
Preliminary Report on

Hong Kong Assured Lives
Mortality and Critical Illness

Experience Study
2000-2003

Actuarial Society of Hong Kong

Experience Committee

Actuarial Society of Hong Kong - Experience Committee

Hong Kong Assured Lives Mortality and Critical Illness Experience Study 2000-2003

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1. Introduction

This report has been produced by the experience committee of the Actuarial Society of Hong Kong. It is based on data collected by the experience committee from a broad range of life insurance companies operating in Hong Kong covering the period 2000 to 2003.

The report provides an overview of Hong Kong assured lives experience for the period 2000 to 2003, giving an update to the mortality experience collected in 2001 that formed the basis of HKA01, and also, for the first time, information on the experience of critical illness policies in Hong Kong. A large proportion of the companies writing life insurance business in Hong Kong have supported this study, and therefore the results should be representative of the industry average.

The report is dominated by tables of data from this experience study with only brief interpretation and analysis of the results provided. More in-depth analysis of specific areas of interest is expected to follow the publication and discussion of these preliminary results. This more detailed analysis will form the basis of a final report on this study period.

The experience committee did not set out with the intention of creating a new assured lives mortality table for Hong Kong from this study. The comparison with HKA01 in section 3.1 suggests the shape of HKA01 remains, as expected, representative of the bulk of Hong Kong assured lives experience. However, this study does provide additional data at younger and older ages and raises questions as to the appropriateness of HKA01 at these extremes. This is one area that requires further investigation, ideally through an analysis of the combined data from this and the previous study.

Experience by smoking status is available for the first time, and it is not a surprise to see the relative mortality exhibited in this study being at a level consistent with other similar international studies, with smokers experiencing mortality up to twice that of non-smokers. A graduation of this experience is possible, however, the volume of data available at this stage suggests a relatively large degree of uncertainty around the true position would remain.

No assured lives table exists in Hong Kong for the incidence of critical illness claims. This study covers over 3,500 critical illness claims, a volume of data that should support at least a preliminary graduation for the age range 20 to 64. This is another area for further investigation.

This report will be available in electronic format from the website of the Actuarial Society of Hong Kong, www.actuaries.org.hk. Should there be any questions or queries on the study or this report, please contact the Chairperson of the Experience Committee at the Actuarial Society of Hong Kong by email: actsoff@netvigator.com.

Finally, this report could not have been completed with the time and effort of a number of individuals, primarily those on the experience committee of the Actuarial Society of Hong Kong and those at the participating companies involved in collating the data. Their commitment to delivering the data for this study and its subsequent collation and analysis for presentation in this report is very much appreciated.

David Gott – Chairperson of Experience Committee
July 2005

2. Data

The study period chosen was the five years from 1/1/1999 to 31/12/2003. This gave an overlapping period of two years with the previous study that formed the basis of HKA01.

A number of additional data items were requested for this study, significantly increasing the volume of statistics, but at the same time offering a better understanding of the factors influencing claims experience.

The majority of data was provided in the second half of 2004.

2.1 Overview of data gathered

2.1.1 Market coverage of this study

Data requests were sent to the twenty companies who responded to a survey in early 2004 offering their support for an industry mortality and critical illness study. Nineteen, the participating companies, responded with comprehensive data for this study. According to the statistics reported to the Office of the Commissioner of Insurance, the participating companies for this study represent 78% of the individual life policies in-force in Hong Kong at the end of 2003.

2.1.2 Data requested

Data was requested on both a per lives / per policies and per amounts basis for the following parameters:

- policy type – life only, life plus accelerated critical illness, critical illness only
- age – 0 to 100
- gender – male, female
- smoking status – non-smoker, smoker, aggregate / unknown
- duration - 0, 1 and 2+
- non-medical / medical

The data was restricted to individually underwritten policies (i.e. excluding group policies and individual policies where the life cover is nominal) issued at standard rates.

The data used within this report is standardised, as far as possible, to:

- an age definition of age last at previous policy anniversary
- a duration definition of curtate duration since inception
- per lives and per amounts

2.1.2 Data provided

The majority of participating companies provided data for the full period in the detailed format requested, including the requested allocation by policy type where life policies with accelerated critical illness benefits are separately identified. This has allowed a large proportion of the data provided to be used as the basis for this report.

However, to ensure this report provides a true reflection of the experience of the whole market in Hong Kong, all experience for the year 1999 has been excluded from this study as one participating company with a material share of the market was unable to provide any data for this one year.

In addition, there is no analysis for policies that provide for critical illness benefits only, as the number of policies are relatively small. However, these policies are included within the analysis for critical illness benefits as a whole.

2.1.3 Data validation

A number of checks were carried out on the original data provided in order to obtain a degree of confidence in the accuracy of the data supplied. These validation checks included:

- a review of minimum and maximum ages by product type and duration
- a check that data cells with a policy recorded were matched with a sum assured
- a review of average sum assured and average claim amount by year and product type
- a review of crude claim rates and actual/expected ratios by year and product type
- a review of implied rate of lapse and surrender for duration 0 and duration 1 + by year and product type

The consolidated data was subjected to similar validation checks plus an assessment of the reasonableness of actual/expected ratios for combinations of each of the parameters.

2.1.4 Comparison of data with HKA01

The table below gives a comparison of the volume of mortality data underlying this study with that used to derive HKA01.

All Life		Volume of Data			
Gender	Duration	In-Force Lives		Deaths	
		2000-2003	HKA01	2000-2003	HKA01
Male	0	1,019,443	1,692,291	459	850
	1	853,122	1,385,409	619	898
	2+	4,774,583	6,718,224	6,861	7,319
Female	0	1,125,587	1,487,363	211	361
	1	955,643	1,200,410	359	383
	2+	4,311,502	4,851,170	3,436	3,006
Total		13,039,880	17,334,867	11,945	12,817

The 2000-2003 study numbers represent the volume of data for all life policies for the years 2000 through to 2003 inclusive. This compares to the HKA01 study which covered similar data for the years 1991 to 2001.

2.2 Results table format

The data presented within the results tables will be from one of the following common groupings:

- Life Only Refers to policies with only life benefits
- Life + CI Refers to policies with only life plus accelerated critical illness benefits
- CI Only Refers to policies with only critical illness benefits
- All Life Refers to policies with only life benefits plus the life component of policies with only life plus accelerated critical illness benefits
- All CI Refers to policies with only critical illness benefits plus the critical illness component of policies with only life plus accelerated critical illness benefits

2.3 Analysis of in-force

The following table indicates how the data provided is split by age and gender for lives in-force.

Age Last	All Life			All CI		
	Male	Female	% Male	Male	Female	% Male
0-4	256,338	227,319	53%	48,606	44,639	52%
5-9	358,512	308,588	54%	48,279	42,483	53%
10-14	318,351	268,810	54%	36,997	32,733	53%
15-19	298,960	246,998	55%	49,750	47,529	51%
20-24	472,282	479,219	50%	156,374	201,624	44%
25-29	678,414	794,556	46%	284,101	394,075	42%
30-34	799,981	922,659	46%	318,796	422,598	43%
35-39	1,009,345	1,002,127	50%	339,518	400,649	46%
40-44	983,325	843,843	54%	266,366	292,536	48%
45-49	691,899	587,791	54%	147,178	177,437	45%
50-54	432,231	370,663	54%	71,838	95,210	43%
55-59	177,387	158,013	53%	20,840	28,862	42%
60-64	88,832	81,085	52%	4,179	5,600	43%
65-69	48,768	55,224	47%	453	559	45%
70-74	23,570	32,212	42%	20	34	37%
75-79	7,327	11,275	39%	-	3	0%
80-84	1,340	2,127	39%	-	-	0%
85+	286	224	56%	-	-	0%
All Ages	6,647,148	6,392,732	51%	1,793,295	2,186,571	45%

The trend over time shows an increasing proportion of female lives and on new business there are now more female policies than male issued.

2.4 Analysis of claims

The following table indicates how the data provided is split by age and gender for claims numbers.

Age Last	All Life			All CI		
	Male	Female	% Male	Male	Female	% Male
0-4	26	24	52%	11	3	79%
5-9	25	14	64%	5	4	53%
10-14	41	23	64%	5	3	63%
15-19	56	30	65%	9	8	54%
20-24	155	65	70%	40	47	46%
25-29	284	140	67%	104	196	35%
30-34	366	216	63%	197	338	37%
35-39	587	363	62%	294	563	34%
40-44	1,055	514	67%	400	625	39%
45-49	1,143	494	70%	345	562	38%
50-54	1,168	491	70%	276	315	47%
55-59	806	292	73%	133	104	56%
60-64	675	318	68%	37	28	57%
65-69	660	360	65%	9	5	65%
70-74	543	370	59%	-	1	0%
75-79	249	209	54%	-	-	0%
80-84	79	68	54%	-	-	0%
85+	24	16	60%	-	-	0%
All Ages	7,940	4,006	66%	1,865	2,802	40%

Comparing this with the previous table we see a greater proportion of life claims being from male lives and a greater proportion of critical illness claims being from female lives.

2.5 Analysis of sum assured

The following table indicates the average sum assured per policy in Hong Kong dollars split by age and gender.

Age Last	All Life		All CI	
	Male	Female	Male	Female
0-4	326,194	327,707	200,890	204,660
5-9	261,166	263,481	198,493	205,587
10-14	222,767	225,441	199,142	202,132
15-19	241,712	244,005	222,268	223,727
20-24	334,659	337,714	277,520	270,873
25-29	446,112	410,377	329,883	305,976
30-34	476,507	399,761	353,538	308,282
35-39	458,527	372,851	346,413	292,661
40-44	434,726	338,303	312,419	254,957
45-49	392,574	297,322	267,682	214,459
50-54	337,084	251,772	226,660	179,559
55-59	276,290	198,100	196,507	159,225
60-64	216,714	166,292	192,177	164,209
65-69	173,315	143,563	194,588	175,984
70-74	153,382	125,271	309,604	151,143
75-79	149,575	114,624	-	119,000
80-84	106,424	165,452	-	-
85+	52,664	74,792	-	-
All Ages	377,516	324,051	306,196	271,291

The average does vary materially across age groups, and this will influence any summary comparisons of experience on a lives and amounts basis.

3. Mortality Experience

The vast majority of participating companies were able to provide information on both exposures and claims on a lives and amounts basis for policies providing only life benefits separate from the life component of those providing life plus accelerated critical illness benefits.

The results in this section are based on all data provided by the participating companies for the years 2000 to 2003. The majority of the result tables show experience for policies providing only life benefits, the significance of this being the removal of the majority of the influence of accelerated critical illness riders on mortality experience.

3.1 Actual v expected (based on HKA01 mortality rates)

The following table shows duration 2+ experience for policies with only life benefits and compares with the expected claim ratios on a lives and amounts basis under HKA01. This represents the best estimate of ultimate mortality experience for Hong Kong assured lives.

