5.4	6.5
Neuro Group	37.5	29.4	28.6	29.9	29.0	31.4
<b>\$250,000+</b>	<b>2005–10</b>	<b>2006–11</b>	<b>2007–12</b>	<b>2008–13</b>	<b>2009–14</b>	<b>2005–14</b>
<b>Total Experience</b>	<b>54.7</b>	<b>54.1</b>	<b>51.6</b>	<b>50.9</b>	<b>47.1</b>	<b>49.4</b>
Cancer Group	70.5	77.3	77.8	77.5	72.1	70.4
Cardio Group	35.1	28.9	24.6	24.2	23.8	27.7
Organ Group	6.4	5.5	4.9	9.6	8.6	5.9
Neuro Group	109.4	81.8	67.2	58.6	48.7	72.9

Table C4o. Comparison of ratios (A/E) by amount and face band. Female experience

<b>Population—Female</b>	<b>A/E by amount</b>					
<b>Under \$50,000</b>	<b>2005–10</b>	<b>2006–11</b>	<b>2007–12</b>	<b>2008–13</b>	<b>2009–14</b>	<b>2005–14</b>
<b>Total Experience</b>	<b>53.1</b>	<b>54.8</b>	<b>55.4</b>	<b>54.7</b>	<b>49.2</b>	<b>50.6</b>
Cancer Group	63.7	65.4	65.5	65.5	59.6	61.4
Cardio Group	33.3	37.5	40.3	37.6	30.3	31.0
Organ Group	15.1	11.1	20.8	19.3	21.3	15.0
Neuro Group	28.5	29.0	28.6	27.8	24.5	24.7
<b>\$50,000–\$99,999</b>	<b>2005–10</b>	<b>2006–11</b>	<b>2007–12</b>	<b>2008–13</b>	<b>2009–14</b>	<b>2005–14</b>
<b>Total Experience</b>	<b>53.3</b>	<b>51.6</b>	<b>53.4</b>	<b>54.4</b>	<b>52.1</b>	<b>52.5</b>
Cancer Group	64.2	61.9	65.2	66.4	64.1	63.9
Cardio Group	26.5	28.8	26.1	27.1	25.9	26.5
Organ Group	0.0	3.0	8.1	9.8	11.1	7.5
Neuro Group	35.2	29.3	29.0	29.3	25.6	28.4
<b>\$100,000–\$249,999</b>	<b>2005–10</b>	<b>2006–11</b>	<b>2007–12</b>	<b>2008–13</b>	<b>2009–14</b>	<b>2005–14</b>
<b>Total Experience</b>	<b>63.8</b>	<b>62.0</b>	<b>60.1</b>	<b>58.1</b>	<b>55.2</b>	<b>58.0</b>
Cancer Group	79.1	76.8	75.8	73.5	69.7	72.8
Cardio Group	25.4	25.8	22.9	20.2	20.8	22.5
Organ Group	3.9	3.5	3.1	7.3	4.1	4.5
Neuro Group	30.9	31.3	27.4	28.3	28.5	28.6
<b>\$250,000+</b>	<b>2005–10</b>	<b>2006–11</b>	<b>2007–12</b>	<b>2008–13</b>	<b>2009–14</b>	<b>2005–14</b>
<b>Total Experience</b>	<b>63.6</b>	<b>71.0</b>	<b>59.1</b>	<b>54.3</b>	<b>57.8</b>	<b>62.6</b>
Cancer Group	75.6	83.7	67.6	60.2	67.9	75.0
Cardio Group	30.1	15.7	22.4	28.7	35.7	32.4
Organ Group	0.0	0.0	0.0	0.0	0.0	0.0
Neuro Group	60.3	79.6	67.2	62.8	36.3	42.7



**TableC4p. Comparison of ratios (A/E) by number and amount and face band.  
Overall experience for policy years 2005–2006 through 2013–2014**

<b>Population—Overall</b>	<b>A/E by number</b>			<b>A/E by amount</b>		
<b>Under \$50,000</b>	<b>Claims</b>	<b>Exposures</b>	<b>A/E</b>	<b>Claims \$</b>	<b>Exposures \$</b>	<b>A/E</b>
<b>Total Experience</b>	<b>1,948</b>	<b>621,466</b>	<b>49.1</b>	<b>45,874</b>	<b>14,731,108</b>	<b>49.6</b>
Cancer Group	1,425	620,776	60.5	33,065	14,724,926	60.4
Cardio Group	405	612,855	36.8	9,788	14,603,615	37.8
Organ Group	15	592,624	13.7	400	14,165,160	15.4
Neuro Group	85	592,611	26.4	2,158	14,164,720	28.9
<b>\$50,000–\$99,999</b>	<b>Claims</b>	<b>Exposures</b>	<b>A/E</b>	<b>Claims \$</b>	<b>Exposures \$</b>	<b>A/E</b>
<b>Total Experience</b>	<b>2,336</b>	<b>916,158</b>	<b>50.5</b>	<b>125,229</b>	<b>49,459,074</b>	<b>50.5</b>
Cancer Group	1,717	916,140	64.1	92,252	49,458,127	64.2
Cardio Group	473	916,140	35.9	24,785	49,458,127	35.0
Organ Group	15	897,353	10.1	790	48,426,751	9.8
Neuro Group	97	897,288	26.2	5,542	48,423,134	27.9
<b>\$100,000–\$249,999</b>	<b>Claims</b>	<b>Exposures</b>	<b>A/E</b>	<b>Claims \$</b>	<b>Exposures \$</b>	<b>A/E</b>
<b>Total Experience</b>	<b>2,722</b>	<b>1,177,938</b>	<b>53.0</b>	<b>310,241</b>	<b>134,494,009</b>	<b>52.6</b>
Cancer Group	2,013	1,177,937	69.9	228,922	134,493,909	69.6
Cardio Group	527	1,177,937	34.6	61,053	134,493,909	34.6
Organ Group	11	1,162,997	6.0	1,225	132,756,837	5.8
Neuro Group	130	1,162,936	30.9	14,361	132,750,711	29.9
<b>\$250,000+</b>	<b>Claims</b>	<b>Exposures</b>	<b>A/E</b>	<b>Claims \$</b>	<b>Exposures \$</b>	<b>A/E</b>
<b>Total Experience</b>	<b>483</b>	<b>167,212</b>	<b>56.8</b>	<b>162,853</b>	<b>59,986,797</b>	<b>52.7</b>
Cancer Group	340	167,212	77.5	113,420	59,986,797	71.9
Cardio Group	103	167,212	34.9	30,938	59,986,797	28.3
Organ Group	2	165,542	6.4	550	59,432,436	4.8
Neuro Group	28	165,542	43.9	14,420	59,432,436	62.9

**Table C4q. Comparison of ratios (A/E) by number and amount and face band.  
Male experience for policy years 2005–2006 through 2013–2014**

<b>Population—Male</b>	<b>A/E by number</b>			<b>A/E by amount</b>		
<b>Under \$50,000</b>	<b>Claims</b>	<b>Exposures</b>	<b>A/E</b>	<b>Claims \$</b>	<b>Exposures \$</b>	<b>A/E</b>
<b>Total Experience</b>	<b>850</b>	<b>254,915</b>	<b>47.2</b>	<b>20,349</b>	<b>6,036,067</b>	<b>48.4</b>
Cancer Group	507	254,531	58.0	11,811	6,032,305	58.7
Cardio Group	288	251,280	40.1	7,025	5,980,682	41.4
Organ Group	9	241,673	15.4	220	5,772,757	15.8
Neuro Group	35	241,673	30.1	981	5,772,757	36.2
<b>\$50,000–\$99,999</b>	<b>Claims</b>	<b>Exposures</b>	<b>A/E</b>	<b>Claims \$</b>	<b>Exposures \$</b>	<b>A/E</b>
<b>Total Experience</b>	<b>1,106</b>	<b>411,994</b>	<b>48.9</b>	<b>59,047</b>	<b>22,394,170</b>	<b>48.4</b>
Cancer Group	678	411,980	65.1	36,283	22,393,484	64.6
Cardio Group	367	411,980	39.4	19,314	22,393,484	38.4
Organ Group	10	402,579	11.5	540	21,873,544	11.5
Neuro Group	37	402,555	25.4	2,139	21,872,237	27.2
<b>\$100,000–\$249,999</b>	<b>Claims</b>	<b>Exposures</b>	<b>A/E</b>	<b>Claims \$</b>	<b>Exposures \$</b>	<b>A/E</b>
<b>Total Experience</b>	<b>1,391</b>	<b>606,532</b>	<b>48.6</b>	<b>161,623</b>	<b>70,193,217</b>	<b>48.5</b>
Cancer Group	849	606,531	65.6	99,010	70,193,117	65.7
Cardio Group	449	606,531	38.2	52,232	70,193,117	38.1
Organ Group	8	597,840	6.7	900	69,179,076	6.5
Neuro Group	63	597,810	32.7	7,026	69,176,042	31.4
<b>\$250,000+</b>	<b>Claims</b>	<b>Exposures</b>	<b>A/E</b>	<b>Claims \$</b>	<b>Exposures \$</b>	<b>A/E</b>
<b>Total Experience</b>	<b>330</b>	<b>112,913</b>	<b>53.6</b>	<b>114,043</b>	<b>41,944,928</b>	<b>49.4</b>
Cancer Group	210	112,913	76.1	72,690	41,944,928	70.4
Cardio Group	87	112,913	33.7	26,978	41,944,928	27.7
Organ Group	2	111,739	8.1	550	41,543,177	5.9
Neuro Group	23	111,739	56.1	11,170	41,543,177	72.9

**Table C4r. Comparison of ratios (A/E) by number and amount and face band.  
Female experience for policy years 2005–2006 through 2013–2014**

Population—Female	A/E by number			A/E by amount		
	Claims	Exposures	A/E	Claims \$	Exposures \$	A/E
<b>Under \$50,000</b>						
<b>Total Experience</b>	<b>1,098</b>	<b>366,552</b>	<b>50.8</b>	<b>25,525</b>	<b>8,695,041</b>	<b>50.6</b>
Cancer Group	918	366,245	62.0	21,255	8,692,621	61.4
Cardio Group	117	361,575	30.6	2,763	8,622,933	31.0
Organ Group	6	350,951	11.8	180	8,392,402	15.0
Neuro Group	50	350,938	24.3	1,177	8,391,962	24.7
<b>\$50,000–\$99,999</b>						
<b>Total Experience</b>	<b>1,231</b>	<b>504,164</b>	<b>52.1</b>	<b>66,182</b>	<b>27,064,903</b>	<b>52.5</b>
Cancer Group	1,039	504,160	63.4	55,969	27,064,643	63.9
Cardio Group	106	504,160	27.4	5,470	27,064,643	26.5
Organ Group	5	494,774	8.0	250	26,553,207	7.5
Neuro Group	60	494,733	26.7	3,403	26,550,898	28.4
<b>\$100,000–\$249,999</b>						
<b>Total Experience</b>	<b>1,331</b>	<b>571,407</b>	<b>58.5</b>	<b>148,619</b>	<b>64,300,793</b>	<b>58.0</b>
Cancer Group	1,164	571,407	73.5	129,911	64,300,793	72.8
Cardio Group	78	571,407	22.4	8,821	64,300,793	22.5
Organ Group	3	565,157	4.6	325	63,577,761	4.5
Neuro Group	67	565,126	29.3	7,335	63,574,669	28.6
<b>\$250,000+</b>						
<b>Total Experience</b>	<b>153</b>	<b>54,299</b>	<b>65.4</b>	<b>48,810</b>	<b>18,041,869</b>	<b>62.6</b>
Cancer Group	130	54,299	79.8	40,730	18,041,869	75.0
Cardio Group	16	54,299	43.6	3,960	18,041,869	32.4
Organ Group	0	53,803	0.0	0	17,889,259	0.0
Neuro Group	5	53,803	21.9	3,250	17,889,259	42.7

Observations on the results shown in tables C4a–C4r:

1. The Expected tables do not reflect the impact of underwriting and, as such, overall A/E figures are expected to be below 100%. Please see page 1 of this report for additional comments on the Expected tables.
2. Looking at the entire study period, the overall A/E figures of 51.4% (by number) and 52.0% (by amount) are reflective of a majority of policies in this study that are still in early policy durations.
3. The lower A/E results in the period 2009–2014 are believed to be impacted by a lag in claim reporting. A similar, but less pronounced, pattern could also be observed in the last CI claim study, which covered policy anniversaries 2003 to 2011. The following table shows the common period between the current and previous study and provides an order of magnitude of the incurred but not reported (IBNR) missing in the previous study:

<b>A/E by number – Overall experience</b>	Previous study	Current study	Ratio
Policy years 2005–2010	53.4	54.0	101.1%
Policy years 2006–2011	52.4	53.2	101.5%

4. Smokers experience higher incidence rates than non-smokers (both sets of A/E ratios are based on expected unismoke tables). For men, smokers experience about 66%/74% (by number/by amount) more claims than their non-smoking counterparts, while the difference is only about 36%/25% (by number/by amount) for women. The widest gap can be seen on the Cardio group (close to 150% higher risk) while the cancer group incidence is around 30% higher on insured smokers. That females are at a higher risk of developing cancer, relative to other conditions, helps to explain the gender difference when comparing incidence risk by smoking status.
5. The overall result (2005–2014) by amount is only slightly higher than by count. However, a more significant difference can be seen when looking at the cancer and the neurological (lower credibility) groups, therefore pointing to higher incidence rates at higher face amounts.
6. An increasing pattern in the A/E can be observed when examining the results by face amount band. This seems counterintuitive to what is expected, as additional underwriting tests are performed at higher face amounts. As indicated in the previous bullet, the pattern appears to be driven by the experience of the cancer and neurological (lower credibility) groups. Because the cancer risk is higher for females, relative to other conditions, the increasing A/E pattern by face amount is more pronounced for females. Notwithstanding the credibility on the higher face amount bands, it is too early to determine whether this is the result of antiselection or specific characteristics associated with the individuals who purchase policies with higher face amounts.
7. Some additional observations can also be made by illness group.
  - The Cancer group has the largest number of claims (5,495 of 7,489) and also the highest A/E ratio (65.8%) by number. When compared to the A/E on the Cardio group, we may conclude the information collected to evaluate the risk of cancer at the time of underwriting does not capture risk indicators of equal value.
  - Cardio claims have among the lowest A/E ratios (35.6% by number based on 1,508 claims), suggestive of a high predictive value of the risk indicators collected during the underwriting process.
  - The next largest number of non-accident claims is for neurological conditions, which also have a low A/E ratio (28.9% by number based on 340 claims), possibly indicating some success in underwriting such risks. Although not fully credible, the A/E ratio by amount (37.1%) is substantially higher than the A/E ratio of 28.9% by number, which points to higher incidence rates at higher face amounts as discussed in bullet 6 above.
  - The claims and exposures have been measured based on the percentage of the face amount of each policy (by number category) and actual dollar amount (by

amount category) paid/exposed. This mainly affected the non-life-threatening conditions where partial payments are provided.

- The results on the other conditions lack the appropriate credibility to present meaningful observations at this time.

Figures C1a to C1f show the average claim amounts of seven claim conditions. Male and female sample sizes are shown in parentheses. Error bars show  $\pm 2$  standard deviations. “Average” is the average claim amount of the seven claim conditions combined, shown in the last column of the figure and by the dashed horizontal lines.

Figure C1a. Average claim amount of seven claim conditions for 2005–2010

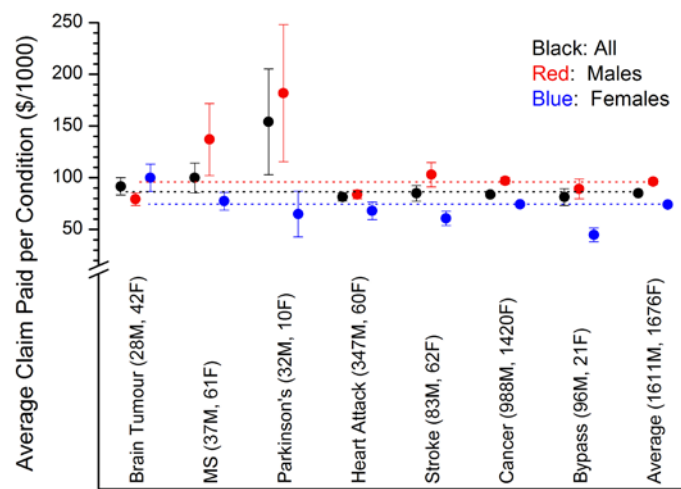


Figure C1b. Average claim amount of seven claim conditions for 2006–2011

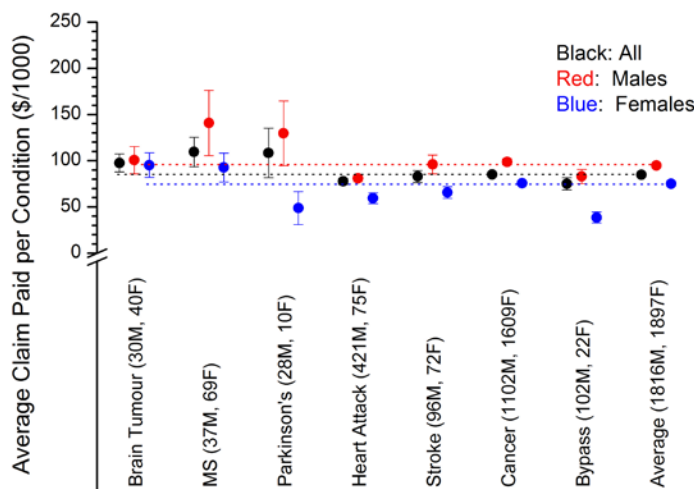


Figure C1c. Average claim amount of seven claim conditions for 2007–2012

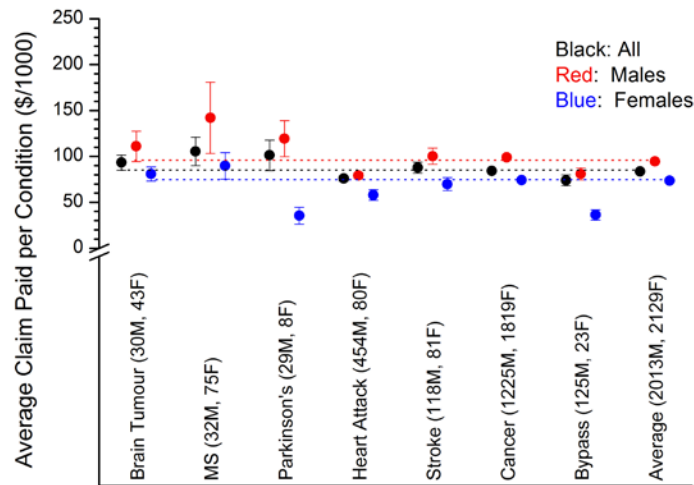


Figure C1d. Average claim amount of seven claim conditions for 2008–2013

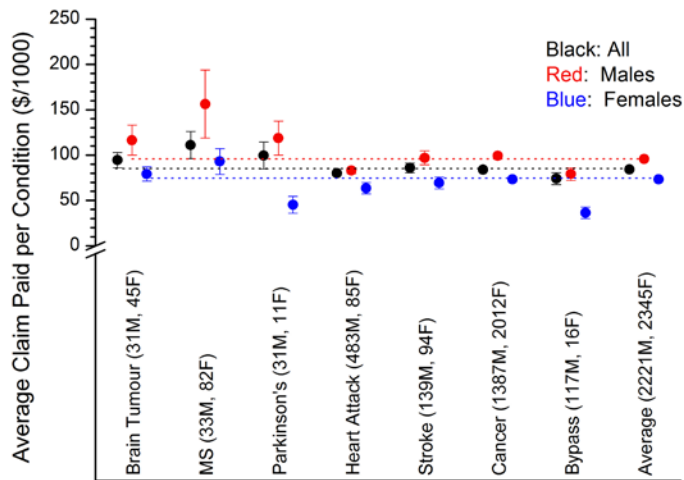


Figure C1e. Average claim amount of seven claim conditions for 2009–2014

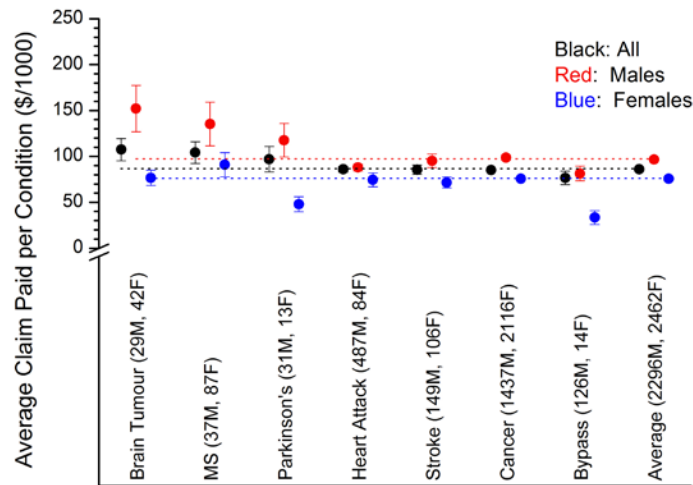
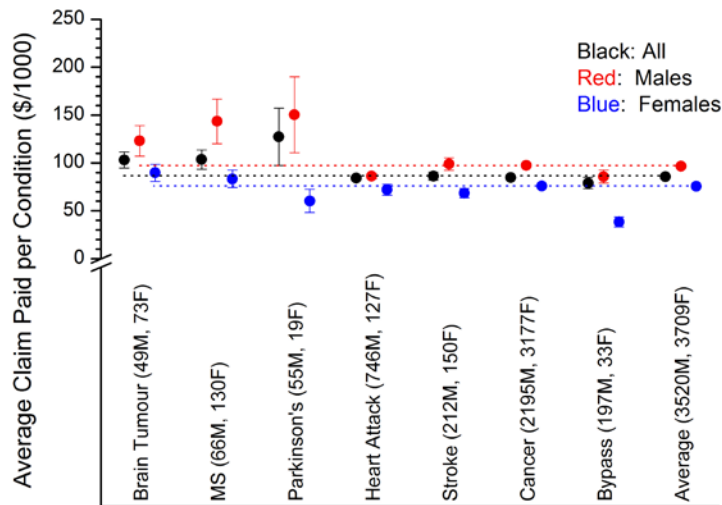


Figure C1f. Average claim amount of seven claim conditions for 2005–2014



Observation on figures C1a to C1f:

1. The higher variability in the claim amounts for Benign Brain Tumour (Brain Tumour), Parkinson’s, and Multiple Sclerosis (MS) can be explained in part by the lower number of claims. That the average claim amount for these conditions is higher than for other causes is in line with comment #5 following the C4 table series.