Life Only Age Last	Experience for Male Lives, Duration 2+					Experience for Female Lives, Duration 2+				
	Lives Exposed	Actual Claims	Expected Claims	A/E Lives	A/E Amounts	Lives Exposed	Actual Claims	Expected Claims	A/E Lives	A/E Amounts
0-4	100,296	7	17	39%	33%	87,948	11	10	111%	73%
5-9	241,548	17	25	66%	59%	206,509	11	18	62%	50%
10-14	224,241	33	30	109%	129%	187,784	20	23	87%	119%
15-19	184,023	34	62	55%	52%	148,082	24	25	95%	93%
20-24	190,636	75	100	75%	80%	166,089	35	34	101%	88%
25-29	275,172	144	129	112%	103%	296,265	74	75	98%	99%
30-34	383,810	218	216	101%	95%	405,842	131	143	92%	76%
35-39	564,506	393	484	81%	69%	492,265	273	263	104%	102%
40-44	618,115	779	838	93%	76%	435,586	376	361	104%	99%
45-49	472,128	907	998	91%	87%	309,852	359	396	91%	87%
50-54	312,946	939	1,056	89%	72%	204,527	367	396	93%	85%
55-59	134,849	674	754	89%	77%	99,529	245	287	85%	112%
60-64	72,575	590	694	85%	80%	60,903	264	280	94%	86%
65-69	41,241	598	640	93%	84%	44,857	316	381	83%	68%
70-74	20,805	500	555	90%	72%	28,064	346	453	76%	63%
75-79	6,621	233	304	77%	48%	9,929	193	285	68%	63%
80-84	1,256	77	103	74%	52%	1,971	66	102	64%	62%
85+	284	24	51	47%	21%	224	16	22	72%	61%
All Ages	3,845,052	6,242	7,056	88%	78%	3,186,227	3,127	3,554	88%	87%

The A/E ratios support the shape of HKA01 for the core age range, but they do raise questions about its appropriateness at younger and older ages. They also suggest in their overall level that there has been a significant mortality improvement over recent years.

Comparing A/E ratios on a lives and amounts basis by age group, there is clear evidence that experience on an amounts basis is materially lower.

3.2 Selection effect

The following tables show duration 0 and duration 1 actual claims for policies with only life benefits and compares with expected claims under HKA01. The resulting A/E ratios are then compared with those for duration 2+ to give an indication of the impact of underwriting selection.

Life Only Age Last	Experience for Male Lives, Duration 0					Experience for Female Lives, Duration 0				
	Lives Exposed	Actual Claims	Expected Claims	A/E Lives	Dur 0/2+ Lives	Lives Exposed	Actual Claims	Expected Claims	A/E Lives	Dur 0/2+ Lives
0-4	71,130	11	35	33%	83%	62,818	9	30	29%	26%
5-9	47,126	4	5	73%	110%	40,934	2	4	53%	86%
10-14	37,244	3	5	53%	49%	31,809	-	4	0%	0%
15-19	46,574	6	17	33%	59%	37,421	4	7	57%	60%
20-24	89,461	25	47	54%	72%	85,202	9	17	49%	49%
25-29	92,971	19	43	45%	40%	93,534	9	24	40%	41%
30-34	83,731	31	47	67%	67%	92,323	13	32	41%	45%
35-39	90,007	29	76	38%	47%	100,454	11	54	21%	20%
40-44	78,741	53	106	50%	53%	93,172	16	77	21%	20%
45-49	52,723	39	111	35%	38%	72,132	25	92	27%	30%
50-54	31,513	53	106	50%	56%	47,335	27	91	29%	32%
55-59	12,764	35	71	49%	54%	17,336	10	49	21%	25%
60-64	6,150	26	58	45%	53%	7,480	14	34	42%	45%
65-69	3,328	17	52	32%	34%	4,636	9	39	23%	27%
70-74	1,197	9	31	28%	31%	1,777	7	28	23%	31%
75-79	300	4	14	25%	33%	567	5	17	32%	47%
80-84	27	1	2	52%	70%	49	-	2	0%	0%
85+	2	-	0	0%	0%	1	-	0	0%	0%
All Ages	744,989	364	827	44%	50%	788,979	170	602	28%	32%

Duration 0 experience is clearly significantly better than duration 2+, overall around 58% lower for males and females combined.

Life Only Age Last	Experience for Male Lives, Duration 1					Experience for Female Lives, Duration 1				
	Lives Exposed	Actual Claims	Expected Claims	A/E Lives	Dur 1/2+ Lives	Lives Exposed	Actual Claims	Expected Claims	A/E Lives	Dur 1/2+ Lives
0-4	55,878	4	13	31%	79%	49,187	3	11	25%	22%
5-9	41,700	3	4	64%	97%	35,757	1	3	29%	47%
10-14	34,020	3	5	64%	59%	28,620	2	3	58%	66%
15-19	32,402	7	11	64%	115%	26,033	1	4	22%	23%
20-24	63,559	24	33	72%	96%	61,233	4	13	35%	35%
25-29	73,898	34	35	98%	87%	75,804	12	19	64%	65%
30-34	68,260	29	38	77%	76%	74,192	21	26	82%	90%
35-39	75,237	42	64	65%	80%	81,273	19	43	44%	43%
40-44	68,320	63	92	69%	74%	76,244	40	63	63%	60%
45-49	46,133	60	97	62%	68%	58,785	43	75	57%	63%
50-54	28,097	76	95	80%	90%	39,569	33	76	44%	47%
55-59	12,350	45	69	66%	74%	16,944	23	48	48%	56%
60-64	6,698	38	64	60%	71%	8,043	29	37	79%	84%
65-69	3,779	38	58	65%	69%	5,233	31	44	71%	86%
70-74	1,547	33	40	82%	91%	2,337	16	37	43%	56%
75-79	406	12	19	66%	87%	776	10	22	47%	70%
80-84	57	1	4	23%	31%	106	1	5	20%	31%
85+	1	-	0	0%	0%	-	-	-	0%	0%
All Ages	612,342	512	741	69%	78%	640,134	290	531	55%	62%

Duration 1 experience is also significantly better than duration 2+, overall around 28% lower for males and females combined.

By comparison, the select effect in the 2001 study showed duration 0 at 42% lower than duration 2+ and duration 1 at 24% lower.

3.3 Smoking differentials

For the first time in Hong Kong, industry assured lives data is available on a smoker differentiated basis. There remains a considerable number of policies sold on an aggregate basis, however, around 50% of the lives with only life benefits within this study have a smoker status identified. The following table shows the experience for non-smokers and smokers, with actual claims compared to expected claims under HKA01. In addition, the A/E ratio for each of non-smokers and smokers is compared with the average A/E ratio for non-smokers and smokers combined in order to arrive at a relative mortality level.

Life Only Age Last	Experience for Non-Smokers, All Durations					Experience for Smokers, All Durations				
	Lives Exposed	Actual Claims	Expected Claims	A/E Lives	NSm/Avg Lives	Lives Exposed	Actual Claims	Expected Claims	A/E Lives	SM/Avg Lives
15-19	119,057	15	32	46%	93%	31,852	6	9	63%	125%
20-24	265,227	45	93	49%	91%	62,882	19	26	72%	134%
25-29	409,275	89	139	64%	91%	86,460	33	35	96%	137%
30-34	494,555	159	215	74%	92%	91,927	50	46	108%	135%
35-39	613,295	242	412	59%	92%	97,276	71	77	92%	144%
40-44	577,195	414	618	67%	95%	84,076	99	107	93%	131%
45-49	410,862	413	682	61%	91%	57,698	118	115	102%	154%
50-54	255,931	405	656	62%	86%	35,625	150	114	131%	182%
55-59	102,717	233	405	57%	84%	15,885	101	84	120%	176%
60-64	52,159	211	343	62%	85%	9,475	96	83	115%	160%
65-69	34,605	208	379	55%	82%	6,566	109	91	119%	177%
70-74	18,252	172	354	49%	83%	3,507	82	81	100%	172%
75-79	5,983	101	205	49%	89%	1,446	44	56	78%	141%
80-84	1,342	53	81	65%	91%	372	22	23	95%	133%
85+	129	8	14	57%	104%	64	5	10	52%	95%
Age 15+	3,360,584	2,766	4,627	60%	89%	585,111	1,003	959	105%	155%

As expected, non-smokers have lower than average mortality, the discount in general increasing with age. Over all lives, smoker experience is 176% of that of non-smokers.

The following two tables show the results for males and females separately. Notable is the proportion of smokers in the assured population, with an average of 24% for males and 7% for females, these being consistent with adult prevalence in Hong Kong.

Life Only Age Last	Experience for Male Non-Smokers, All Durations					Experience for Female Non-Smokers, All Durations				
	Lives Exposed	Actual Claims	Expected Claims	A/E Lives	NSm/Avg Lives	Lives Exposed	Actual Claims	Expected Claims	A/E Lives	NSm/Avg Lives
15-19	60,835	9	22	40%	90%	58,223	6	10	60%	96%
20-24	120,477	33	63	53%	96%	144,750	12	30	39%	79%
25-29	167,259	55	78	70%	88%	242,016	34	61	55%	100%
30-34	196,760	86	110	78%	96%	297,795	73	105	70%	89%
35-39	263,681	121	226	54%	89%	349,615	121	187	65%	94%
40-44	266,929	218	361	60%	92%	310,266	196	257	76%	96%
45-49	188,882	255	398	64%	88%	221,980	157	284	55%	99%
50-54	112,696	226	379	60%	80%	143,235	179	277	65%	95%
55-59	41,738	122	231	53%	76%	60,979	110	174	64%	96%
60-64	20,712	116	198	58%	78%	31,447	95	144	66%	99%
65-69	12,187	104	189	55%	77%	22,419	104	190	55%	88%
70-74	5,905	88	156	57%	84%	12,348	83	198	42%	87%
75-79	1,810	45	84	53%	85%	4,174	56	121	46%	94%
80-84	397	24	32	75%	87%	945	28	49	58%	95%
85+	33	3	5	52%	104%	96	6	9	59%	99%
Age 15+	1,460,299	1,506	2,533	59%	85%	1,900,285	1,261	2,095	60%	95%

Life Only Age Last	Experience for Male Smokers, All Durations					Experience for Female Smokers, All Durations				
	Lives Exposed	Actual Claims	Expected Claims	A/E Lives	SM/Avg Lives	Lives Exposed	Actual Claims	Expected Claims	A/E Lives	SM/Avg Lives
15-19	18,472	4	7	59%	132%	13,380	2	2	73%	117%
20-24	40,596	13	21	62%	112%	22,286	5	5	116%	236%
25-29	60,390	30	28	106%	133%	26,070	4	7	54%	98%
30-34	68,970	35	38	91%	112%	22,958	15	8	188%	239%
35-39	78,416	56	67	83%	138%	18,860	15	10	150%	217%
40-44	71,360	83	96	86%	131%	12,716	16	10	150%	190%
45-49	50,181	111	106	105%	144%	7,517	7	10	76%	135%
50-54	31,588	135	107	127%	170%	4,037	14	8	184%	271%
55-59	14,000	92	78	118%	170%	1,885	8	5	149%	225%
60-64	7,884	89	76	118%	158%	1,591	6	7	86%	128%
65-69	4,994	86	78	111%	155%	1,572	23	13	168%	270%
70-74	2,341	59	62	95%	141%	1,166	22	19	116%	238%
75-79	778	31	36	85%	135%	668	13	20	66%	134%
80-84	152	14	12	114%	133%	220	9	11	75%	122%
85+	39	4	8	49%	98%	25	2	3	61%	102%
Age 15+	450,161	842	820	103%	147%	134,950	160	139	116%	182%

3.4 Medical v non-medical

Policy applications with large sums assured or on lives not acceptable on a non-medical assessment are subject to medical underwriting, with a range of medical tests required prior to policy issue. The following table provides this split and compares the A/E ratio for each against the combined average A/E ratio.

Life Only Age Last	Experience for Medical, All Durations					Experience for Non-Medical, All Durations				
	Lives Exposed	Actual Claims	Expected Claims	A/E Lives	Med/Avg Lives	Lives Exposed	Actual Claims	Expected Claims	A/E Lives	Non-Med/Avg Lives
0-4	8,461	1	2	38%	98%	418,796	44	114	39%	100%
5-9	15,448	5	2	325%	517%	598,125	33	58	56%	89%
10-14	15,909	2	2	94%	109%	527,811	58	68	86%	100%
15-19	15,017	-	4	0%	0%	459,519	76	123	62%	103%
20-24	24,805	8	9	85%	121%	631,374	164	235	70%	99%
25-29	47,672	16	17	98%	108%	859,972	276	308	90%	100%
30-34	76,733	29	35	83%	94%	1,031,425	415	466	89%	100%
35-39	124,442	83	89	93%	119%	1,279,301	685	896	76%	98%
40-44	161,347	192	188	102%	118%	1,208,830	1,135	1,349	84%	97%
45-49	160,732	234	294	80%	98%	851,021	1,198	1,476	81%	100%
50-54	143,520	320	410	78%	95%	520,468	1,176	1,410	83%	102%
55-59	91,573	315	414	76%	94%	202,198	716	864	83%	103%
60-64	77,140	439	567	77%	94%	84,708	523	600	87%	106%
65-69	51,729	487	611	80%	96%	51,345	521	603	87%	104%
70-74	24,790	361	508	71%	89%	30,938	550	636	86%	109%
75-79	8,816	212	318	67%	96%	9,783	245	343	71%	103%
80-84	2,300	92	148	62%	93%	1,166	54	70	76%	115%
85+	449	25	66	38%	71%	62	14	7	196%	363%
All Ages	1,050,882	2,821	3,686	77%	95%	8,766,841	7,884	9,625	82%	102%

Overall, the medical experience is better than non-medical, although the benefit is only really obvious for older ages and in the 35-44 age range the medical experience is actually worse than non-medical. However, if the above analysis of A/E ratios is performed on an amounts basis, all ages medical experience is 92% of the average and non-medical is 104%, a wider differential, and the age 35-44 medical experience is marginally better than non-medical.

3.5 Impact of acceleration rider benefits

The previous results tables in this section are based on policies providing only life benefits. The HKA01 study considered all policies providing life benefits, i.e. including those with accelerated critical illness benefits. The following table compares experience for policies providing only life benefits with that for all policies providing life benefits.

Age Last	Experience for Life Only, Duration 2+					Experience for All Life, Duration 2+				
	Lives Exposed	Actual Claims	Expected Claims	A/E Lives	A/E Amounts	Lives Exposed	Actual Claims	Expected Claims	A/E Lives	A/E Amounts
0-4	188,244	18	27	67%	48%	211,395	19	30	63%	49%
5-9	448,057	28	44	65%	55%	483,213	30	47	64%	52%
10-14	412,026	53	53	100%	125%	437,466	54	56	96%	116%
15-19	332,105	58	87	67%	64%	360,376	64	95	68%	62%
20-24	356,724	109	134	82%	82%	472,544	134	174	77%	78%
25-29	571,437	218	204	107%	102%	899,234	302	316	96%	89%
30-34	789,652	349	358	97%	88%	1,205,364	454	541	84%	76%
35-39	1,056,772	667	747	89%	79%	1,482,928	798	1,036	77%	70%
40-44	1,053,701	1,155	1,199	96%	82%	1,378,681	1,338	1,549	86%	73%
45-49	781,980	1,266	1,394	91%	87%	972,567	1,429	1,709	84%	79%
50-54	517,474	1,307	1,452	90%	74%	618,403	1,433	1,710	84%	69%
55-59	234,377	918	1,041	88%	84%	267,343	978	1,171	84%	81%
60-64	133,478	854	974	88%	81%	140,392	884	1,019	87%	80%
65-69	86,098	914	1,021	90%	79%	86,971	925	1,030	90%	81%
70-74	48,870	847	1,007	84%	69%	48,921	849	1,008	84%	69%
75-79	16,550	426	590	72%	54%	16,553	426	590	72%	54%
80-84	3,227	143	205	70%	57%	3,227	144	205	70%	57%
85+	507	40	73	54%	34%	507	40	73	54%	34%
All Ages	7,031,279	9,369	10,610	88%	80%	9,086,085	10,298	12,358	83%	74%

In line with expectations, the inclusion of life policies with acceleration rider benefits results in lower mortality on both a lives and amounts basis.

3.6 Trends in mortality

Whilst it is possible to consider the change in experience between this study and that performed in 2001, there is sufficient variation in experience at a company level to question the validity of such an approach, noting that the participating companies and their individual contribution to the data differs materially between the two studies. However, the table in section 3.5 does show that the experience for 2000-2003 in this study is 10% to 15% lower than that underlying the HKA01 study which has a central year of 1997, and it is highly likely that some of this differential is attributable to general mortality improvements over time.

Although there are only four calendar years of results within this study, the data is consistent in each, and therefore a review of trends within the study period is valid. The following table looks at the overall A/E ratios by year, showing an improving trend over the observation period.

Year	Experience for Life Only, Duration 2+					Experience for All Life, Duration 2+				
	Lives Exposed	Actual Claims	Expected Claims	A/E Lives	A/E Amounts	Lives Exposed	Actual Claims	Expected Claims	A/E Lives	A/E Amounts
2000	1,540,419	1,974	2,109	94%	81%	1,929,270	2,131	2,419	88%	76%
2001	1,691,777	2,210	2,469	90%	83%	2,170,814	2,405	2,864	84%	76%
2002	1,836,694	2,442	2,837	86%	79%	2,401,475	2,727	3,322	82%	74%
2003	1,962,389	2,743	3,195	86%	78%	2,584,526	3,034	3,752	81%	73%
00-03	7,031,279	9,369	10,610	88%	80%	9,086,085	10,298	12,358	83%	74%

The trend of improvement is less obvious when the impact of gender mix is removed, as shown below.

Life Only	Year	Experience for Male Lives, Duration 2+				Experience for Female Lives, Duration 2+					
		Lives Exposed	Actual Claims	Expected Claims	A/E Lives	A/E Amounts	Lives Exposed	Actual Claims	Expected Claims	A/E Lives	A/E Amounts
	2000	865,693	1,307	1,446	90%	81%	674,725	667	664	101%	82%
	2001	934,922	1,524	1,660	92%	81%	756,855	686	809	85%	89%
	2002	997,936	1,632	1,874	87%	74%	838,758	810	963	84%	92%
	2003	1,046,501	1,779	2,076	86%	76%	915,888	964	1,118	86%	84%
	00-03	3,845,052	6,242	7,056	88%	78%	3,186,227	3,127	3,554	88%	87%

This analysis highlights the influence of different parameters on overall results, and acts as a note of caution when interpreting all the tables in this report.

4. Critical Illness Experience

A range of data was requested for policies with critical illness benefits. The vast majority of participating companies were able to provide information on both exposures and claims on a lives and amounts basis for policies providing life cover with accelerated critical illness benefits separate from policies providing only critical illness benefits. The data identified the life and critical illness components separately, with any residual life benefit remaining after a critical illness claim being subsequently recorded as a policy with only life benefits.

The analysis in this section is based on all data provided by the participating companies for the years 2000 to 2003. Within this data there is a range of benefits payable and a range of approaches as to how exposures and claims are allocated, although it should be noted that the vast majority of claims are allocated by date of event rather than the variety of alternatives. Overall, there is sufficient consistency within the data provided for the results to be representative of a typical critical illness contract in Hong Kong.

Recent assured lives experience from the UK suggests a relatively lengthy delay in the reporting of critical illness claims when compared to life claims. This study did not investigate reporting delays in Hong Kong, but it is worth emphasising that it is based on 4 continuous years of data collected on average more than 6 months after the end of the last year. However, when reviewing the critical illness results the potential for significant delays should be noted, see section 4.5.

4.1 Claim rates

4.1.1 Life plus Critical Illness

The table below shows the claim rate for life and critical illness claims combined under policies providing life cover with accelerated critical illness benefits. This provides an estimate of the overall claim rate under these policies.

Life + CI Age Last	Experience for Male Lives, Duration 2+					Experience for Female Lives, Duration 2+				
	Lives Exposed	Life Claims	CI Claims	Rate ‰ Lives	Rate ‰ Amounts	Lives Exposed	Life Claims	CI Claims	Rate ‰ Lives	Rate ‰ Amounts
0-4	11,975	1	3	0.29	0.40	11,176	-	-	0.00	0.00
5-9	18,452	2	4	0.31	0.22	16,704	-	1	0.06	0.04
10-14	13,586	1	1	0.15	0.18	11,855	-	-	0.00	0.00
15-19	14,756	5	2	0.46	0.26	13,515	1	3	0.30	0.40
20-24	51,085	15	9	0.47	0.52	64,734	10	18	0.43	0.44
25-29	133,663	59	50	0.81	0.71	194,133	25	78	0.53	0.52
30-34	177,041	65	112	1.00	1.08	238,671	40	180	0.92	0.89
35-39	198,446	86	175	1.31	1.32	227,711	45	333	1.66	1.76
40-44	159,415	121	242	2.27	2.12	165,565	62	342	2.44	2.43
45-49	88,979	111	206	3.56	3.38	101,608	52	324	3.70	4.05
50-54	44,896	81	163	5.45	5.09	56,034	44	185	4.10	4.29
55-59	13,883	46	93	10.00	10.78	19,082	14	57	3.69	4.14
60-64	2,932	20	29	16.82	11.97	3,982	10	20	7.43	5.78
65-69	403	7	9	39.53	44.51	470	4	3	14.82	33.05
70-74	18	1	-	52.21	28.23	33	1	1	59.65	42.97
75-79	-	-	-	0.00	0.00	3	-	-	0.00	0.00
80-84	-	-	-	0.00	0.00	-	1	-	0.00	0.00
85+	-	-	-	0.00	0.00	-	-	-	0.00	0.00
All Ages	929,531	619	1,097	1.85	1.66	1,125,275	309	1,545	1.65	1.55

It should be noted that a small number of companies representing less than 5% of the exposure did not report life claims in the above format, and therefore the above underestimates the actual life claims.

The data shows a rate of claim that increase with age, with female claim rates being higher than those for males in the age band 35-49. The experience by amounts, whilst on an all ages basis looks to be 5%-10% better than on a lives basis, when considered in each age band appears to be at a similar level.

Also notable in the above numbers are the relative proportions of Life and Critical Illness claims. Under male policies, 36% of all claims were as a result of death, whilst for female policies the proportion drops to 17%.

Results, as seen in the above, can be difficult to interpret without a comparison to an expected. As there is no base table to compare with, expected claims have been calculated using the HKA01 mortality table, being the most obvious benchmark. The results are contained in the following table.