**Table C5a. Comparison of ratios (A/E) by number for durations 1 to 15+ and for durations 1 to 15+ for three illnesses. Overall Experience<sup>c</sup>**

Population—Overall	A/E by number						S.D.
	2005–10	2006–11	2007–12	2008–13	2009–14	2005–14	2005–14
Duration 1	27.4	27.1	26.3	25.8	21.9	25.2	1.4
Duration 2	49.3	49.5	47.8	50.9	47.1	48.2	1.9
Duration 3	56.2	54.2	53.4	53.6	52.4	54.0	2.0
Duration 4	56.7	54.4	54.7	54.2	49.7	53.5	1.9
Duration 5	57.0	56.7	54.6	54.8	51.8	54.6	2.0
Duration 6	60.7	57.5	56.2	54.3	53.5	56.2	2.0
Duration 7	62.0	60.4	60.4	58.0	55.8	57.5	2.1
Duration 8	55.0	53.1	55.2	54.7	52.4	54.4	2.1
Duration 9	57.1	55.0	55.0	54.3	52.2	53.3	2.2
Duration 10	65.5	62.2	60.1	58.3	54.4	55.5	2.4
Duration 11	65.5	59.5	62.8	56.9	52.7	54.0	2.9
Duration 12	84.4	73.2	66.5	57.6	49.2	52.2	3.4
Duration 13	65.4	69.8	61.1	59.5	51.6	52.6	4.3
Duration 14	35.3	63.6	61.2	66.7	57.2	58.3	6.2
Duration 15+		31.7	49.9	48.6	49.1	49.1	5.5
Duration 1—Heart Attack	38.7	40.0	38.3	40.5	35.2	38.3	4.6
Duration 2—Heart Attack	32.0	39.5	35.4	37.7	35.9	33.7	4.2
Duration 3—Heart Attack	44.1	43.1	39.3	34.3	32.6	37.2	4.3
Duration 4—Heart Attack	40.5	44.4	45.0	48.9	45.1	41.1	4.4
Duration 5—Heart Attack	40.8	44.5	46.6	45.8	40.1	41.6	4.4
Duration 6—Heart Attack	50.7	51.5	49.3	43.3	40.8	44.9	4.6
Duration 7—Heart Attack	42.2	41.8	38.8	38.4	35.9	37.8	4.3
Duration 8—Heart Attack	36.5	37.2	37.1	41.4	39.4	39.4	4.5
Duration 9—Heart Attack	44.0	45.8	37.1	32.8	34.0	36.0	4.5
Duration 10—Heart Attack	44.2	52.5	53.9	51.7	46.9	45.3	5.4
Duration 11—Heart Attack	40.5	47.3	47.4	37.0	37.7	38.6	6.1
Duration 12—Heart Attack	84.6	79.8	69.0	49.9	30.9	36.0	7.1
Duration 13—Heart Attack	46.8	47.5	53.9	40.3	31.2	30.3	8.1
Duration 14—Heart Attack	0.0	45.8	49.1	47.4	35.9	35.7	11.9
Duration 15+—Heart Attack		0.0	38.5	23.7	36.8	36.7	11.6

<sup>c</sup> Some of the results cannot be presented due to confidentiality rules (shaded cells).



Duration 1—LT Cancer	31.2	31.0	30.4	29.3	24.6	28.6	2.0
Duration 2—LT Cancer	66.1	65.4	64.3	70.1	63.9	64.6	2.9
Duration 3—LT Cancer	71.2	69.5	69.2	72.4	71.8	71.6	3.1
Duration 4—LT Cancer	71.0	68.0	69.3	67.8	61.5	67.1	2.9
Duration 5—LT Cancer	73.7	72.3	67.8	68.6	65.9	69.9	3.0
Duration 6—LT Cancer	75.0	72.1	71.9	71.0	70.2	72.4	3.1
Duration 7—LT Cancer	81.1	77.0	78.0	76.5	74.7	76.1	3.2
Duration 8—LT Cancer	73.8	70.6	73.2	72.3	68.0	71.3	3.2
Duration 9—LT Cancer	65.9	68.7	69.8	70.2	67.0	67.7	3.3
Duration 10—LT Cancer	77.6	74.9	71.3	68.8	65.7	67.7	3.5
Duration 11—LT Cancer	79.5	69.6	75.9	71.5	67.9	68.6	4.3
Duration 12—LT Cancer	103.4	91.2	84.0	72.7	64.9	67.9	5.2
Duration 13—LT Cancer	88.9	93.5	80.0	81.6	70.4	72.0	6.6
Duration 14—LT Cancer	58.7	73.0	67.5	87.6	78.0	79.9	9.5
Duration 15+—LT Cancer		52.7	66.1	69.8	60.5	60.5	7.9
Duration 1—Stroke	19.7	17.6	24.2	23.6	23.9	23.1	5.3
Duration 2—Stroke	28.8	30.3	28.5	30.7	32.0	31.2	6.0
Duration 3—Stroke	32.2	32.0	38.1	40.8	40.8	32.0	6.0
Duration 4—Stroke	48.2	45.5	50.6	55.8	54.4	52.2	7.5
Duration 5—Stroke	35.3	32.4	36.9	43.2	42.0	40.9	6.5
Duration 6—Stroke	32.9	28.6	24.6	25.3	28.9	30.1	5.7
Duration 7—Stroke	28.2	34.8	38.7	40.8	38.6	34.4	6.2
Duration 8—Stroke	22.4	26.7	29.8	27.7	28.4	28.0	5.7
Duration 9—Stroke	42.7	42.6	38.6	38.6	38.3	38.0	6.9
Duration 10—Stroke	58.2	58.8	52.9	57.6	54.6	53.5	8.8
Duration 11—Stroke	60.9	70.3	69.9	58.9	46.2	51.3	10.5
Duration 12—Stroke	54.2	29.6	26.8	39.7	35.3	36.4	10.5
Duration 13—Stroke	0.0	0.0	0.0	8.7	24.1	23.4	10.4
Duration 14—Stroke	0.0	49.8	26.7	14.6	25.6	25.5	14.7
Duration 15+—Stroke		0.0	0.0	16.7	38.7	38.6	17.3

**Table C5b. Comparison of ratios (A/E) by number for durations 1 to 15+ and for durations 1 to 15+ for three illnesses. Male Experience<sup>d</sup>**

Population—Male	A/E by number					S.D.	
	2005–10	2006–11	2007–12	2008–13	2009–14	2005–14	2005–14
Duration 1	26.9	27.8	28.1	26.1	21.0	24.5	2.0
Duration 2	48.3	46.7	41.0	45.4	40.7	44.8	2.6
Duration 3	52.8	49.6	48.0	48.0	47.0	49.8	2.7
Duration 4	55.8	49.7	50.9	49.9	46.2	50.4	2.7
Duration 5	52.8	54.7	51.6	50.8	47.5	50.5	2.6
Duration 6	53.8	50.4	48.7	47.5	46.7	50.7	2.7
Duration 7	55.6	56.4	58.7	57.5	55.5	56.2	2.9
Duration 8	50.6	50.8	52.9	53.0	52.0	52.6	2.8
Duration 9	61.7	57.6	54.1	52.1	49.5	51.7	2.9
Duration 10	63.4	56.4	55.1	56.5	52.9	53.5	3.2
Duration 11	66.3	61.0	61.4	54.7	50.0	52.2	3.9
Duration 12	81.9	74.2	68.4	53.2	43.6	48.8	4.4
Duration 13	60.2	69.8	57.3	59.2	47.3	47.7	5.5
Duration 14	39.0	71.7	65.2	62.9	51.3	52.2	7.7
Duration 15+		17.3	49.4	46.5	48.1	48.1	7.0
Duration 1—Heart Attack	45.5	48.7	46.6	48.4	40.0	44.6	5.7
Duration 2—Heart Attack	39.5	46.8	40.1	44.6	42.4	40.3	5.2
Duration 3—Heart Attack	49.2	47.4	43.0	40.2	38.1	41.3	5.2
Duration 4—Heart Attack	46.1	49.1	49.2	47.7	45.0	43.1	5.2
Duration 5—Heart Attack	42.8	48.1	50.6	48.7	44.9	44.8	5.2
Duration 6—Heart Attack	53.9	55.7	53.1	46.7	47.9	50.9	5.6
Duration 7—Heart Attack	45.2	45.1	42.4	42.9	39.4	42.6	5.2
Duration 8—Heart Attack	41.1	43.2	43.6	49.2	45.7	45.9	5.6
Duration 9—Heart Attack	58.5	59.4	47.3	41.3	41.4	44.6	5.8
Duration 10—Heart Attack	53.3	54.1	56.5	56.1	52.9	51.6	6.7
Duration 11—Heart Attack	44.2	57.7	61.3	46.5	41.8	43.6	7.6
Duration 12—Heart Attack	94.1	87.6	81.7	58.9	38.5	43.7	9.1
Duration 13—Heart Attack	30.8	31.1	53.6	43.6	33.8	32.7	9.9
Duration 14—Heart Attack	0.0	60.9	65.0	63.3	48.9	48.7	16.2
Duration 15+—Heart Attack		0.0	52.0	32.0	44.8	44.8	14.9

<sup>d</sup> Some of the results cannot be presented due to confidentiality rules (shaded cells).

Duration 1—LT Cancer	28.1	30.7	31.8	27.4	20.7	24.6	3.0
Duration 2—LT Cancer	68.0	62.5	54.1	63.7	55.5	63.1	4.7
Duration 3—LT Cancer	66.4	63.4	60.5	65.3	67.0	68.3	4.8
Duration 4—LT Cancer	74.6	64.0	66.7	66.5	58.2	66.5	4.7
Duration 5—LT Cancer	74.1	75.0	66.8	65.3	61.6	68.6	4.6
Duration 6—LT Cancer	66.9	63.0	62.1	64.2	63.0	65.8	4.6
Duration 7—LT Cancer	75.6	73.7	79.6	80.0	80.8	79.6	5.1
Duration 8—LT Cancer	73.9	70.1	71.7	70.3	67.2	70.9	4.8
Duration 9—LT Cancer	70.7	72.8	67.3	68.9	63.5	64.8	4.8
Duration 10—LT Cancer	73.2	66.8	66.3	66.8	63.9	65.3	5.1
Duration 11—LT Cancer	76.8	70.9	74.5	69.5	68.0	68.1	6.3
Duration 12—LT Cancer	99.1	92.8	85.8	71.0	60.0	66.2	7.4
Duration 13—LT Cancer	89.5	102.3	77.6	86.1	67.4	67.8	9.2
Duration 14—LT Cancer	74.7	86.5	78.6	84.1	68.5	70.4	12.4
Duration 15+—LT Cancer		32.8	71.8	70.5	57.8	57.7	10.5
Duration 1—Stroke	19.6	11.9	16.0	11.8	20.0	19.8	6.6
Duration 2—Stroke	18.1	19.2	19.6	23.8	27.1	22.7	6.8
Duration 3—Stroke	36.3	35.0	52.1	53.3	53.8	40.9	8.9
Duration 4—Stroke	43.0	47.2	57.4	64.9	66.3	55.6	10.1
Duration 5—Stroke	36.3	35.1	36.3	42.2	34.7	38.0	8.3
Duration 6—Stroke	29.7	23.1	22.4	20.2	21.8	25.8	6.9
Duration 7—Stroke	27.9	37.5	44.0	53.5	46.9	41.6	8.9
Duration 8—Stroke	26.8	33.9	38.8	36.8	40.8	37.6	8.6
Duration 9—Stroke	47.1	45.8	39.8	34.3	37.7	38.6	9.1
Duration 10—Stroke	53.5	45.0	39.3	55.7	52.0	51.3	11.2
Duration 11—Stroke	96.5	85.8	75.8	72.6	44.0	54.9	14.2
Duration 12—Stroke	42.0	23.5	14.6	8.4	16.5	20.7	10.3
Duration 13—Stroke	0.0	0.0	0.0	14.4	16.4	15.9	11.2
Duration 14—Stroke	0.0	0.0	0.0	0.0	28.3	28.2	19.9
Duration 15+—Stroke		0.0	0.0	27	37.6	37.6	21.7

**Table C5c. Comparison of ratios (A/E) by number for durations 1 to 15+ and for durations 1 to 15+ for three illnesses. Female Experience<sup>e</sup>**

Population—Female	A/E by number						S.D.
	2005–10	2006–11	2007–12	2008–13	2009–14	2005–14	2005–14
Duration 1	27.8	26.5	24.6	25.5	22.6	26.0	1.9
Duration 2	50.2	52.2	54.2	55.9	52.9	51.3	2.7
Duration 3	59.7	58.9	58.7	59.0	57.4	58.1	2.9
Duration 4	57.7	59.2	58.6	58.5	53.1	56.7	2.8
Duration 5	61.5	58.8	57.8	59.0	56.2	58.8	2.9
Duration 6	68.2	65.2	64.3	61.7	60.7	62.2	3.1
Duration 7	69.4	64.8	62.3	58.6	56.2	58.9	3.1
Duration 8	60.3	55.9	57.9	56.6	52.9	56.4	3.1
Duration 9	51.3	51.9	56.0	56.8	55.4	55.2	3.3
Duration 10	68.3	69.6	66.3	60.6	56.3	58.0	3.6
Duration 11	64.2	57.5	64.5	59.6	55.9	56.3	4.4
Duration 12	88.5	71.7	63.9	63.1	56.0	56.4	5.3
Duration 13	73.6	69.8	66.8	60.0	57.0	58.7	6.9
Duration 14	29.8	50.9	54.8	72.6	65.5	66.9	10.3
Duration 15+		54.3	50.6	51.8	50.7	50.7	9.0
Duration 1—Heart Attack	16.7	12.5	12.5	16.2	20.5	18.4	6.5
Duration 2—Heart Attack	7.7	16.2	20.4	16.3	15.8	12.9	5.3
Duration 3—Heart Attack	27.9	29.5	27.3	15.7	15.6	24.2	7.0
Duration 4—Heart Attack	22.7	29.6	31.8	52.6	45.3	34.7	8.2
Duration 5—Heart Attack	34.7	33.5	34.5	37.1	25.1	31.8	7.7
Duration 6—Heart Attack	40.8	38.6	37.7	32.7	19.2	26.6	7.1
Duration 7—Heart Attack	33.1	31.9	28.1	24.7	25.4	23.4	6.8
Duration 8—Heart Attack	22.6	19.4	18.1	18.6	20.8	20.3	6.4
Duration 9—Heart Attack	0.0	5.3	7.4	8.6	12.6	11.0	4.9
Duration 10—Heart Attack	15.3	47.9	46.2	39.0	30.1	27.4	8.3
Duration 11—Heart Attack	28.6	15.9	8.6	11.1	26.9	25.2	9.5
Duration 12—Heart Attack	52.8	55.2	31.8	25.3	10.8	15.3	8.8
Duration 13—Heart Attack	97.3	100.4	54.7	30.9	24.4	23.8	13.7
Duration 14—Heart Attack	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Duration 15+—Heart Attack		0.0	0.0	0.0	14.0	14.0	14.0

<sup>e</sup> Some of the results cannot be presented due to confidentiality rules (shaded cells).

Duration 1—LT Cancer	33.0	31.1	29.6	30.4	26.8	30.9	2.6
Duration 2—LT Cancer	65.0	67.0	70.3	73.9	68.8	65.5	3.7
Duration 3—LT Cancer	74.3	73.3	74.6	76.7	74.7	73.7	4.0
Duration 4—LT Cancer	68.5	70.6	70.9	68.7	63.6	67.5	3.8
Duration 5—LT Cancer	73.4	70.4	68.5	70.8	68.7	70.7	3.9
Duration 6—LT Cancer	80.9	78.8	78.9	75.8	75.2	77.1	4.2
Duration 7—LT Cancer	85.3	79.5	76.8	74.0	70.1	73.6	4.2
Duration 8—LT Cancer	73.7	71.0	74.3	73.8	68.7	71.6	4.3
Duration 9—LT Cancer	61.6	65.1	71.9	71.3	69.8	70.1	4.5
Duration 10—LT Cancer	82.0	82.3	75.7	70.6	67.2	69.9	4.9
Duration 11—LT Cancer	82.4	68.3	77.1	73.2	67.8	69.0	5.9
Duration 12—LT Cancer	108.4	89.4	82.1	74.2	69.2	69.5	7.2
Duration 13—LT Cancer	88.1	83.2	82.6	77.0	73.3	76.0	9.5
Duration 14—LT Cancer	41.1	57.3	54.4	91.4	88.0	90.0	14.4
Duration 15+—LT Cancer		75.4	59.6	69	63.8	63.8	12.1
Duration 1—Stroke	19.9	24.6	34.2	37.8	28.5	27.1	8.6
Duration 2—Stroke	42.9	44.7	39.7	39.4	38.1	42.0	10.5
Duration 3—Stroke	26.8	28.1	19.7	24.6	24.3	20.4	7.2
Duration 4—Stroke	55.4	43.2	41.3	43.5	38.7	47.6	10.9
Duration 5—Stroke	33.9	28.6	37.6	44.6	51.8	44.8	10.6
Duration 6—Stroke	37.3	36.5	27.6	32.3	38.7	36.1	9.7
Duration 7—Stroke	28.8	31.0	31.1	22.7	27.1	24.2	8.1
Duration 8—Stroke	15.9	16.4	16.9	14.9	10.8	14.2	6.4
Duration 9—Stroke	35.9	37.9	36.7	44.6	39.1	37.2	10.7
Duration 10—Stroke	66.0	79.8	73.1	60.5	58.3	56.6	14.2
Duration 11—Stroke	0.0	45.6	61.4	39.5	49.3	46.2	15.4
Duration 12—Stroke	76.3	39.8	45.8	84.8	61.6	58.6	20.7
Duration 13—Stroke	0.0	0.0	0.0	0.0	35.1	34.1	19.7
Duration 14—Stroke	0.0	133.1	72.4	38.6	21.5	21.4	21.4
Duration 15+—Stroke		0.0	0.0	0.0	40.4	40.3	28.5

**Table C5d. Comparison of ratios (A/E) by amount for durations 1 to 15+ and for durations 1 to 15+ for three illnesses. Overall Experience<sup>f</sup>**

Population—Overall	A/E by amount					
	2005–10	2006–11	2007–12	2008–13	2009–14	2005–14
Duration 1	27.4	28.5	26.7	24.0	21.9	25.3
Duration 2	49.2	51.6	48.1	47.0	44.1	46.1
Duration 3	64.3	56.9	52.3	50.5	48.5	56.6
Duration 4	59.2	56.2	53.1	55.9	50.9	55.9
Duration 5	57.8	57.7	55.9	56.7	55.3	55.8
Duration 6	62.2	60.2	57.6	54.2	54.2	57.5
Duration 7	61.8	61.1	60.6	57.7	56.5	58.0
Duration 8	60.3	56.5	56.5	56.4	52.4	55.9
Duration 9	56.5	54.3	53.3	51.3	50.9	52.0
Duration 10	61.9	60.3	57.0	57.3	52.4	54.2
Duration 11	60.5	53.1	60.7	58.6	53.0	53.9
Duration 12	87.6	75.5	70.8	56.5	49.3	53.3
Duration 13	64.0	72.7	61.2	61.2	51.8	52.6
Duration 14	39.1	77.2	62.9	79.4	59.3	61.1
Duration 15+		17.0	34.1	40.0	43.6	43.6
Duration 1—Heart Attack	42.1	38.6	32.2	31.3	29.5	37.0
Duration 2—Heart Attack	31.3	34.3	30.1	30.2	30.5	28.5
Duration 3—Heart Attack	43.1	42.2	35.9	31.3	34.5	38.4
Duration 4—Heart Attack	32.6	32.7	32.7	37.7	36.8	31.9
Duration 5—Heart Attack	36.9	40.1	40.7	45.0	40.1	37.0
Duration 6—Heart Attack	46.7	43.3	37.3	30.4	30.8	37.5
Duration 7—Heart Attack	34.1	36.2	31.9	29.6	28.4	31.3
Duration 8—Heart Attack	34.4	33.4	32.6	39.0	37.4	37.7
Duration 9—Heart Attack	40.2	37.8	31.0	26.3	31.8	33.7
Duration 10—Heart Attack	45.3	45.3	46.9	56.7	48.4	48.9
Duration 11—Heart Attack	35.7	38.4	52.6	38.3	35.9	37.1
Duration 12—Heart Attack	71.6	71.4	55.8	40.2	28.6	33.0
Duration 13—Heart Attack	22.5	37.8	38.2	32.2	42.0	40.4
Duration 14—Heart Attack	0.0	49.8	45.0	78.8	56.3	55.9
Duration 15+—Heart Attack		0.0	13.6	9.5	21.1	21.1
Duration 1—LT Cancer	32.5	34.3	32.8	29.5	26.3	30.1
Duration 2—LT Cancer	67.7	72.0	68.1	67.2	62.8	65.1
Duration 3—LT Cancer	79.2	74.9	67.5	67.5	67.8	74.1
Duration 4—LT Cancer	73.4	71.0	69.7	73.6	67.8	72.2
Duration 5—LT Cancer	78.8	77.0	73.5	72.5	69.3	72.6
Duration 6—LT Cancer	79.1	77.7	76.2	71.2	71.9	76.1

<sup>f</sup> Some of the results cannot be presented due to confidentiality rules (shaded cells).

Duration 7—LT Cancer	82.9	78.2	79.3	79.1	80.0	79.0
Duration 8—LT Cancer	81.5	77.1	78.1	77.0	72.2	76.5
Duration 9—LT Cancer	63.9	66.9	67.6	68.3	65.0	66.0
Duration 10—LT Cancer	75.5	77.0	68.7	65.1	62.2	65.2
Duration 11—LT Cancer	73.2	64.5	73.5	71.9	69.0	68.5
Duration 12—LT Cancer	105.6	94.7	94.1	77.1	68.8	72.6
Duration 13—LT Cancer	99.1	104.0	87.3	90.4	72.0	73.7
Duration 14—LT Cancer	66.3	88.9	73.9	100.4	76.4	79.7
Duration 15+—LT Cancer		28.9	50.8	61.6	54.0	53.9
Duration 1—Stroke	15.6	15.3	21.3	16.2	19.9	18.4
Duration 2—Stroke	25.8	22.0	21.3	23.5	35.4	29.1
Duration 3—Stroke	44.9	35.7	45.9	45.6	45.2	40.2
Duration 4—Stroke	54.3	53.1	61.4	67.1	54.5	57.2
Duration 5—Stroke	29.1	27.7	34.9	38.6	40.6	36.9
Duration 6—Stroke	28.3	26.0	24.7	27.7	28.9	29.3
Duration 7—Stroke	16.0	26.1	38.8	41.1	37.4	31.9
Duration 8—Stroke	20.8	25.9	27.8	25.8	23.9	24.8
Duration 9—Stroke	57.2	50.8	39.9	36.3	31.7	33.9
Duration 10—Stroke	45.0	48.5	40.7	56.7	54.7	54.3
Duration 11—Stroke	96.6	74.2	83.7	71.4	48.0	58.6
Duration 12—Stroke	126.8	73.4	48.2	22.9	25.9	37.0
Duration 13—Stroke	0.0	0.0	0.0	2.5	17.0	16.4
Duration 14—Stroke	0.0	126.8	68.6	40.0	38.1	37.8
Duration 15+—Stroke		0.0	0.0	16.9	57.3	57.2

**Table C5e. Comparison of ratios (A/E) by amount for durations 1 to 15+ and for durations 1 to 15+ for three illnesses. Male Experience<sup>6</sup>**