Life + CI Age Last	Experience for Male Lives, Duration 2+					Experience for Female Lives, Duration 2+				
	Lives Exposed	Actual Claims	Expected Claims	A/E Lives	A/E Amounts	Lives Exposed	Actual Claims	Expected Claims	A/E Lives	A/E Amounts
0-4	11,975	4	2	194%	267%	11,176	-	1	0%	0%
5-9	18,452	6	2	288%	205%	16,704	1	1	69%	44%
10-14	13,586	2	2	109%	130%	11,855	-	1	0%	0%
15-19	14,766	7	5	130%	73%	13,515	4	2	171%	231%
20-24	51,085	24	27	90%	100%	64,734	28	13	207%	208%
25-29	133,663	109	62	174%	152%	194,133	103	49	208%	204%
30-34	177,041	177	99	179%	193%	238,671	220	83	264%	255%
35-39	198,446	261	168	155%	155%	227,711	378	121	314%	333%
40-44	159,415	362	214	170%	159%	165,565	405	136	297%	298%
45-49	88,979	317	186	170%	163%	101,608	375	129	291%	320%
50-54	44,896	245	150	163%	153%	56,034	229	108	213%	225%
55-59	13,883	139	76	183%	198%	19,082	70	54	131%	147%
60-64	2,932	49	27	183%	130%	3,982	30	17	170%	132%
65-69	403	16	6	271%	305%	470	7	4	195%	440%
70-74	18	1	0	225%	121%	33	2	1	389%	283%
75-79	-	-	-	0%	0%	3	-	0	0%	0%
80-84	-	-	-	0%	0%	-	1	-	0%	0%
85+	-	-	-	0%	0%	-	-	-	0%	0%
All Ages	929,531	1,717	1,026	167%	162%	1,125,275	1,854	722	257%	273%

There is a reasonable degree of consistency in the male results with the shape of the HKA01 table, albeit at a much higher level. The female fit is less good, but sufficiently close to provide a useful comparison.

The A/E ratios highlight, firstly, that relative to pure mortality, female critical illness policies have a significantly higher claim ratio than males, and secondly, that experience on an amounts basis is overall not dissimilar to that measured on a lives basis.

4.1.2 Critical Illness component only

The table below shows the claim rate for critical illness claims under policies providing accelerated critical illness benefits and only critical illness benefits. This provides an estimate of the critical illness incidence rate, noting the comments under section 4.5 in respect of the impact on these claim rates of reporting delays.

All CI Age Last	Experience for Male Lives, Duration 2+				Experience for Female Lives, Duration 2+			
	Lives Exposed	CI Claims	Rate ‰ Lives	Rate ‰ Amounts	Lives Exposed	CI Claims	Rate ‰ Lives	Rate ‰ Amounts
0-4	20,005	3	0.17	0.25	18,258	2	0.11	0.08
5-9	31,922	4	0.11	0.11	28,096	4	0.14	0.15
10-14	22,421	1	0.04	0.09	19,435	1	0.05	0.08
15-19	21,650	2	0.09	0.04	19,029	4	0.21	0.34
20-24	61,029	18	0.30	0.31	77,037	19	0.25	0.25
25-29	157,185	60	0.38	0.37	229,913	105	0.46	0.48
30-34	210,208	140	0.67	0.76	285,968	237	0.83	0.81
35-39	238,271	212	0.89	0.84	276,799	423	1.53	1.65
40-44	193,536	300	1.55	1.41	202,467	442	2.18	2.25
45-49	108,033	254	2.35	2.47	122,298	406	3.32	3.81
50-54	54,025	207	3.84	3.62	67,157	233	3.46	3.83
55-59	16,613	109	6.55	6.57	22,716	81	3.57	4.43
60-64	3,622	32	8.95	6.08	4,808	26	5.33	4.54
65-69	436	9	20.64	22.97	530	4	7.51	7.21
70-74	18	-	0.00	0.00	33	1	30.41	17.38
75-79	-	-	0.00	0.00	3	-	0.00	0.00
80-84	-	-	0.00	0.00	-	-	0.00	0.00
85+	-	-	0.00	0.00	-	-	0.00	0.00
All Ages	1,138,973	1,353	1.19	1.11	1,374,547	1,988	1.45	1.45

Similar to earlier data, we see a rate of claim that increases with age, with female claim rates being higher than those for males in the age band 25-49, and significantly higher in the age band 35-49.

As above, actual claims are compared against expected based on the HKA01 mortality table. The results are contained in the following table.

All CI Age Last	Experience for Male Lives, Duration 2+					Experience for Female Lives, Duration 2+				
	Lives Exposed	Actual Claims	Expected Claims	A/E Lives	A/E Amounts	Lives Exposed	Actual Claims	Expected Claims	A/E Lives	A/E Amounts
0-4	20,005	3	3	117%	168%	18,258	2	2	112%	88%
5-9	31,922	4	3	108%	107%	28,096	4	2	161%	171%
10-14	22,421	1	3	33%	65%	19,435	1	2	42%	69%
15-19	21,650	2	7	26%	11%	19,029	4	3	122%	196%
20-24	61,029	18	32	58%	60%	77,037	19	16	119%	119%
25-29	157,185	60	73	82%	80%	229,913	105	59	180%	187%
30-34	210,208	140	117	120%	137%	285,968	237	100	237%	233%
35-39	238,271	212	202	105%	99%	276,799	423	147	288%	311%
40-44	193,536	300	259	116%	106%	202,467	442	167	265%	276%
45-49	108,033	254	226	113%	119%	122,298	406	156	261%	301%
50-54	54,025	207	180	115%	109%	67,157	233	129	180%	200%
55-59	16,613	109	91	120%	121%	22,716	81	64	127%	157%
60-64	3,622	32	33	98%	66%	4,808	26	21	122%	104%
65-69	436	9	6	142%	158%	530	4	4	99%	96%
70-74	18	-	0	0%	0%	33	1	1	198%	114%
75-79	-	-	-	0%	0%	3	-	0	0%	0%
80-84	-	-	-	0%	0%	-	-	-	0%	0%
85+	-	-	-	0%	0%	-	-	-	0%	0%
All Ages	1,138,973	1,353	1,238	109%	108%	1,374,547	1,988	872	228%	252%

As with the life plus critical illness analysis, there is a reasonable degree of consistency in the results with the shape of the HKA01 table and therefore the A/E ratio provides a useful benchmark across all ages. In this table there is evidence to suggest that for critical illness plans, experience on an amounts basis is higher than that measured on a lives basis for females.

4.2 Selection effect

The following tables show duration 0 and duration 1 actual claim rates for the critical illness component of all policies with critical illness benefits and compares with the expected claim rate under HKA01. The resulting A/E ratios are then compared with those for duration 2 + to give an indication of the impact of underwriting selection and any waiting period.

All CI Age Last	Experience for Male Lives, Duration 0					Experience for Female Lives, Duration 0				
	Lives Exposed	CI Claims	Rate % Lives	A/E Lives	Dur 0/2 + Lives	Lives Exposed	CI Claims	Rate % Lives	A/E Lives	Dur 0/2 + Lives
0-4	15,662	4	0.23	42%	35%	14,479	-	0.00	0%	0%
5-9	8,483	1	0.10	93%	86%	7,478	-	0.00	0%	0%
10-14	7,713	-	0.00	0%	0%	7,072	-	0.00	0%	0%
15-19	17,445	6	0.33	84%	322%	18,145	2	0.10	57%	47%
20-24	55,502	15	0.28	53%	91%	71,166	18	0.25	120%	101%
25-29	68,276	22	0.32	68%	83%	84,814	41	0.49	194%	108%
30-34	57,078	28	0.48	87%	73%	69,232	50	0.72	207%	87%
35-39	52,507	36	0.68	81%	77%	62,477	55	0.88	166%	58%
40-44	37,165	40	1.07	80%	69%	44,933	86	1.91	232%	88%
45-49	19,697	45	2.28	109%	97%	27,292	71	2.60	205%	78%
50-54	8,721	29	3.34	101%	88%	13,500	35	2.62	137%	76%
55-59	1,911	14	7.16	133%	111%	2,665	7	2.79	100%	79%
60-64	214	3	12.97	155%	159%	322	1	3.05	74%	61%
65-69	8	-	0.00	0%	0%	12	-	0.00	0%	0%
70-74	1	-	0.00	0%	0%	0	-	0.00	0%	0%
75-79	-	-	0.00	0%	0%	-	-	0.00	0%	0%
80-84	-	-	0.00	0%	0%	-	-	0.00	0%	0%
85+	-	-	0.00	0%	0%	-	-	0.00	0%	0%
All Ages	350,384	241	0.69	84%	77%	423,587	366	0.86	173%	76%

Duration 0 experience is clearly better than duration 2 +, overall around 24% lower for males and females combined. However, it should be noted that the majority of critical illness policies sold in Hong Kong apply a waiting period from policy commencement of up to 90 days, and the inability to claim during this period has not been allowed for in the above analysis.

This compares with experience for policies with only life benefits where the claims experience in duration 0 was 58% lower than duration 2 +.

All CI Age Last	Experience for Male Lives, Duration 1					Experience for Female Lives, Duration 1				
	Lives Exposed	CI Claims	Rate % Lives	A/E Lives	Dur 1/2 + Lives	Lives Exposed	CI Claims	Rate % Lives	A/E Lives	Dur 0/2 + Lives
0-4	12,939	4	0.30	126%	107%	11,902	1	0.08	34%	30%
5-9	7,873	-	0.00	0%	0%	6,909	-	0.00	0%	0%
10-14	6,863	4	0.58	423%	1283%	6,227	2	0.31	256%	611%
15-19	10,654	1	0.14	36%	138%	10,356	2	0.19	107%	88%
20-24	39,843	7	0.17	32%	56%	53,421	11	0.20	96%	81%
25-29	58,641	22	0.38	82%	100%	79,349	49	0.62	248%	138%
30-34	51,510	29	0.57	102%	86%	67,398	51	0.76	218%	92%
35-39	48,740	46	0.94	111%	105%	61,372	85	1.38	260%	90%
40-44	35,664	60	1.69	126%	109%	45,135	97	2.16	262%	99%
45-49	19,448	46	2.34	112%	100%	27,847	84	3.03	238%	91%
50-54	9,092	39	4.31	130%	113%	14,553	47	3.21	168%	93%
55-59	2,316	11	4.66	87%	73%	3,481	16	4.53	163%	129%
60-64	343	2	5.47	64%	65%	470	2	3.77	92%	75%
65-69	9	-	0.00	0%	0%	17	1	48.99	729%	734%
70-74	1	-	0.00	0%	0%	1	-	0.00	0%	0%
75-79	-	-	0.00	0%	0%	-	-	0.00	0%	0%
80-84	-	-	0.00	0%	0%	-	-	0.00	0%	0%
85+	-	-	0.00	0%	0%	-	-	0.00	0%	0%
All Ages	303,937	271	0.89	104%	95%	388,437	448	1.15	218%	96%

Duration 1 experience is marginally better than duration 2 +, overall around 4% lower for males and females combined. This compares with experience for policies with only life benefits where the claims experience in duration 1 was 28% lower than duration 2 +.

Any true select effect on critical illness experience appears to be marginal.

4.3 Smoking differentials

Around 63% of the lives with critical illness benefits within this study have a smoker status identified. The following tables show the experience for non-smokers and smokers, comparing the A/E ratio for each against the combined average A/E ratio.