Population—Male	A/E by amount					
	2005–10	2006–11	2007–12	2008–13	2009–14	2005–14
Duration 1	26.1	27.7	28.2	23.3	20.7	24.0
Duration 2	47.8	51.1	43.1	43.6	40.2	42.8
Duration 3	60.9	48.0	41.6	40.6	41.2	51.6
Duration 4	59.0	51.7	48.5	52.1	45.3	52.3
Duration 5	50.8	51.7	52.1	52.9	52.5	49.7
Duration 6	53.1	49.0	46.3	43.3	42.8	48.2
Duration 7	57.3	60.2	62.0	59.8	58.8	58.9
Duration 8	58.5	54.6	54.9	55.7	48.4	52.1
Duration 9	62.0	58.1	54.4	49.5	49.9	51.8
Duration 10	59.8	55.7	54.8	58.0	51.1	52.8
Duration 11	62.8	53.9	56.3	55.4	46.7	49.3
Duration 12	74.3	68.5	71.8	56.4	47.8	52.2
Duration 13	64.5	75.2	59.0	61.1	50.6	50.9
Duration 14	25.2	76.3	58.1	74.3	55.7	56.5
Duration 15+		7.2	35.1	35.4	41.4	41.3
Duration 1—Heart Attack	43.9	45.4	37.6	36.3	31.5	38.8
Duration 2—Heart Attack	37.6	39.7	33.4	34.0	34.5	33.0
Duration 3—Heart Attack	48.6	46.9	37.9	34.0	35.5	41.1
Duration 4—Heart Attack	35.8	35.7	36.2	38.2	38.6	33.4
Duration 5—Heart Attack	37.5	41.5	42.5	45.1	43.3	37.9
Duration 6—Heart Attack	47.0	43.9	37.0	29.7	32.2	40.0
Duration 7—Heart Attack	36.0	38.9	34.4	31.8	29.4	33.4
Duration 8—Heart Attack	34.1	35.8	36.8	44.3	40.3	40.3
Duration 9—Heart Attack	49.7	45.1	36.3	30.9	35.4	38.2
Duration 10—Heart Attack	50.9	46.3	50.6	61.9	53.7	54.9
Duration 11—Heart Attack	39.6	45.2	64.7	46.2	37.0	39.1
Duration 12—Heart Attack	72.7	75.3	61.8	45.9	35.3	38.8
Duration 13—Heart Attack	13.8	28.6	36.6	33.8	46.5	44.6
Duration 14—Heart Attack	0.0	61.9	55.6	98.6	71.7	71.1
Duration 15+—Heart Attack		0.0	17.1	12.0	22.1	22.0
Duration 1—LT Cancer	30.1	31.4	34.8	26.0	22.3	26.7
Duration 2—LT Cancer	67.7	75.9	61.6	64.6	58.8	63.0
Duration 3—LT Cancer	77.8	67.6	53.8	56.7	59.6	70.1
Duration 4—LT Cancer	77.3	65.6	62.8	70.9	59.3	69.7
Duration 5—LT Cancer	75.3	75.2	76.1	75.1	69.8	69.3
Duration 6—LT Cancer	70.1	67.5	66.6	63.6	62.6	66.7

<sup>6</sup> Some of the results cannot be presented due to confidentiality rules (shaded cells).



Duration 7—LT Cancer	82.1	80.3	87.0	88.9	93.5	88.1
Duration 8—LT Cancer	85.5	78.4	79.3	78.4	68.1	74.1
Duration 9—LT Cancer	69.6	73.0	68.6	68.0	63.6	65.2
Duration 10—LT Cancer	71.4	72.3	66.3	64.3	58.6	61.9
Duration 11—LT Cancer	72.7	65.0	67.7	68.5	63.9	64.1
Duration 12—LT Cancer	82.0	82.6	98.2	85.1	71.8	75.2
Duration 13—LT Cancer	113.1	118.4	90.0	98.0	74.2	75.2
Duration 14—LT Cancer	48.3	103.3	73.2	93.1	69.8	71.5
Duration 15+—LT Cancer		13.7	59.5	58.3	49.2	49.2
Duration 1—Stroke	17.4	12.8	20.3	11.7	20.5	18.9
Duration 2—Stroke	19.1	12.7	16.7	20.3	39.9	28.5
Duration 3—Stroke	45.8	30.8	53.7	53.7	53.6	47.2
Duration 4—Stroke	56.9	60.5	76.7	84.3	67.2	65.7
Duration 5—Stroke	25.6	30.6	32.2	35.7	30.4	29.3
Duration 6—Stroke	27.9	24.1	21.0	18.3	17.6	23.6
Duration 7—Stroke	18.3	26.7	47.0	52.7	44.4	38.4
Duration 8—Stroke	26.8	29.9	33.2	31.4	29.5	30.8
Duration 9—Stroke	74.6	59.8	43.2	35.4	31.2	34.5
Duration 10—Stroke	44.9	42.2	30.7	59.8	55.9	55.3
Duration 11—Stroke	139.6	96.0	73.3	73.3	35.1	54.6
Duration 12—Stroke	139.4	82.7	52.8	2.2	16.3	34.8
Duration 13—Stroke	0.0	0.0	0.0	3.7	10.8	10.4
Duration 14—Stroke	0.0	0.0	0.0	0.0	21.0	20.8
Duration 15+—Stroke		0.0	0.0	24.7	72.2	72.2

**Table C5f. Comparison of ratios (A/E) by amount for durations 1 to 15+ and for durations 1 to 15+ for three illnesses. Female Experience<sup>h</sup>**

Population—Female	A/E by amount					
	2005–10	2006–11	2007–12	2008–13	2009–14	2005–14
Duration 1	29.0	29.5	24.8	24.9	23.3	27.0
Duration 2	51.1	52.2	54.4	51.3	49.0	50.3
Duration 3	68.8	68.8	66.3	63.2	58.0	63.2
Duration 4	59.5	62.3	59.4	60.9	58.3	60.7
Duration 5	67.8	66.2	61.1	62.0	59.2	64.4
Duration 6	75.4	76.4	74.0	69.7	70.5	70.8
Duration 7	68.8	62.6	58.6	54.7	53.2	56.8
Duration 8	63.1	59.5	58.8	57.5	58.3	61.7
Duration 9	47.1	48.0	51.7	54.2	52.4	52.4
Duration 10	65.6	68.1	60.6	56.1	54.4	56.4
Duration 11	56.2	51.7	67.9	63.4	62.3	61.0
Duration 12	115.4	89.0	69.0	56.5	51.8	55.1
Duration 13	63.1	67.4	65.4	61.3	53.7	55.3
Duration 14	66.8	78.9	72.9	89.4	65.7	69.5
Duration 15+		37.5	31.9	49.3	48.1	48.0
Duration 1—Heart Attack	33.7	7.8	7.6	8.8	20.5	29.0
Duration 2—Heart Attack	2.6	9.6	15.4	13.0	12.5	8.4
Duration 3—Heart Attack	18.4	21.2	27.3	19.3	29.8	26.3
Duration 4—Heart Attack	18.3	19.7	16.8	35.6	28.6	24.9
Duration 5—Heart Attack	34.5	33.7	32.7	44.9	26.1	33.0
Duration 6—Heart Attack	45.5	40.5	38.6	33.5	24.7	26.6
Duration 7—Heart Attack	26.0	24.7	21.3	20.0	24.5	22.7
Duration 8—Heart Attack	35.5	23.3	15.6	17.3	25.6	26.7
Duration 9—Heart Attack	0.0	7.8	9.2	8.1	17.6	15.3
Duration 10—Heart Attack	21.1	41.1	32.0	36.1	27.5	24.9
Duration 11—Heart Attack	18.9	10.9	6.2	8.8	32.1	29.7
Duration 12—Heart Attack	66.5	54.7	32.3	19.2	4.7	11.7
Duration 13—Heart Attack	59.7	78.8	44.9	26.0	25.8	24.9
Duration 14—Heart Attack	0.0	0.0	0.0	0.0	0.0	0.0
Duration 15+—Heart Attack		0.0	0.0	0.0	17.7	17.7
Duration 1—LT Cancer	34.4	36.6	31.3	32.2	29.3	32.7
Duration 2—LT Cancer	67.7	68.9	73.3	69.2	65.8	66.8
Duration 3—LT Cancer	80.4	81.1	78.7	76.3	74.4	77.4
Duration 4—LT Cancer	69.9	75.6	75.5	75.9	74.8	74.3
Duration 5—LT Cancer	82.0	78.6	71.2	70.2	68.9	75.6
Duration 6—LT Cancer	87.6	87.3	85.2	78.1	80.4	84.9

<sup>h</sup> Some of the results cannot be presented due to confidentiality rules (shaded cells).

Duration 7—LT Cancer	83.7	76.1	71.9	69.8	67.2	70.2
Duration 8—LT Cancer	77.2	75.8	77.0	75.6	76.2	78.9
Duration 9—LT Cancer	57.4	60.3	66.6	68.7	66.5	66.8
Duration 10—LT Cancer	80.6	82.5	71.3	65.9	66.0	68.9
Duration 11—LT Cancer	73.9	63.7	80.2	75.6	74.2	73.1
Duration 12—LT Cancer	140.8	111.2	88.9	67.8	65.6	69.8
Duration 13—LT Cancer	78.5	82.3	83.5	80.8	69.4	71.8
Duration 14—LT Cancer	91.9	67.6	75.0	110.7	85.1	90.5
Duration 15+—LT Cancer		51.9	37.8	66.6	61.1	61.1
Duration 1—Stroke	12.5	19.4	23.1	23.8	18.8	17.5
Duration 2—Stroke	37.7	38.6	29.3	29.0	27.7	30.3
Duration 3—Stroke	43.3	44.9	31.6	31.2	30.3	27.5
Duration 4—Stroke	49.4	39.4	33.1	35.4	31.7	41.5
Duration 5—Stroke	35.7	22.2	39.9	43.9	59.4	51.2
Duration 6—Stroke	29.0	29.7	31.8	45.7	50.5	40.3
Duration 7—Stroke	11.4	25.0	23.1	18.8	24.1	19.4
Duration 8—Stroke	8.8	18.0	17.4	15.0	13.0	13.3
Duration 9—Stroke	20.7	32.6	33.5	38.2	32.8	32.9
Duration 10—Stroke	45.3	61.6	60.6	50.7	52.3	52.3
Duration 11—Stroke	0.0	28.6	104.2	67.9	71.5	66.2
Duration 12—Stroke	96.4	52.6	38.8	63.0	43.4	40.9
Duration 13—Stroke	0.0	0.0	0.0	0.0	28.9	27.9
Duration 14—Stroke	0.0	408.0	228.2	126.8	72.3	71.8
Duration 15+—Stroke		0.0	0.0	0.0	25.5	25.5

**Table C5g. Comparison of ratios (A/E) by number and amount.  
Overall experience for policy years 2005–2006 through 2013–2014**

Population—Overall	A/E by number			A/E by amount		
	Claims	Exposures	A/E	Claims \$	Exposures \$	A/E
Duration 1	332	420,715	25.2	27,475,314	36,767,882,093	25.3
Duration 2	653	388,552	48.2	52,654,102	34,599,851,447	46.1
Duration 3	749	355,328	54.0	66,508,141	31,802,339,001	56.6
Duration 4	755	324,520	53.5	67,081,021	29,128,770,665	55.9
Duration 5	775	292,691	54.6	67,467,133	26,410,622,968	55.8
Duration 6	770	253,429	56.2	67,238,053	22,979,936,583	57.5
Duration 7	752	217,546	57.5	65,158,760	19,826,561,908	58.0
Duration 8	670	184,745	54.4	59,156,627	16,839,006,416	55.9
Duration 9	596	151,021	53.3	50,127,175	13,795,968,381	52.0
Duration 10	537	118,472	55.5	45,060,959	10,783,224,343	54.2
Duration 11	349	74,903	54.0	28,717,309	6,598,616,356	53.9
Duration 12	233	47,534	52.2	19,807,830	4,196,277,539	53.3
Duration 13	149	27,629	52.6	12,822,946	2,501,172,316	52.6
Duration 14	88	13,270	58.3	8,242,083	1,232,581,652	61.1
Duration 15+	79	12,420	49.1	6,679,668	1,208,175,799	43.6
Duration 1—Heart Attack	69	416,582	38.3	6,099,714	36,706,524,217	37.0
Duration 2—Heart Attack	65	385,578	33.7	5,096,250	34,555,026,770	28.5
Duration 3—Heart Attack	76	353,919	37.2	7,226,849	31,781,256,512	38.4
Duration 4—Heart Attack	88	324,459	41.1	6,252,954	29,128,197,410	31.9
Duration 5—Heart Attack	91	292,679	41.6	7,403,497	26,410,475,468	37.0
Duration 6—Heart Attack	96	253,407	44.9	7,342,821	22,979,643,453	37.5
Duration 7—Heart Attack	78	217,527	37.8	5,931,999	19,826,301,908	31.3
Duration 8—Heart Attack	77	184,745	39.4	6,731,133	16,839,006,416	37.7
Duration 9—Heart Attack	64	151,021	36.0	5,484,900	13,795,968,381	33.7
Duration 10—Heart Attack	70	118,472	45.3	6,890,814	10,783,224,343	48.9
Duration 11—Heart Attack	40	74,903	38.6	3,359,765	6,598,616,356	37.1
Duration 12—Heart Attack	26	47,534	36.0	2,090,038	4,196,277,539	33.0
Duration 13—Heart Attack	14	27,629	30.3	1,694,891	2,501,172,316	40.4
Duration 14—Heart Attack	9	13,270	35.7	1,316,555	1,232,581,652	55.9
Duration 15+—Heart Attack	10	12,420	36.7	570,000	1,208,175,799	21.1
Duration 1—LT Cancer	209	420,505	28.6	17,069,000	36,765,609,187	30.1
Duration 2—LT Cancer	486	388,341	64.6	39,005,578	34,597,719,444	65.1
Duration 3—LT Cancer	549	355,153	71.6	45,888,770	31,800,790,301	74.1
Duration 4—LT Cancer	521	324,459	67.1	45,874,189	29,128,197,410	72.2
Duration 5—LT Cancer	548	292,679	69.9	46,741,386	26,410,475,468	72.6
Duration 6—LT Cancer	549	253,407	72.4	47,620,091	22,979,643,453	76.1
Duration 7—LT Cancer	554	217,527	76.1	47,728,331	19,826,301,908	79.0
Duration 8—LT Cancer	490	184,745	71.3	43,819,183	16,839,006,416	76.5