All CI	Experience for Male Non-Smokers, All Durations					Experience for Female Non-Smokers, All Durations				
	Lives Exposed	CI Claims	Rate % Lives	A/E Lives	NSm/Avg Lives	Lives Exposed	CI Claims	Rate % Lives	A/E Lives	NSm/Avg Lives
15-19	19,258	5	0.27	70%	79%	23,318	1	0.04	20%	53%
20-24	78,820	23	0.30	57%	103%	128,491	27	0.21	100%	94%
25-29	139,349	36	0.26	55%	91%	251,665	108	0.43	170%	95%
30-34	150,313	84	0.56	100%	98%	268,068	199	0.74	213%	98%
35-39	159,816	108	0.67	79%	88%	254,862	298	1.17	221%	100%
40-44	123,827	133	1.07	80%	91%	182,510	329	1.80	219%	99%
45-49	66,791	117	1.76	84%	89%	110,187	293	2.66	209%	97%
50-54	31,823	96	3.01	90%	92%	59,646	177	2.97	155%	101%
55-59	8,977	49	5.47	101%	102%	17,904	62	3.46	124%	100%
60-64	1,572	9	6.01	67%	76%	2,898	11	3.95	93%	103%
65-69	78	-	0.00	0%	0%	146	2	12.41	171%	105%
70-74	2	-	0.00	0%	0%	9	-	0.00	0%	0%
75-79	-	-	0.00	0%	0%	1	-	0.00	0%	0%
All Ages	780,624	661	0.85	82%	92%	1,299,706	1,508	1.16	190%	99%

All CI	Experience for Male Smokers, All Durations					Experience for Female Smokers, All Durations				
	Lives Exposed	CI Claims	Rate % Lives	A/E Lives	Sm/Avg Lives	Lives Exposed	CI Claims	Rate % Lives	A/E Lives	Sm/Avg Lives
15-19	4,285	3	0.67	164%	186%	2,878	1	0.33	183%	478%
20-24	26,822	7	0.26	50%	92%	17,193	6	0.33	159%	148%
25-29	52,400	19	0.35	76%	125%	26,520	18	0.69	273%	152%
30-34	55,897	34	0.61	109%	106%	21,393	20	0.94	272%	125%
35-39	51,013	54	1.06	126%	139%	13,495	16	1.17	225%	102%
40-44	33,814	53	1.56	117%	132%	7,034	16	2.20	270%	122%
45-49	17,442	50	2.84	136%	143%	3,459	18	5.34	425%	197%
50-54	8,271	36	4.36	131%	133%	1,590	4	2.37	124%	80%
55-59	2,348	11	4.83	89%	91%	495	2	3.88	138%	111%
60-64	346	6	16.28	180%	207%	99	-	0.00	0%	0%
65-69	13	-	0.00	0%	0%	7	-	0.00	0%	0%
70-74	0	-	0.00	0%	0%	-	-	0.00	0%	0%
75-79	-	-	0.00	0%	0%	-	-	0.00	0%	0%
All Ages	252,651	272	1.08	114%	128%	94,164	100	1.07	250%	129%

A total of 14% of smoker differentiated policies were classified as smokers, but when split by male and female lives the proportion of smokers is 24% and 7% respectively, just as with the life only policies.

As expected, non-smokers have a lower than average rate of claim, and whilst the relative difference is narrower than the equivalent for the life only results, this could in large part be down to the younger age profile of critical illness plans.

4.4 Medical v non-medical

As with life only policies, critical illness policy applications with large sums assured or on lives not acceptable on a non-medical assessment are subject to medical underwriting, with a range of medical tests required prior to policy issue. The following table provides this split and compares the A/E ratio for each against the combined average A/E ratio.

All CI	Experience for Male Medical, All Durations					Experience for Female Medical, All Durations				
	Lives Exposed	CI Claims	Rate % Lives	A/E Lives	Med/Avg Lives	Lives Exposed	CI Claims	Rate % Lives	A/E Lives	Med/Avg Lives
15-19	1,639	-	0.00	0%	0%	1,514	-	0.00	0%	0%
20-24	5,780	1	0.17	33%	66%	9,115	1	0.11	53%	47%
25-29	14,333	1	0.07	15%	19%	23,548	14	0.58	228%	116%
30-34	23,228	16	0.68	122%	110%	31,443	21	0.66	188%	82%
35-39	34,181	24	0.69	80%	79%	36,744	53	1.43	268%	101%
40-44	38,673	50	1.28	94%	84%	34,019	71	2.08	250%	96%
45-49	30,408	76	2.51	119%	106%	29,322	109	3.71	288%	116%
50-54	19,713	79	4.02	119%	103%	22,283	81	3.61	186%	108%
55-59	7,961	56	7.07	127%	108%	10,457	42	4.05	141%	110%
60-64	2,645	23	8.54	93%	95%	3,666	19	5.13	117%	100%
65-69	378	9	23.83	164%	120%	472	4	8.44	111%	97%
70-74	20	-	0.00	0%	0%	34	1	29.52	193%	101%
75-79	-	-	0.00	0%	0%	3	-	0.00	0%	0%
All Ages	178,960	334	1.87	108%	103%	202,618	414	2.05	209%	95%

All CI	Experience for Male Non-Medical, All Durations					Experience for Female Non-Medical, All Durations				
	Lives Exposed	CI Claims	Rate % Lives	A/E Non-Med/ Lives	Med/Avg Lives	Lives Exposed	CI Claims	Rate % Lives	A/E Non-Med/ Lives	Med/Avg Lives
15-19	48,110	9	0.19	51%	103%	46,016	8	0.17	96%	103%
20-24	150,594	39	0.26	50%	101%	192,510	46	0.24	116%	103%
25-29	269,768	103	0.38	82%	104%	370,527	182	0.49	194%	99%
30-34	295,568	181	0.61	110%	99%	391,154	317	0.81	233%	101%
35-39	305,337	270	0.89	105%	102%	363,905	510	1.40	265%	100%
40-44	227,693	350	1.54	115%	103%	258,516	555	2.15	261%	100%
45-49	116,771	268	2.30	110%	98%	148,115	453	3.06	241%	97%
50-54	52,125	197	3.77	114%	99%	72,927	234	3.21	168%	98%
55-59	12,879	77	5.98	112%	95%	18,405	62	3.37	121%	94%
60-64	1,534	14	9.44	106%	109%	1,934	10	4.96	118%	101%
65-69	75	-	0.00	0%	0%	87	1	9.57	133%	117%
70-74	0	-	0.00	0%	0%	0	-	0.00	0%	0%
75-79	-	-	0.00	0%	0%	-	-	0.00	0%	0%
All Ages	1,480,454	1,510	1.02	104%	99%	1,864,098	2,378	1.28	222%	101%

The results show no clear difference either way, and the same is true if the analysis is performed on an amounts basis.

4.5 Trends in incidence of critical illness

The following table looks at the A/E ratios by year for critical illness claims with expected based on the HKA01 mortality table.

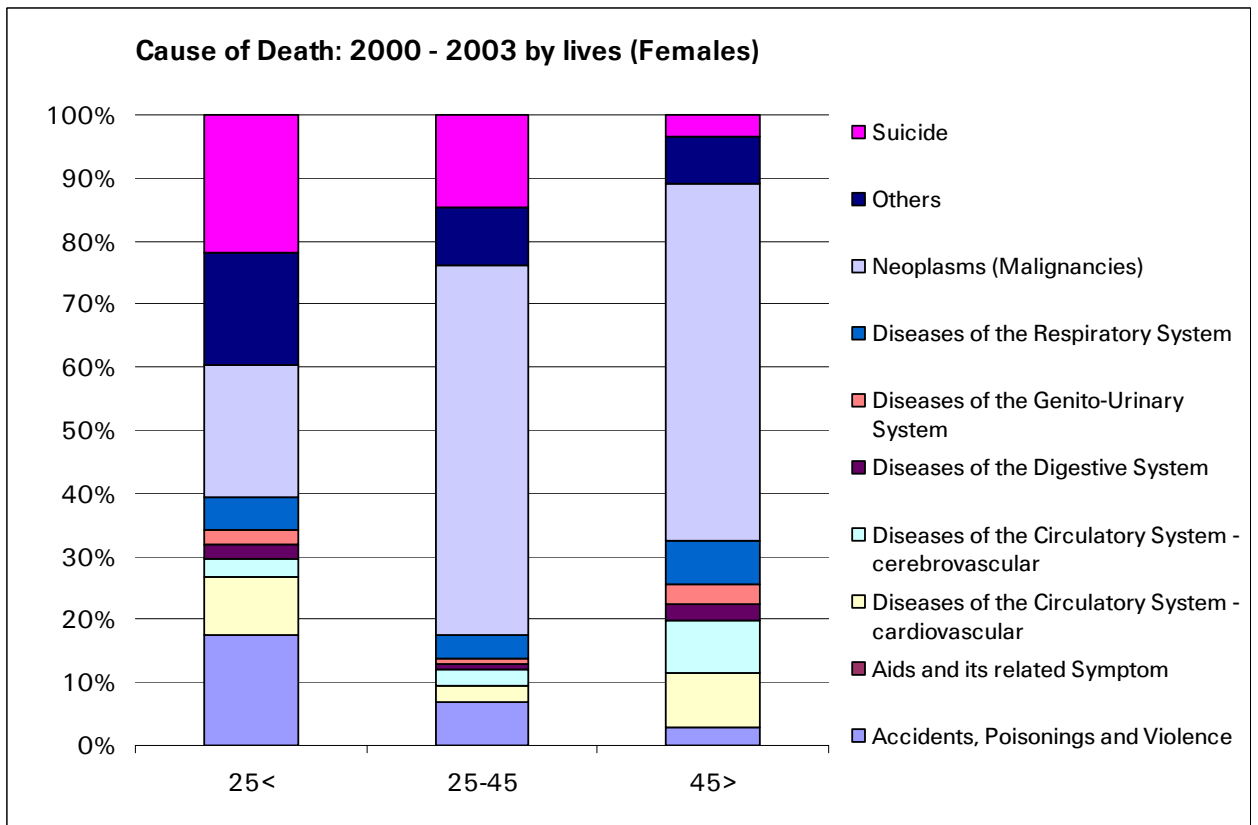
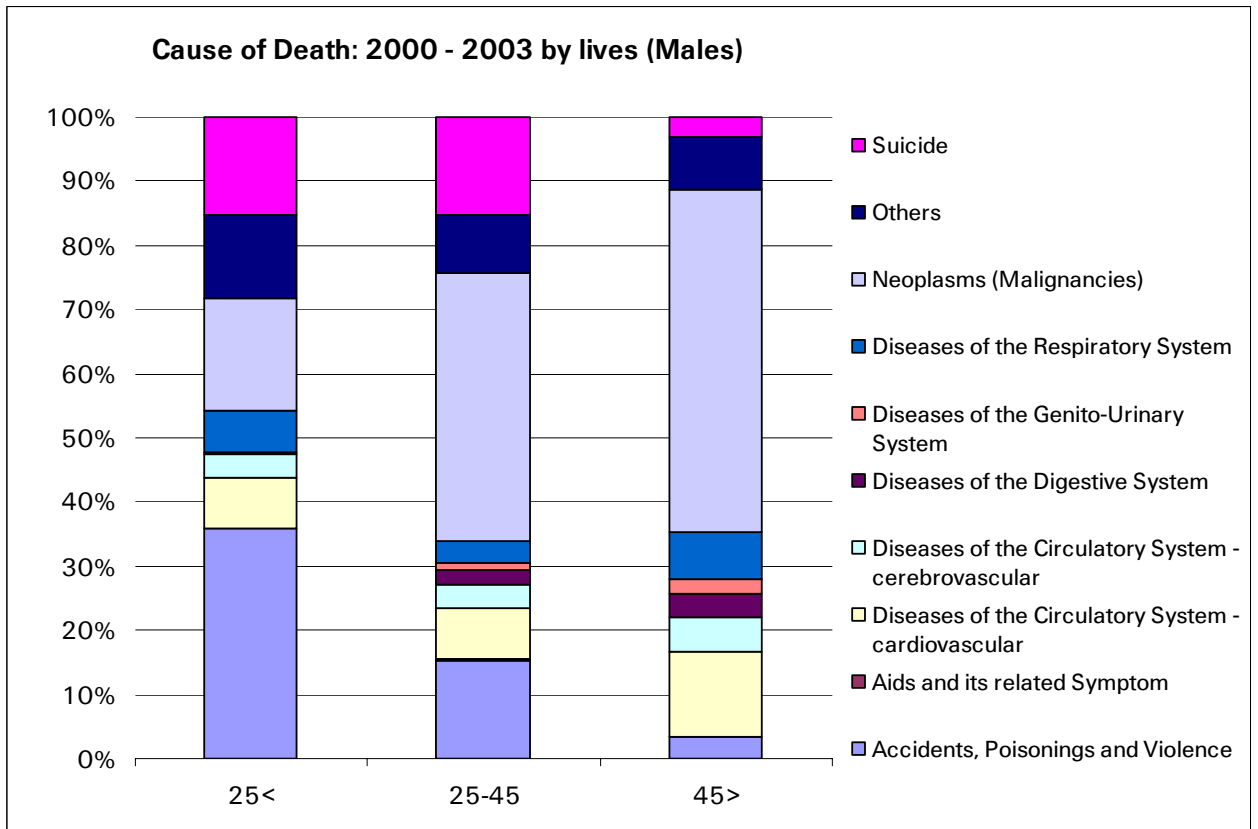
All CI	Experience for Male Lives, Duration 2+					Experience for Female Lives, Duration 2+				
	Lives Exposed	Actual Claims	Expected Claims	A/E Lives	A/E Amounts	Lives Exposed	Actual Claims	Expected Claims	A/E Lives	A/E Amounts
2000	222,240	261	226	115%	118%	246,926	338	144	235%	254%
2001	266,518	323	282	115%	109%	315,578	448	193	233%	267%
2002	309,431	410	340	120%	122%	381,889	606	245	247%	282%
2003	340,784	360	390	92%	89%	430,153	596	290	205%	216%
00-03	1,138,973	1,353	1,238	109%	108%	1,374,547	1,988	872	228%	252%

Whilst there is no obvious trend, there is a clear indication of under-reporting of claims in 2003, most likely linked to the lengthy delays in claim notification mentioned earlier. Bringing the 2003 A/E ratio up to the level of prior years would require a 20% increase in actual claims in 2003, the equivalent of a 6% increase in actual claims over the 4 year period. This provides a crude estimate of the adjustment required to incidence rates in section 4.1.2 to allow for reporting delays.

5. Cause of Claim Study

As in previous studies, data was provided on cause of death split into ten categories.

5.1 Cause of death breakdown



The charts on the previous page clearly show that cancer is the dominant cause of claim, with accidents and suicides both being major causes of death for younger lives.

5.2 Comparison with HKA97 and HKA01

Cause of death for life only policies is compared with similar data provided under the HKA01 and HKA97 studies in the three tables below.

Life Only Cause of Death	Males under 25 years old				Females under 25 years old			
	HKA97	HKA01	2000-2003	Claim #	HKA97	HKA01	2000-2003	Claim #
Accidents, Poisonings and Violence	42%	38%	36%	92	29%	38%	18%	23
Aids and its related Symptom	0%	0%	0%	0	0%	0%	0%	0
Diseases of the Circulatory System - cardiovascular	7%	7%	8%	20	12%	7%	9%	12
Diseases of the Circulatory System - cerebrovascular		2%	4%	9		2%	3%	4
Diseases of the Digestive System	2%	2%	0%	1	2%	2%	2%	3
Diseases of the Genito-Urinary System	1%	0%	0%	0	1%	0%	2%	3
Diseases of the Respiratory System	5%	6%	6%	16	5%	6%	5%	7
Neoplasms (Malignancies)	10%	15%	17%	44	12%	15%	21%	28
Others	27%	22%	13%	33	28%	22%	18%	24
Suicide	8%	9%	15%	39	13%	9%	22%	29

Life Only Cause of Death	Males between 25-45 years old				Females between 25-45 years old			
	HKA97	HKA01	2000-2003	Claim #	HKA97	HKA01	2000-2003	Claim #
Accidents, Poisonings and Violence	20%	18%	15%	310	12%	10%	7%	72
Aids and its related Symptom	0%	0%	0%	4	0%	0%	0%	0
Diseases of the Circulatory System - cardiovascular	9%	8%	8%	163	10%	6%	3%	28
Diseases of the Circulatory System - cerebrovascular		4%	4%	71		3%	3%	27
Diseases of the Digestive System	6%	4%	2%	44	3%	2%	1%	10
Diseases of the Genito-Urinary System	1%	1%	1%	23	3%	1%	1%	8
Diseases of the Respiratory System	7%	3%	3%	70	6%	4%	4%	39
Neoplasms (Malignancies)	29%	41%	42%	846	37%	47%	59%	623
Others	21%	14%	9%	186	18%	14%	9%	98
Suicide	7%	8%	15%	307	12%	13%	15%	154

Life Only Cause of Death	Males over 45 years old				Females over 45 years old			
	HKA97	HKA01	2000-2003	Claim #	HKA97	HKA01	2000-2003	Claim #
Accidents, Poisonings and Violence	4%	5%	3%	164	3%	2%	3%	65
Aids and its related Symptom	0%	0%	0%	4	0%	0%	0%	4
Diseases of the Circulatory System - cardiovascular	20%	14%	13%	631	18%	12%	9%	205
Diseases of the Circulatory System - cerebrovascular		5%	5%	258		7%	8%	195
Diseases of the Digestive System	7%	4%	4%	174	5%	3%	2%	59
Diseases of the Genito-Urinary System	2%	1%	2%	103	4%	3%	3%	74
Diseases of the Respiratory System	11%	9%	7%	350	13%	8%	7%	164
Neoplasms (Malignancies)	39%	53%	53%	2552	42%	55%	57%	1339
Others	15%	7%	8%	391	13%	8%	7%	171
Suicide	2%	3%	3%	150	1%	3%	4%	84

Apparent trends include an increase in proportions of deaths from cancer and suicide, and a general decrease in proportions of deaths from accidents and others, although it is possible in both cases that such trends could in part arise from improvements in claims classification.

6. Lapse / Surrender Experience

6.1 Rates by duration and policy type

The following two tables estimate the number of policies that go off, be it by way of lapse, surrender, claim or maturity. The implied rate of exit is calculated by comparing the trend in exposure from year to year over the study period and then estimating the annual rate of exit that applied (assuming that half of exits occur evenly over the policy year and half at the end of the policy year). Exit rates are calculated on a lives and amounts basis by year and by policy type for duration 0 and duration 1 +.

Life Only	Duration 0		Duration 1		Duration 2+		Implied Rate of Exit			
	Lives Exposed	Amounts \$m Exposed	Lives Exposed	Amounts \$m Exposed	Lives Exposed	Amounts \$m Exposed	Lives Dur 0	Amounts Dur 0	Lives Dur 1 +	Amounts Dur 1 +
2000	393,156	152,603	291,660	117,904	1,540,419	588,860				
2001	371,318	155,218	321,466	126,396	1,691,777	658,312	22%	21%	8%	7%
2002	385,055	161,286	312,255	132,182	1,836,694	725,340	19%	18%	9%	8%
2003	384,440	156,009	327,096	140,372	1,962,389	793,850	18%	15%	9%	7%
00-03	1,533,968	625,116	1,252,476	516,853	7,031,279	2,766,361	20%	18%	8%	7%

Life + CI	Duration 0		Duration 1		Duration 2+		Implied Rate of Exit			
	Lives Exposed	Amounts \$m Exposed	Lives Exposed	Amounts \$m Exposed	Lives Exposed	Amounts \$m Exposed	Lives Dur 0	Amounts Dur 0	Lives Dur 1 +	Amounts Dur 1 +
2000	195,886	86,209	149,229	66,301	388,851	192,551				
2001	163,599	81,223	159,282	71,349	479,037	233,001	22%	20%	11%	10%
2002	136,747	73,965	134,568	68,072	564,780	273,054	20%	19%	12%	10%
2003	114,830	62,130	113,211	62,483	622,137	307,199	20%	18%	11%	10%
00-03	611,062	303,528	556,290	268,204	2,054,806	1,005,804	21%	19%	11%	10%

These results are just a by product of a claim study, however, the duration 0 rate should be indicative of the level of first year lapses for the policies covered by this study. It should be noted that there is a significant variation in these results by company.

7. Use of this Report

7.1 Considerations

As with previous studies, the data supporting this study has a number of deficiencies, and these should be taken into account when interpreting or using the result tables in this report.

General data issues include:

- the study is based on a large number of data points, and with such a volume of data from such a variety of sources, validity of all data can not be ensured
- whilst data has been collected some months after the end of the exposure period, claim reporting and claim administration systems imply an element of under-reporting of the true number of claim events
- the study only covers four years of exposure, and whilst it covers a large proportion of the policies in-force over this time, there remains a number of areas where data is relatively sparse
- the study pools experience data from a number of companies and considerable variations in experience between company have been observed
- even though the study sought to separate out the life component of critical illness policies, not all companies were able to supply data in this format, therefore some influence of acceleration benefits remains in the mortality data
- duration in-force clearly influences the expected claim rate, however, this effect has only been investigated, and allowed for, for durations 0 and 1
- critical illness cover does not provide a standard benefit like life cover, therefore the data is an amalgam of different benefits, but having said this, all have a common set of illnesses covered and this core is expected to constitute by far the majority of claims

The definition of Hong Kong long term insurance business from the Insurance Companies Ordinance should be noted, as it is these policies that have been reported. The relevant parts of the ordinance read as follows:

Hong Kong long term insurance business means any direct business, being long term business, in relation to which the risk is underwritten in Hong Kong, that is to say-

- i. the policy is issued in Hong Kong;
- ii. the proposal form, application form or any other form of a similar nature is signed in Hong Kong;
- iii. the proposal form, application form or any other form of a similar nature is submitted or received in Hong Kong;
- iv. the proposal form, application form or any other form of a similar nature is accepted in Hong Kong; or
- v. the risk is accepted in Hong Kong

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Appendix 8.1 Data for policies with only life benefits – Males