Duration 9—LT Cancer	424	151,021	67.7	34,668,699	13,795,968,381	66.0
Duration 10—LT Cancer	369	118,472	67.7	29,783,581	10,783,224,343	65.2
Duration 11—LT Cancer	252	74,903	68.6	20,321,162	6,598,616,356	68.5
Duration 12—LT Cancer	174	47,534	67.9	15,205,442	4,196,277,539	72.6
Duration 13—LT Cancer	118	27,629	72.0	10,232,555	2,501,172,316	73.7
Duration 14—LT Cancer	71	13,270	79.9	6,245,528	1,232,581,652	79.7
Duration 15+—LT Cancer	58	12,420	60.5	4,864,668	1,208,175,799	53.9
Duration 1—Stroke	19	416,582	23.1	1,299,000	36,706,524,217	18.4
Duration 2—Stroke	27	385,578	31.2	2,195,189	34,555,026,770	29.1
Duration 3—Stroke	29	353,919	32.0	3,150,000	31,781,256,512	40.2
Duration 4—Stroke	49	324,459	52.2	4,635,000	29,128,197,410	57.2
Duration 5—Stroke	39	292,679	40.9	3,040,700	26,410,475,468	36.9
Duration 6—Stroke	28	253,407	30.1	2,357,491	22,979,643,453	29.3
Duration 7—Stroke	31	217,527	34.4	2,490,000	19,826,301,908	31.9
Duration 8—Stroke	24	184,745	28.0	1,840,000	16,839,006,416	24.8
Duration 9—Stroke	30	151,021	38.0	2,314,765	13,795,968,381	33.9
Duration 10—Stroke	37	118,472	53.5	3,237,064	10,783,224,343	54.3
Duration 11—Stroke	24	74,903	51.3	2,261,952	6,598,616,356	58.6
Duration 12—Stroke	12	47,534	36.4	1,010,761	4,196,277,539	37.0
Duration 13—Stroke	5	27,629	23.4	300,000	2,501,172,316	16.4
Duration 14—Stroke	3	13,270	25.5	395,000	1,232,581,652	37.8
Duration 15+—Stroke	5	12,420	38.6	700,000	1,208,175,799	57.2

**Table C5h. Comparison of ratios (A/E) by number and amount.  
Male experience for policy years 2005–2006 through 2013–2014**

Population—Male	A/E by number			A/E by amount		
	Claims	Exposures	A/E	Claims \$	Exposures \$	A/E
Duration 1	153	199,311	24.5	14,342,214	19,820,648,252	24.0
Duration 2	294	184,869	44.8	27,422,307	18,718,257,071	42.8
Duration 3	341	169,716	49.8	34,398,911	17,228,255,512	51.6
Duration 4	358	155,967	50.4	36,168,122	15,829,243,210	52.3
Duration 5	367	141,194	50.5	34,965,359	14,381,911,211	49.7
Duration 6	361	122,834	50.7	33,294,968	12,566,190,761	48.2
Duration 7	388	105,843	56.2	39,428,544	10,856,079,321	58.9
Duration 8	347	89,916	52.6	33,153,907	9,192,049,478	52.1
Duration 9	313	73,503	51.7	30,346,965	7,529,616,781	51.8
Duration 10	283	57,628	53.5	26,978,260	5,893,628,736	52.8
Duration 11	183	36,069	52.2	15,869,075	3,554,661,088	49.3
Duration 12	120	23,001	48.8	11,826,889	2,261,447,206	52.2
Duration 13	76	13,496	47.7	7,754,609	1,364,761,572	50.9
Duration 14	46	6,629	52.2	4,887,083	681,843,047	56.5
Duration 15+	47	6,376	48.1	4,224,500	689,788,156	41.3
Duration 1—Heart Attack	61	197,575	44.6	5,239,714	19,793,851,786	38.8
Duration 2—Heart Attack	59	183,620	40.3	4,826,250	18,698,738,595	33.0
Duration 3—Heart Attack	64	169,118	41.3	6,322,849	17,219,112,668	41.1
Duration 4—Heart Attack	70	155,933	43.1	5,353,000	15,828,910,152	33.4
Duration 5—Heart Attack	74	141,189	44.8	6,171,970	14,381,861,211	37.9
Duration 6—Heart Attack	82	122,820	50.9	6,363,693	12,566,020,761	40.0
Duration 7—Heart Attack	66	105,830	42.6	5,110,499	10,855,919,321	33.4
Duration 8—Heart Attack	67	89,916	45.9	5,802,133	9,192,049,478	40.3
Duration 9—Heart Attack	59	73,503	44.6	4,989,900	7,529,616,781	38.2
Duration 10—Heart Attack	59	57,628	51.6	6,184,548	5,893,628,736	54.9
Duration 11—Heart Attack	33	36,069	43.6	2,789,765	3,554,661,088	39.1
Duration 12—Heart Attack	23	23,001	43.7	1,930,038	2,261,447,206	38.8
Duration 13—Heart Attack	11	13,496	32.7	1,469,891	1,364,761,572	44.6
Duration 14—Heart Attack	9	6,629	48.7	1,316,555	681,843,047	71.1
Duration 15+—Heart Attack	9	6,376	44.8	470,000	689,788,156	22.0
Duration 1—LT Cancer	66	199,188	24.6	6,559,000	19,819,127,413	26.7
Duration 2—LT Cancer	178	184,754	63.1	16,727,972	18,716,868,141	63.0
Duration 3—LT Cancer	201	169,622	68.3	19,582,640	17,227,330,802	70.1
Duration 4—LT Cancer	204	155,933	66.5	20,418,264	15,828,910,152	69.7
Duration 5—LT Cancer	218	141,189	68.6	20,990,430	14,381,861,211	69.3
Duration 6—LT Cancer	208	122,820	65.8	20,092,425	12,566,020,761	66.7
Duration 7—LT Cancer	248	105,830	79.6	26,168,115	10,855,919,321	88.1
Duration 8—LT Cancer	214	89,916	70.9	21,259,266	9,192,049,478	74.1

Duration 9—LT Cancer	183	73,503	64.8	17,553,800	7,529,616,781	65.2
Duration 10—LT Cancer	164	57,628	65.3	14,807,148	5,893,628,736	61.9
Duration 11—LT Cancer	115	36,069	68.1	9,804,893	3,554,661,088	64.1
Duration 12—LT Cancer	80	23,001	66.2	8,275,351	2,261,447,206	75.2
Duration 13—LT Cancer	54	13,496	67.8	5,689,218	1,364,761,572	75.2
Duration 14—LT Cancer	32	6,629	70.4	3,175,528	681,843,047	71.5
Duration 15+—LT Cancer	30	6,376	57.7	2,659,500	689,788,156	49.2
Duration 1—Stroke	9	197,575	19.8	840,000	19,793,851,786	18.9
Duration 2—Stroke	11	183,620	22.7	1,370,000	18,698,738,595	28.5
Duration 3—Stroke	21	169,118	40.9	2,380,000	17,219,112,668	47.2
Duration 4—Stroke	30	155,933	55.6	3,455,000	15,828,910,152	65.7
Duration 5—Stroke	21	141,189	38.0	1,575,700	14,381,861,211	29.3
Duration 6—Stroke	14	122,820	25.8	1,245,000	12,566,020,761	23.6
Duration 7—Stroke	22	105,830	41.6	1,975,000	10,855,919,321	38.4
Duration 8—Stroke	19	89,916	37.6	1,505,000	9,192,049,478	30.8
Duration 9—Stroke	18	73,503	38.6	1,554,765	7,529,616,781	34.5
Duration 10—Stroke	21	57,628	51.3	2,187,064	5,893,628,736	55.3
Duration 11—Stroke	15	36,069	54.9	1,370,139	3,554,661,088	54.6
Duration 12—Stroke	4	23,001	20.7	620,000	2,261,447,206	34.8
Duration 13—Stroke	2	13,496	15.9	125,000	1,364,761,572	10.4
Duration 14—Stroke	2	6,629	28.2	145,000	681,843,047	20.8
Duration 15+—Stroke	3	6,376	37.6	600,000	689,788,156	72.2

**Table C5i. Comparison of ratios (A/E) by number and amount.  
Female experience for policy years 2005–2006 through 2013–2014**

Population—Female	A/E by number			A/E by amount		
	Claims	Exposures	A/E	Claims \$	Exposures \$	A/E
Duration 1	180	221,403	26.0	13,133,100	16,947,233,841	27.0
Duration 2	359	203,683	51.3	25,231,795	15,881,594,376	50.3
Duration 3	408	185,612	58.1	32,109,230	14,574,083,489	63.2
Duration 4	397	168,553	56.7	30,912,899	13,299,527,454	60.7
Duration 5	408	151,497	58.8	32,501,774	12,028,711,757	64.4
Duration 6	409	130,595	62.2	33,943,085	10,413,745,822	70.8
Duration 7	364	111,703	58.9	25,730,216	8,970,482,587	56.8
Duration 8	324	94,829	56.4	26,002,720	7,646,956,938	61.7
Duration 9	283	77,518	55.2	19,780,210	6,266,351,600	52.4
Duration 10	254	60,844	58.0	18,082,699	4,889,595,607	56.4
Duration 11	166	38,833	56.3	12,848,234	3,043,955,268	61.0
Duration 12	113	24,533	56.4	7,980,941	1,934,830,332	55.1
Duration 13	73	14,133	58.7	5,068,337	1,136,410,744	55.3
Duration 14	42	6,641	66.9	3,355,000	550,738,606	69.5
Duration 15+	32	6,043	50.7	2,455,168	518,387,643	48.0
Duration 1—Heart Attack	8	219,007	18.4	860,000	16,912,672,431	29.0
Duration 2—Heart Attack	6	201,958	12.9	270,000	15,856,288,176	8.4
Duration 3—Heart Attack	12	184,801	24.2	904,000	14,562,143,844	26.3
Duration 4—Heart Attack	18	168,526	34.7	899,954	13,299,287,258	24.9
Duration 5—Heart Attack	17	151,490	31.8	1,231,527	12,028,614,257	33.0
Duration 6—Heart Attack	14	130,587	26.6	979,128	10,413,622,692	26.6
Duration 7—Heart Attack	12	111,697	23.4	821,500	8,970,382,587	22.7
Duration 8—Heart Attack	10	94,829	20.3	929,000	7,646,956,938	26.7
Duration 9—Heart Attack	5	77,518	11.0	495,000	6,266,351,600	15.3
Duration 10—Heart Attack	11	60,844	27.4	706,266	4,889,595,607	24.9
Duration 11—Heart Attack	7	38,833	25.2	570,000	3,043,955,268	29.7
Duration 12—Heart Attack	3	24,533	15.3	160,000	1,934,830,332	11.7
Duration 13—Heart Attack	3	14,133	23.8	225,000	1,136,410,744	24.9
Duration 14—Heart Attack	0	6,641	0.0	0	550,738,606	0.0
Duration 15+—Heart Attack	1	6,043	14.0	100,000	518,387,643	17.7
Duration 1—LT Cancer	143	221,317	30.9	10,510,000	16,946,481,774	32.7
Duration 2—LT Cancer	308	203,587	65.5	22,277,606	15,880,851,303	66.8
Duration 3—LT Cancer	348	185,531	73.7	26,306,130	14,573,459,499	77.4
Duration 4—LT Cancer	317	168,526	67.5	25,455,925	13,299,287,258	74.3
Duration 5—LT Cancer	330	151,490	70.7	25,750,956	12,028,614,257	75.6
Duration 6—LT Cancer	341	130,587	77.1	27,527,666	10,413,622,692	84.9
Duration 7—LT Cancer	306	111,697	73.6	21,560,216	8,970,382,587	70.2
Duration 8—LT Cancer	276	94,829	71.6	22,559,917	7,646,956,938	78.9



Duration 9—LT Cancer	241	77,518	70.1	17,114,899	6,266,351,600	66.8
Duration 10—LT Cancer	205	60,844	69.9	14,976,433	4,889,595,607	68.9
Duration 11—LT Cancer	137	38,833	69.0	10,516,269	3,043,955,268	73.1
Duration 12—LT Cancer	94	24,533	69.5	6,930,091	1,934,830,332	69.8
Duration 13—LT Cancer	64	14,133	76.0	4,543,337	1,136,410,744	71.8
Duration 14—LT Cancer	39	6,641	90.0	3,070,000	550,738,606	90.5
Duration 15+—LT Cancer	28	6,043	63.8	2,205,168	518,387,643	61.1
Duration 1—Stroke	10	219,007	27.1	459,000	16,912,672,431	17.5
Duration 2—Stroke	16	201,958	42.0	825,189	15,856,288,176	30.3
Duration 3—Stroke	8	184,801	20.4	770,000	14,562,143,844	27.5
Duration 4—Stroke	19	168,526	47.6	1,180,000	13,299,287,258	41.5
Duration 5—Stroke	18	151,490	44.8	1,465,000	12,028,614,257	51.2
Duration 6—Stroke	14	130,587	36.1	1,112,491	10,413,622,692	40.3
Duration 7—Stroke	9	111,697	24.2	515,000	8,970,382,587	19.4
Duration 8—Stroke	5	94,829	14.2	335,000	7,646,956,938	13.3
Duration 9—Stroke	12	77,518	37.2	760,000	6,266,351,600	32.9
Duration 10—Stroke	16	60,844	56.6	1,050,000	4,889,595,607	52.3
Duration 11—Stroke	9	38,833	46.2	891,813	3,043,955,268	66.2
Duration 12—Stroke	8	24,533	58.6	390,761	1,934,830,332	40.9
Duration 13—Stroke	3	14,133	34.1	175,000	1,136,410,744	27.9
Duration 14—Stroke	1	6,641	21.4	250,000	550,738,606	71.8
Duration 15+—Stroke	2	6,043	40.3	100,000	518,387,643	25.5

Observations on the results shown in tables C5a to C5i:

1. The general upward trend in A/E ratios by increasing duration likely reflects the diminishing impact of underwriting selection and contract wording.
2. Note that the relatively low Duration 1 A/E ratios for the Life-Threatening (LT) Cancer group are likely due to a combination of effective underwriting and the effect of the 90-day Moratorium Period (now referred to in the “exclusions” section of the Canadian Life and Health Insurance Association CI benchmark definitions) found on Canadian CI contracts. The Moratorium Period is applied on cancer and benign brain tumour coverages in most of the contracts covered in this study. The impact of the Moratorium Period on incidence rates can last beyond the 90-day period, as an insured exhibiting any signs or symptoms or having had medical consultations within the first 90 days following the issue date of the policy will not be able to claim for cancer or benign brain tumour under their CI contract in the future. No explicit adjustment was made to the 2008 CANCI to reflect the Moratorium Period.
3. The selection period on the Life Threatening (LT) Cancer group appears quite short, especially in comparison to conditions found under the Cardio group. This is likely reflective of the higher predictive value of the cardiovascular risk indicators collected during the underwriting process.

**Table C6a. Comparison of ratios (A/E) by number and amount for underwriting, policy year, and issue year. Overall Experience for 2005–2006 through 2013–2014<sup>1</sup>**

Population—Overall	A/E by number			A/E by amount		
	Claims	Exposures	A/E	Claims \$	Exposures \$	A/E
Medical						
Non-medical	2,408	1,291,498	53.4	152,441,018	90,850,211,520	54.6
Paramedical	1,304	422,311	44.0	126,327,265	46,097,008,487	47.4
Policy Year 2005–2006	458	209,179	50.6	39,591,868	18,020,061,618	53.9
Policy Year 2006–2007	615	239,752	57.0	56,112,901	20,792,956,868	63.8
Policy Year 2007–2008	677	266,609	54.1	57,846,885	23,453,513,280	56.2
Policy Year 2008–2009	797	295,749	55.7	65,996,957	26,115,383,486	55.6
Policy Year 2009–2010	847	325,757	52.2	70,124,229	28,870,060,886	51.6
Policy Year 2010–2011	902	356,541	49.3	78,330,668	31,712,083,678	50.7
Policy Year 2011–2012	1,076	366,849	55.3	90,338,994	33,957,459,667	53.0
Policy Year 2012–2013	1,119	399,318	51.8	97,297,801	36,892,945,970	51.4
Policy Year 2013–2014	998	423,022	42.5	88,556,818	38,856,522,013	43.0
Issue Year 1996	33	6,153	52.2	3,350,000	635,706,677	51.0
Issue Year 1997	99	12,679	69.7	9,865,000	1,250,685,886	73.2
Issue Year 1998	137	20,464	65.5	11,224,968	2,013,885,894	56.8
Issue Year 1999	215	38,666	60.6	19,929,372	3,500,344,498	66.1
Issue Year 2000	324	68,433	57.5	26,293,037	6,057,581,256	56.0
Issue Year 2001	676	164,897	56.8	56,522,172	14,408,710,074	58.1
Issue Year 2002	820	227,952	54.7	67,057,167	19,407,854,655	55.7
Issue Year 2003	1,014	302,242	55.2	86,099,409	26,477,106,777	56.8
Issue Year 2004	1,021	340,184	54.9	85,989,237	30,393,117,885	54.4
Issue Year 2005	772	317,300	50.8	72,356,505	28,831,193,933	55.2
Issue Year 2006	599	277,766	48.6	50,765,200	24,959,225,000	48.6
Issue Year 2007	458	228,862	47.6	41,035,536	21,465,676,616	48.0
Issue Year 2008	413	219,321	49.2	34,801,343	19,982,576,779	47.0
Issue Year 2009	319	203,354	42.8	31,236,481	18,377,882,632	47.5
Issue Year 2010	253	171,204	41.8	21,969,980	15,576,842,251	40.9
Issue Year 2011	216	135,409	45.3	15,777,000	12,251,362,183	39.4
Issue Year 2012	96	102,030	29.0	7,574,714	9,177,997,631	26.8
Issue Year 2013	20	45,361	14.4	1,750,000	3,834,126,046	15.7

<sup>1</sup> Some of the results cannot be presented due to confidentiality rules (shaded cells).

**Table C6b. Comparison of ratios (A/E) by number and amount for underwriting, policy year, and issue year. Male Experience for 2005–2006 through 2013–2014<sup>j</sup>**

Population—Male	A/E by number			A/E by amount		
	Claims	Exposures	A/E	Claims \$	Exposures \$	A/E
Medical						
Non-medical	1,009	593,135	49.2	67,242,249	44,826,894,130	49.6
Paramedical	702	214,369	43.4	76,043,932	27,382,321,087	45.9
Policy Year 2005–2006	230	102,686	49.2	23,191,510	9,918,520,212	53.9
Policy Year 2006–2007	313	117,548	56.1	31,903,783	11,422,779,151	61.8
Policy Year 2007–2008	328	130,343	50.5	30,074,928	12,889,736,310	49.8
Policy Year 2008–2009	398	143,785	53.6	36,767,693	14,322,453,148	52.6
Policy Year 2009–2010	407	157,379	48.4	39,438,462	15,773,926,853	49.2
Policy Year 2010–2011	446	171,387	47.0	42,399,931	17,299,436,672	46.5
Policy Year 2011–2012	530	174,479	52.7	51,634,351	18,302,368,894	51.6
Policy Year 2012–2013	545	189,161	48.8	53,763,061	19,832,052,132	48.4
Policy Year 2013–2014	479	199,585	39.5	45,887,994	20,807,108,031	38.1
Issue Year 1996	19	3,151	50.2	1,875,000	361,960,754	43.6
Issue Year 1997	66	6,755	75.7	6,850,000	746,349,543	75.1
Issue Year 1998	80	10,834	61.9	7,355,968	1,189,407,328	54.8
Issue Year 1999	115	19,688	55.7	11,668,946	1,965,203,926	60.7
Issue Year 2000	179	33,864	57.1	16,061,737	3,315,421,682	55.8
Issue Year 2001	324	79,966	51.2	32,308,622	7,915,117,197	54.9
Issue Year 2002	431	110,868	53.6	39,582,736	10,582,894,662	55.0
Issue Year 2003	492	145,732	51.1	48,194,162	14,489,598,495	53.4
Issue Year 2004	483	163,567	50.4	44,906,727	16,355,788,869	48.5
Issue Year 2005	392	155,466	49.7	42,474,701	15,727,502,953	55.4
Issue Year 2006	309	135,798	49.2	25,222,790	13,585,088,330	41.9
Issue Year 2007	213	110,857	44.1	22,113,750	11,850,520,245	44.7
Issue Year 2008	181	103,822	43.7	17,018,221	10,819,883,180	40.3
Issue Year 2009	130	95,049	36.3	16,375,416	9,792,293,707	44.5
Issue Year 2010	112	79,820	38.7	10,298,223	8,397,824,461	34.3
Issue Year 2011	102	62,302	45.8	8,438,500	6,491,878,800	38.3
Issue Year 2012	36	47,535	23.1	3,246,214	4,920,211,283	20.7
Issue Year 2013	9	20,967	14.0	870,000	2,015,416,288	14.6

<sup>j</sup> Some of the results cannot be presented due to confidentiality rules (shaded cells).