Life Only	Experience for Male Lives, Duration 2+						Life Only	Experience for Male Lives, Duration 2+					
Age Last	Lives Exposed	Actual Claims	Expected Claims	Claim Rate	HKA01	A/E Lives	Age Last	Lives Exposed	Actual Claims	Expected Claims	Claim Rate	HKA01	A/E Lives
0	2,155	2	2	0.93	1.00	93%	50	76,093	197	213	2.59	2.80	92%
1	3,068	-	1	0.00	0.26	0%	51	70,469	203	218	2.87	3.09	93%
2	22,645	4	4	0.16	0.16	98%	52	63,777	208	218	3.26	3.42	96%
3	32,940	1	5	0.03	0.15	19%	53	55,733	183	211	3.29	3.78	87%
4	39,487	-	5	0.00	0.13	0%	54	46,874	149	197	3.18	4.19	76%
5	44,902	4	5	0.08	0.12	68%	55	38,287	174	178	4.53	4.66	97%
6	48,084	2	5	0.04	0.11	33%	56	30,910	138	160	4.48	5.17	87%
7	49,780	8	5	0.15	0.10	151%	57	25,366	117	146	4.60	5.75	80%
8	50,004	3	5	0.06	0.10	56%	58	21,441	114	137	5.31	6.38	83%
9	48,778	1	5	0.02	0.10	21%	59	18,846	131	134	6.96	7.09	98%
10	47,478	6	5	0.12	0.10	119%	60	16,791	132	132	7.87	7.86	100%
11	46,474	8	5	0.16	0.11	146%	61	15,621	125	136	8.01	8.71	92%
12	44,880	8	6	0.17	0.13	133%	62	14,738	105	142	7.10	9.64	74%
13	43,590	8	7	0.18	0.15	117%	63	13,466	122	143	9.03	10.65	85%
14	41,819	4	8	0.10	0.18	52%	64	11,960	107	141	8.91	11.75	76%
15	39,484	4	9	0.10	0.22	43%	65	10,451	128	135	12.22	12.95	94%
16	37,894	8	10	0.22	0.27	81%	66	9,140	106	130	11.59	14.24	81%
17	36,634	4	12	0.10	0.33	31%	67	8,144	126	128	15.42	15.67	98%
18	35,334	10	14	0.27	0.40	69%	68	7,172	120	124	16.71	17.34	96%
19	34,676	9	17	0.25	0.48	53%	69	6,334	119	123	18.83	19.34	97%
20	34,958	14	18	0.40	0.53	76%	70	5,577	114	121	20.48	21.75	94%
21	35,915	14	20	0.39	0.55	71%	71	4,879	99	119	20.33	24.40	83%
22	37,462	19	20	0.51	0.54	95%	72	4,183	116	115	27.85	27.38	102%
23	39,625	12	21	0.31	0.52	60%	73	3,432	88	105	25.72	30.71	84%
24	42,675	15	21	0.35	0.49	72%	74	2,735	82	94	29.99	34.46	87%
25	46,573	24	22	0.51	0.48	107%	75	2,169	70	84	32.49	38.66	84%
26	50,561	39	23	0.77	0.46	165%	76	1,690	57	73	33.62	43.37	78%
27	55,135	20	25	0.36	0.46	79%	77	1,262	49	61	39.07	48.65	80%
28	59,631	35	28	0.59	0.46	128%	78	894	30	49	33.69	54.58	62%
29	63,273	26	30	0.41	0.47	88%	79	606	26	37	43.34	61.23	71%
30	66,986	29	33	0.43	0.49	87%	80	415	23	29	54.21	68.70	79%
31	70,912	45	37	0.64	0.52	124%	81	305	17	23	56.50	77.07	73%
32	75,845	41	42	0.54	0.55	98%	82	238	14	21	57.96	86.46	67%
33	81,707	55	48	0.68	0.59	115%	83	177	12	17	66.55	97.00	69%
34	88,360	48	56	0.54	0.64	85%	84	121	11	13	93.94	108.82	86%
35	96,115	67	67	0.70	0.70	100%	85	80	6	10	69.58	122.09	57%
36	105,360	67	80	0.64	0.76	83%	86	52	3	7	58.43	136.96	43%
37	114,695	64	96	0.56	0.84	67%	87	33	-	5	0.00	153.66	0%
38	121,968	96	113	0.78	0.92	85%	88	26	3	4	97.49	172.38	57%
39	126,369	100	128	0.79	1.02	78%	89	22	1	4	46.02	193.39	24%
40	127,776	127	143	1.00	1.12	89%	90	20	8	4	392.16	216.96	181%
41	126,828	152	156	1.20	1.23	98%	91	14	3	3	225.99	243.40	93%
42	125,442	174	170	1.39	1.35	103%	92	11	-	3	0.00	273.07	0%
43	121,593	179	180	1.47	1.48	99%	93	9	-	3	0.00	306.35	0%
44	116,476	146	189	1.25	1.63	77%	94	8	-	3	0.00	343.68	0%
45	109,718	194	195	1.77	1.78	99%	95	7	-	3	0.00	385.57	0%
46	101,088	183	196	1.81	1.94	93%	96	2	-	1	0.00	432.56	0%
47	93,376	171	198	1.83	2.12	86%	97	0	1	0	2000.00	485.28	412%
48	86,750	162	201	1.87	2.32	80%	98	-	-	-	0.00	544.42	0%
49	81,196	197	207	2.43	2.55	95%	99	-	-	-	0.00	610.77	0%
							100	-	-	-	0.00	685.20	0%

Data notes:

- The above data is representative of policies offering only life benefits.
- Less than 2% of the life only data is contributed by the life component of policies offering life plus critical illness acceleration benefits policies.
- Data for ages 0 and 1 have been used as reported, with no re-allocation either from duration 0 to duration 2+ or vice versa.
- In theory there should be no duration 2+ exposures at age 0 and 1, although endorsement to existing policies can lead to this or similar features in the data.

Appendix 8.1 Data for policies with only life benefits – Females

Life Only		Experience for Female Lives, Duration 2+					
Age Last	Lives Exposed	Actual Claims	Expected Claims	Claim Rate	HKA01	A/E Lives	
0	1,960	-	2	0.00	1.00	0%	
1	2,730	1	1	0.37	0.33	110%	
2	20,042	4	2	0.20	0.09	214%	
3	28,841	5	3	0.18	0.09	200%	
4	34,376	1	3	0.04	0.09	42%	
5	38,794	1	3	0.02	0.09	23%	
6	41,197	6	4	0.14	0.09	170%	
7	42,418	2	4	0.04	0.09	49%	
8	42,599	2	4	0.04	0.09	46%	
9	41,501	1	4	0.02	0.09	26%	
10	40,091	2	4	0.05	0.10	49%	
11	39,044	2	4	0.05	0.11	47%	
12	37,762	7	5	0.19	0.12	161%	
13	36,390	3	5	0.08	0.13	62%	
14	34,498	5	5	0.16	0.15	109%	
15	32,344	4	5	0.11	0.16	74%	
16	30,611	4	5	0.13	0.16	78%	
17	29,406	2	5	0.06	0.17	34%	
18	28,343	3	5	0.11	0.18	63%	
19	27,378	11	5	0.42	0.19	226%	
20	27,765	7	5	0.24	0.19	123%	
21	29,382	9	6	0.32	0.20	160%	
22	32,441	7	7	0.22	0.20	110%	
23	35,800	6	8	0.16	0.21	78%	
24	40,701	6	9	0.14	0.22	64%	
25	46,815	12	11	0.25	0.23	108%	
26	53,219	10	13	0.19	0.24	79%	
27	59,750	19	15	0.33	0.25	130%	
28	65,940	18	17	0.27	0.26	101%	
29	70,543	15	20	0.22	0.28	78%	
30	74,261	18	22	0.24	0.30	81%	
31	77,949	18	25	0.24	0.32	74%	
32	81,314	30	28	0.36	0.35	105%	
33	84,320	34	32	0.40	0.37	107%	
34	87,999	31	36	0.35	0.41	87%	
35	92,688	39	41	0.42	0.44	94%	
36	97,057	47	47	0.49	0.48	101%	
37	100,787	54	53	0.53	0.53	101%	
38	101,568	68	59	0.66	0.58	115%	
39	100,166	66	63	0.66	0.63	105%	
40	96,514	65	67	0.67	0.69	97%	
41	92,007	87	70	0.95	0.76	125%	
42	87,328	65	72	0.74	0.83	89%	
43	82,489	80	75	0.96	0.91	106%	
44	77,247	79	77	1.03	0.99	104%	
45	72,177	67	78	0.93	1.08	86%	
46	66,275	71	78	1.07	1.18	91%	
47	61,427	86	79	1.39	1.29	108%	
48	57,037	84	80	1.47	1.40	105%	
49	52,936	51	81	0.96	1.52	63%	

Life Only		Experience for Female Lives, Duration 2+					
Age Last	Lives Exposed	Actual Claims	Expected Claims	Claim Rate	HKA01	A/E Lives	
50	49,023	65	81	1.33	1.66	80%	
51	45,016	59	81	1.32	1.80	73%	
52	41,464	83	81	2.01	1.96	103%	
53	36,939	87	78	2.36	2.12	111%	
54	32,086	72	74	2.26	2.31	98%	
55	27,472	48	69	1.76	2.50	71%	
56	22,914	40	62	1.76	2.71	65%	
57	19,027	53	56	2.80	2.94	95%	
58	16,042	53	51	3.32	3.19	104%	
59	14,073	49	49	3.50	3.45	101%	
60	12,890	51	48	3.99	3.75	106%	
61	12,547	45	52	3.59	4.11	87%	
62	12,442	63	56	5.05	4.54	111%	
63	11,869	49	60	4.16	5.06	82%	
64	11,154	56	64	4.99	5.69	88%	
65	10,289	51	66	4.95	6.46	77%	
66	9,445	65	70	6.93	7.37	94%	
67	8,899	70	75	7.92	8.46	94%	
68	8,385	60	82	7.17	9.73	74%	
69	7,839	69	88	8.77	11.21	78%	
70	7,172	67	93	9.40	12.92	73%	
71	6,479	79	95	12.24	14.59	84%	
72	5,700	66	94	11.53	16.49	70%	
73	4,782	61	89	12.77	18.63	69%	
74	3,932	73	83	18.55	21.04	88%	
75	3,211	47	76	14.66	23.77	62%	
76	2,495	44	67	17.80	26.86	66%	
77	1,869	45	57	24.05	30.34	79%	
78	1,364	28	47	20.34	34.28	59%	
79	990	29	38	29.06	38.73	75%	
80	714	26	31	36.98	43.75	85%	
81	499	20	25	40.49	49.43	82%	
82	358	9	20	24.75	55.84	44%	
83	243	6	15	23.86	63.09	38%	
84	159	5	11	30.56	71.27	43%	
85	90	4	7	45.41	80.52	56%	
86	53	6	5	103.80	90.97	114%	
87	31	3	3	82.84	102.77	81%	
88	19	2	2	81.03	116.11	70%	
89	13	-	2	0.00	131.18	0%	
90	8	2	1	194.17	148.20	131%	
91	3	-	1	0.00	167.43	0%	
92	3	-	1	0.00	189.15	0%	
93	2	-	0	0.00	213.69	0%	
94	1	-	0	0.00	241.42	0%	
95	1	1	0	1000.00	272.75	367%	
96	-	-	-	0.00	308.14	0%	
97	-	-	-	0.00	348.12	0%	
98	-	-	-	0.00	393.29	0%	
99	-	-	-	0.00	444.32	0%	
100	-	-	-	0.00	501.97	0%	

Data notes:

- The above data is representative of policies offering only life benefits.
- Less than 2% of the life only data is contributed by the life component of policies offering life plus critical illness acceleration benefits policies.
- Data for ages 0 and 1 have been used as reported, with no re-allocation either from duration 0 to duration 2+ or vice versa.
- In theory there should be no duration 2+ exposures at age 0 and 1, although endorsement to existing policies can lead to this or similar features in the data.