**Table C6c. Comparison of ratios (A/E) by number and amount for underwriting, policy year, and issue year. Female Experience for 2005–2006 through 2013–2014<sup>k</sup>**

Population—Female	A/E by number			A/E by amount		
	Claims	Exposures	A/E	Claims \$	Exposures \$	A/E
Medical						
Non-medical	1,399	698,363	56.9	85,198,769	46,023,317,391	59.3
Paramedical	602	207,943	44.7	50,283,333	18,714,687,400	50.0
Policy Year 2005–2006	227	106,493	52.0	16,400,358	8,101,541,407	53.9
Policy Year 2006–2007	302	122,204	58.0	24,209,118	9,370,177,718	66.6
Policy Year 2007–2008	349	136,266	58.0	27,771,957	10,563,776,969	65.3
Policy Year 2008–2009	399	151,964	57.8	29,229,264	11,792,930,338	59.9
Policy Year 2009–2010	440	168,377	56.3	30,685,767	13,096,134,033	55.1
Policy Year 2010–2011	456	185,154	51.8	35,930,737	14,412,647,006	56.9
Policy Year 2011–2012	546	192,370	58.1	38,704,643	15,655,090,774	54.9
Policy Year 2012–2013	574	210,157	54.9	43,534,740	17,060,893,839	55.6
Policy Year 2013–2014	519	223,437	45.6	42,668,824	18,049,413,982	50.0
Issue Year 1996	14	3,002	55.2	1,475,000	273,745,923	65.2
Issue Year 1997	33	5,925	60.1	3,015,000	504,336,343	69.2
Issue Year 1998	57	9,630	71.2	3,869,000	824,478,565	61.2
Issue Year 1999	100	18,977	67.3	8,260,426	1,535,140,572	75.5
Issue Year 2000	145	34,569	58.0	10,231,300	2,742,159,574	56.1
Issue Year 2001	352	84,930	63.2	24,213,550	6,493,592,877	62.9
Issue Year 2002	389	117,084	55.8	27,474,431	8,824,959,993	56.7
Issue Year 2003	521	156,510	59.7	37,905,247	11,987,508,283	61.7
Issue Year 2004	538	176,617	59.7	41,082,510	14,037,329,017	62.8
Issue Year 2005	380	161,834	52.0	29,881,804	13,103,690,980	55.0
Issue Year 2006	290	141,968	47.9	25,542,410	11,374,136,670	57.6
Issue Year 2007	245	118,005	51.2	18,921,786	9,615,156,371	52.5
Issue Year 2008	232	115,498	54.5	17,783,122	9,162,693,599	55.8
Issue Year 2009	189	108,306	48.9	14,861,065	8,585,588,924	51.4
Issue Year 2010	141	91,384	44.7	11,671,757	7,179,017,790	49.4
Issue Year 2011	113	73,107	44.8	7,338,500	5,759,483,382	40.8
Issue Year 2012	60	54,495	34.1	4,328,500	4,257,786,348	34.4
Issue Year 2013	11	24,395	14.7	880,000	1,818,709,758	17.0

<sup>k</sup> Some of the results cannot be presented due to confidentiality rules (shaded cells).

Observations on the results shown in tables C6a to C6c:

1. There is a noticeable decrease in A/E ratios as underwriting requirements increase from Non-medical to Paramedical. However, the data by level of medical underwriting may not be fully reliable, as participating companies may have different criteria for each category. The claim experience for the Medical category could not be assessed separately due to the confidentiality rules set out at the beginning of this report. In general terms, non-medical underwriting refers to the assessment of an insurance application based primarily on a medical questionnaire completed by the applicant. An assessment based on a paramedical would further include information on vital signs and fluids collected by a nurse, in most cases. Finally, an assessment based on a medical examination would most likely also include a doctor's physical examination and an EKG.
2. There is a general decrease in A/E by issue year, likely due to a higher concentration of earlier policy durations in more recent policy issues, reflecting more significantly the selection effect present on new policies, especially the 90-day moratorium period.

**Table C7a. Comparison of ratios (A/E) by number for Return of Premium. Overall Experience**

<b>Population—Overall</b>	<b>A/E by number</b>						<b>S.D.</b>
<b>Return of Premium</b>	<b>2005–10</b>	<b>2006–11</b>	<b>2007–12</b>	<b>2008–13</b>	<b>2009–14</b>	<b>2005–14</b>	<b>2005–14</b>
• On Surrender	51.2	50.2	51.4	50.8	47.9	49.0	1.1
• On Expiry75/100	56.0	56.3	57.1	57.8	59.0	58.2	2.3
• Only on death	54.4	54.0	54.6	54.3	51.6	52.9	0.9
No Return of Premium	55.5	52.8	51.1	50.6	46.5	48.2	1.3
Total Experience	54.0	53.2	53.2	52.7	49.9	51.4	0.6

**Table C7b. Comparison of ratios (A/E) by number for Return of Premium. Male Experience**

<b>Population—Male</b>	<b>A/E by number</b>						<b>S.D.</b>
<b>Return of Premium</b>	<b>2005–10</b>	<b>2006–11</b>	<b>2007–12</b>	<b>2008–13</b>	<b>2009–14</b>	<b>2005–14</b>	<b>2005–14</b>
• On Surrender	45.9	43.9	45.5	46.0	43.0	44.0	1.5
• On Expiry75/100	44.1	47.4	50.5	54.3	56.6	51.9	2.9
• Only on death	54.5	54.3	55.1	53.3	49.7	52.1	1.3
No Return of Premium	49.8	49.6	47.0	47.1	43.9	45.0	1.8
Total Experience	51.4	50.6	50.3	50.0	47.0	48.7	0.8

**Table C7c. Comparison of ratios (A/E) by number for Return of Premium. Female Experience**

<b>Population—Female</b>	<b>A/E by number</b>						<b>S.D.</b>
<b>Return of Premium</b>	<b>2005–10</b>	<b>2006–11</b>	<b>2007–12</b>	<b>2008–13</b>	<b>2009–14</b>	<b>2005–14</b>	<b>2005–14</b>
• On Surrender	56.4	56.3	57.2	55.5	52.8	54.2	1.7
• On Expiry75/100	70.3	67.1	65.0	61.8	61.8	65.4	3.5
• Only on death	54.3	53.6	54.1	55.4	53.7	53.8	1.4
No Return of Premium	61.5	56.1	55.2	54.2	49.0	51.4	1.9
Total Experience	56.7	56.0	56.3	55.7	53.0	54.2	0.9

**Table C7d. Comparison of ratios (A/E) by amount for Return of Premium. Overall Experience**

<b>Population—Overall</b>	<b>A/E by amount</b>					
<b>Return of Premium</b>	<b>2005–10</b>	<b>2006–11</b>	<b>2007–12</b>	<b>2008–13</b>	<b>2009–14</b>	<b>2005–14</b>
• On Surrender	49.1	49.9	49.3	48.2	45.7	46.9
• On Expiry75/100	55.9	54.2	55.8	55.6	55.5	55.9
• Only on death	58.0	57.4	56.8	55.5	53.2	55.1
No Return of Premium	57.1	51.7	50.6	52.2	47.9	50.2
Total Experience	55.8	54.7	53.1	52.3	49.6	52.0

**Table C7e. Comparison of ratios (A/E) by amount for Return of Premium. Male Experience**

<b>Population—Male</b>	<b>A/E by amount</b>					
<b>Return of Premium</b>	<b>2005–10</b>	<b>2006–11</b>	<b>2007–12</b>	<b>2008–13</b>	<b>2009–14</b>	<b>2005–14</b>
• On Surrender	45.3	44.5	44.4	44.1	40.8	42.1
• On Expiry75/100	44.7	45.2	49.5	51.2	51.3	48.9
• Only on death	56.8	55.8	56.0	54.4	51.1	53.2
No Return of Premium	52.7	47.8	46.6	49.2	46.0	47.6
Total Experience	52.9	51.1	49.8	49.5	46.3	48.8

**Table C7f. Comparison of ratios (A/E) by amount for Return of Premium. Female Experience**

<b>Population—Female</b>	<b>A/E by amount</b>					
<b>Return of Premium</b>	<b>2005–10</b>	<b>2006–11</b>	<b>2007–12</b>	<b>2008–13</b>	<b>2009–14</b>	<b>2005–14</b>
• On Surrender	54.2	57.2	56.1	53.9	52.6	53.6
• On Expiry75/100	74.3	69.3	65.9	62.5	61.6	66.4
• Only on death	59.8	59.7	58.0	57.1	56.2	57.8
No Return of Premium	63.2	57.3	56.2	56.3	50.5	53.7
Total Experience	60.0	60.0	57.8	56.3	54.3	56.6

**Table C7g. Comparison of ratios (A/E) by number and amount for Return of Premium. Overall Experience for 2005–2006 through 2013–2014**

Population—Overall	A/E by number			A/E by amount		
	Claims	Exposures	A/E	Claims \$	Exposures \$	A/E
Return of Premium						
• On Surrender	1,881	851,359	49.0	178,464,215	86,425,532,540	46.9
• On Expiry75/100	657	227,595	58.2	60,447,589	22,191,484,771	55.9
• Only on death	3,133	938,832	52.9	261,869,054	82,979,049,044	55.1
No Return of Premium	1,381	666,918	48.2	102,635,743	49,511,590,180	50.2
Total Experience*	7,489	2,882,775	51.4	644,197,121	258,670,987,467	52.0

**Table C7h. Comparison of ratios (A/E) by number and amount for Return of Premium. Male Experience for 2005–2006 through 2013–2014**

Population—Male	A/E by number			A/E by amount		
	Claims	Exposures	A/E	Claims \$	Exposures \$	A/E
Return of Premium						
• On Surrender	848	405,521	44.0	93,570,069	47,261,580,736	42.1
• On Expiry75/100	314	112,178	51.9	31,794,089	12,120,166,461	48.9
• Only on death	1,644	455,020	52.1	149,140,829	44,482,638,806	53.2
No Return of Premium	647	317,172	45.0	56,679,832	26,857,800,746	47.6
Total Experience*	3,677	1,386,353	48.7	355,061,713	140,568,381,402	48.8

**Table C7i. Comparison of ratios (A/E) by number and amount for Return of Premium. Female Experience for 2005–2006 through 2013–2014**

Population—Female	A/E by number			A/E by amount		
	Claims	Exposures	A/E	Claims \$	Exposures \$	A/E
Return of Premium						
• On Surrender	1,033	445,838	54.2	84,894,146	39,163,951,806	53.6
• On Expiry75/100	343	115,417	65.4	28,653,500	10,071,318,310	66.4
• Only on death	1,489	483,812	53.8	112,728,225	38,496,410,238	57.8
No Return of Premium	734	349,746	51.4	45,955,911	22,653,789,434	53.7
Total Experience*	3,812	1,496,422	54.2	289,135,408	118,102,606,065	56.6

\* See observation #3.

Observations on the results shown in tables C7a to C7i:

1. An applicant can purchase one or more Return of Premium (ROP) options. In order to provide credible results in mutually exclusive categories, the ROP experience was split according to what is likely to be the dominant factor influencing policyholder behaviour. For example, an insured having purchased coverage for both “ROP on Surrender” and “ROP on Death” is more likely to behave like someone having purchased only the “ROP on Surrender” coverage (i.e., the dominant factor influencing policyholder behaviour).

The following summary provides a breakdown of the various combinations used in separating the experience:

<b>Return of Premium on Surrender =</b>	ROP on Surrender + ROP on Expiry75/100 + ROP on Death; ROP on Surrender + ROP on Expiry75/100; ROP on Surrender + ROP on Death; and ROP on Surrender only.
<b>Return of Premium on Expiry75/100 =</b>	ROP on Expiry75/100 + ROP on Death; and ROP on Expiry75/100 only.
<b>Return of Premium only on Death =</b>	ROP on Death only.
<b>No Return of Premium =</b>	No ROP option selected.

2. These results do not offer a full picture of the market practices. For example, instead of a Return of Premium on Expiry100, some companies pay the face amount of CI at attained age 100; while not a true return of premium, a benefit is still paid. As this information was not available in all cases, such policies were not included in the "Return of Premium on Expiry75/100" category.
3. In tables C7g, C7h, and C7i, the sums of claims and exposures are less than the numbers of claims and exposures for "Total Experience". There are two reasons for this. As some of the data used in this study were obtained from the data submission of the previous study, some of the records did not provide the appropriate breakdown of ROP options listed above while others used the "Unknown" code. The sum of claims in table C7g, however, still accounts for 94% of the total number of claims.
4. It is difficult to properly assess whether the addition of an ROP on Surrender rider generally attracts healthier lives as one could conclude when reviewing the above tables. That the experience on policies without any ROP generally shows the second lowest A/E category would then seem counterintuitive to that hypothesis. Issues such as premium affordability and business versus personal insurance purchases likely affect the sales process and the choice of ROP option, if any.

This report was approved by the CIA Research Committee and the Individual Living Benefits Experience Subcommittee of the CIA Research Committee.

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