Appendix 8.2 Data for policies with life and accelerated critical illness benefits – Males

Life+CI		Experience for Male Lives, Duration 2+				
Age Last	Lives Exposed	Life Claims	CI Claims	Life Rate	CI Rate	Claim Rate
0	-	-	-	0.00	0.00	0.00
1	475	-	-	0.00	0.00	0.00
2	3,356	1	1	0.30	0.25	0.55
3	3,950	-	-	0.00	0.00	0.00
4	4,195	-	2	0.00	0.40	0.40
5	4,241	1	2	0.24	0.39	0.63
6	4,068	-	2	0.00	0.49	0.49
7	3,683	-	-	0.00	0.00	0.00
8	3,381	-	-	0.00	0.00	0.00
9	3,079	1	-	0.32	0.00	0.32
10	2,917	-	-	0.00	0.00	0.00
11	2,788	1	-	0.36	0.00	0.36
12	2,674	-	1	0.00	0.37	0.37
13	2,603	-	-	0.00	0.00	0.00
14	2,604	-	-	0.00	0.00	0.00
15	2,556	-	-	0.00	0.00	0.00
16	2,658	-	-	0.00	0.00	0.00
17	2,804	-	-	0.00	0.00	0.00
18	3,073	-	2	0.00	0.63	0.63
19	3,664	5	-	1.30	0.00	1.30
20	5,271	2	-	0.38	0.00	0.38
21	7,413	3	1	0.38	0.13	0.51
22	9,891	4	2	0.38	0.20	0.57
23	12,463	3	2	0.24	0.15	0.39
24	16,047	3	5	0.19	0.30	0.48
25	19,915	8	5	0.40	0.24	0.64
26	23,635	14	9	0.59	0.37	0.96
27	27,268	12	11	0.44	0.41	0.85
28	30,394	17	12	0.55	0.38	0.93
29	32,452	8	14	0.24	0.42	0.67
30	33,622	11	20	0.34	0.59	0.93
31	34,642	14	19	0.40	0.54	0.94
32	35,455	13	21	0.36	0.60	0.96
33	36,166	11	21	0.32	0.57	0.89
34	37,155	16	31	0.42	0.84	1.26
35	38,436	14	28	0.37	0.72	1.09
36	39,635	12	29	0.30	0.73	1.02
37	40,616	14	36	0.35	0.88	1.23
38	40,511	21	32	0.53	0.78	1.31
39	39,247	24	51	0.62	1.30	1.91
40	37,351	26	43	0.69	1.16	1.85
41	34,782	22	44	0.64	1.26	1.91
42	32,136	26	54	0.81	1.69	2.50
43	29,126	20	49	0.70	1.69	2.39
44	26,020	26	51	1.00	1.95	2.95
45	22,927	18	46	0.78	2.01	2.79
46	20,005	23	44	1.15	2.22	3.37
47	17,432	24	45	1.37	2.58	3.95
48	15,226	24	37	1.59	2.40	3.98
49	13,389	22	34	1.63	2.53	4.16

Life+CI		Experience for Male Lives, Duration 2+				
Age Last	Lives Exposed	Life Claims	CI Claims	Life Rate	CI Rate	Claim Rate
50	11,835	28	47	2.36	3.98	6.33
51	10,525	20	25	1.91	2.38	4.29
52	9,173	14	39	1.55	4.25	5.80
53	7,481	8	25	1.07	3.35	4.42
54	5,882	11	27	1.92	4.58	6.51
55	4,519	14	27	3.01	5.98	9.00
56	3,480	15	24	4.21	7.00	11.21
57	2,619	8	13	2.90	5.15	8.05
58	1,951	4	17	2.02	8.49	10.51
59	1,314	6	12	4.54	8.85	13.38
60	934	7	8	7.42	8.57	15.99
61	726	3	8	4.13	10.92	15.05
62	574	4	3	6.97	5.02	11.99
63	406	5	7	12.16	16.90	29.07
64	293	1	4	3.41	12.95	16.36
65	164	1	1	5.86	6.09	11.95
66	106	-	3	0.00	28.35	28.35
67	68	5	4	72.96	58.82	131.79
68	41	1	1	24.41	24.41	48.82
69	24	-	-	0.00	0.00	0.00
70	11	-	-	0.00	0.00	0.00
71	6	-	-	0.00	0.00	0.00
72	2	-	-	0.00	0.00	0.00
73	-	-	-	0.00	0.00	0.00
74	-	1	-	0.00	0.00	0.00
75	-	-	-	0.00	0.00	0.00
76	-	-	-	0.00	0.00	0.00
77	-	-	-	0.00	0.00	0.00
78	-	-	-	0.00	0.00	0.00
79	-	-	-	0.00	0.00	0.00
80	-	-	-	0.00	0.00	0.00

Data notes:

- The above data is representative of policies offering life plus critical illness acceleration benefits.
- Less than 5% of the life component of policies offering life plus critical illness acceleration benefits policies is included in the life only data, and not in the above table.
- Data for ages 0 and 1 have been used as reported, with no re-allocation either from duration 0 to duration 2+ or vice versa.
- In theory there should be no duration 2+ exposures at age 0 and 1, although endorsement to existing policies can lead to this or similar features in the data.

Appendix 8.2 Data for policies with life and accelerated critical illness benefits – Females

Life+CI		Experience for Female Lives, Duration 2+					Experience for Female Lives, Duration 2+						
Age	Lives	Life	CI	Life	CI	Claim	Age	Lives	Life	CI	Life	CI	Claim
Last	Exposed	Claims	Claims	Rate	Rate	Rate	Last	Exposed	Claims	Claims	Rate	Rate	Rate
0	-	-	-	0.00	0.00	0.00	50	14,406	12	48	0.81	3.31	4.12
1	413	-	-	0.00	0.00	0.00	51	12,843	7	49	0.53	3.84	4.36
2	3,106	-	-	0.00	0.00	0.00	52	11,351	8	37	0.70	3.27	3.98
3	3,732	-	-	0.00	0.00	0.00	53	9,576	8	31	0.83	3.20	4.03
4	3,925	-	-	0.00	0.00	0.00	54	7,858	10	20	1.26	2.59	3.86
5	3,920	-	-	0.00	0.00	0.00	55	6,288	6	18	0.92	2.90	3.82
6	3,761	-	-	0.00	0.00	0.00	56	4,819	3	12	0.52	2.51	3.03
7	3,373	-	1	0.00	0.30	0.30	57	3,589	2	7	0.42	1.90	2.32
8	2,991	-	-	0.00	0.00	0.00	58	2,575	3	12	1.14	4.53	5.67
9	2,660	-	-	0.00	0.00	0.00	59	1,811	1	8	0.55	4.29	4.85
10	2,495	-	-	0.00	0.00	0.00	60	1,300	2	6	1.51	4.57	6.07
11	2,397	-	-	0.00	0.00	0.00	61	958	2	4	2.03	4.06	6.09
12	2,322	-	-	0.00	0.00	0.00	62	780	4	4	5.03	5.05	10.08
13	2,357	-	-	0.00	0.00	0.00	63	566	1	3	1.77	5.30	7.06
14	2,285	-	-	0.00	0.00	0.00	64	377	1	3	2.65	7.95	10.60
15	2,300	1	-	0.43	0.00	0.43	65	198	-	1	0.00	5.06	5.06
16	2,418	-	1	0.00	0.41	0.41	66	120	1	1	7.99	8.31	16.30
17	2,539	-	-	0.00	0.00	0.00	67	80	-	1	0.00	12.44	12.44
18	2,879	-	-	0.00	0.00	0.00	68	46	2	-	43.69	0.00	43.69
19	3,379	-	2	0.00	0.59	0.59	69	26	1	-	38.88	0.00	38.88
20	5,247	-	2	0.00	0.35	0.35	70	13	1	1	71.67	74.53	146.20
21	8,271	1	2	0.12	0.23	0.36	71	7	-	-	0.00	0.00	0.00
22	12,171	2	3	0.16	0.24	0.40	72	5	-	-	0.00	0.00	0.00
23	16,758	4	4	0.21	0.23	0.44	73	4	-	-	0.00	0.00	0.00
24	22,287	3	8	0.15	0.34	0.49	74	4	-	-	0.00	0.00	0.00
25	28,550	4	10	0.14	0.35	0.49	75	2	-	-	0.00	0.00	0.00
26	34,653	6	16	0.17	0.46	0.63	76	1	-	-	0.00	0.00	0.00
27	40,004	4	14	0.10	0.35	0.44	77	-	-	-	0.00	0.00	0.00
28	44,225	7	17	0.15	0.39	0.54	78	-	-	-	0.00	0.00	0.00
29	46,702	5	20	0.11	0.44	0.55	79	-	-	-	0.00	0.00	0.00
30	47,801	8	31	0.17	0.66	0.82	80	-	-	-	0.00	0.00	0.00
31	48,045	7	31	0.14	0.64	0.78							
32	47,988	9	43	0.20	0.89	1.09							
33	47,458	6	39	0.12	0.82	0.94							
34	47,380	10	36	0.21	0.76	0.97							
35	47,100	7	58	0.14	1.24	1.37							
36	47,105	7	52	0.14	1.11	1.25							
37	46,516	10	68	0.22	1.47	1.69							
38	44,791	9	80	0.20	1.78	1.98							
39	42,199	12	75	0.29	1.78	2.07							
40	39,112	11	73	0.28	1.86	2.14							
41	35,937	11	69	0.29	1.93	2.22							
42	32,887	12	72	0.36	2.20	2.56							
43	30,083	14	66	0.48	2.18	2.66							
44	27,546	15	62	0.53	2.26	2.79							
45	24,982	8	79	0.34	3.15	3.49							
46	22,302	9	64	0.42	2.86	3.29							
47	20,127	8	73	0.40	3.61	4.00							
48	18,006	15	66	0.81	3.66	4.47							
49	16,191	12	43	0.71	2.63	3.34							

Data notes:

- The above data is representative of policies offering life plus critical illness acceleration benefits.
- Less than 5% of the life component of policies offering life plus critical illness acceleration benefits policies is included in the life only data, and not in the above table.
- Data for ages 0 and 1 have been used as reported, with no re-allocation either from duration 0 to duration 2+ or vice versa.
- In theory there should be no duration 2+ exposures at age 0 and 1, although endorsement to existing policies can lead to this or similar features in the data.

Appendix 8.3 Data for all life benefits – Males

All Life		Experience for Male Lives, Duration 2+					All Life		Experience for Male Lives, Duration 2+				
Age Last	Lives Exposed	Actual Claims	Expected Claims	Claim Rate	HKA01	A/E Lives	Age Last	Lives Exposed	Actual Claims	Expected Claims	Claim Rate	HKA01	A/E Lives
0	2,155	2	2	0.93	1.00	93%	50	87,928	225	246	2.55	2.80	91%
1	3,543	-	1	0.00	0.26	0%	51	80,994	223	250	2.75	3.09	89%
2	26,001	5	4	0.18	0.16	109%	52	72,949	222	249	3.05	3.42	89%
3	36,890	1	5	0.03	0.15	17%	53	63,215	191	239	3.02	3.78	80%
4	43,682	-	6	0.00	0.13	0%	54	52,757	160	221	3.04	4.19	72%
5	49,143	5	6	0.09	0.12	79%	55	42,805	187	199	4.37	4.66	94%
6	52,151	2	6	0.03	0.11	31%	56	34,390	153	178	4.45	5.17	86%
7	53,464	8	5	0.14	0.10	141%	57	27,985	124	161	4.44	5.75	77%
8	53,385	3	5	0.05	0.10	53%	58	23,392	118	149	5.03	6.38	79%
9	51,856	2	5	0.04	0.10	39%	59	20,160	137	143	6.80	7.09	96%
10	50,396	6	5	0.12	0.10	112%	60	17,724	139	139	7.85	7.86	100%
11	49,262	9	6	0.18	0.11	155%	61	16,347	128	142	7.84	8.71	90%
12	47,554	8	6	0.16	0.13	125%	62	15,312	109	148	7.10	9.64	74%
13	46,193	8	7	0.17	0.15	110%	63	13,871	127	148	9.12	10.65	86%
14	44,422	4	8	0.09	0.18	49%	64	12,253	108	144	8.78	11.75	75%
15	42,041	4	9	0.09	0.22	40%	65	10,615	129	137	12.12	12.95	94%
16	40,552	8	11	0.20	0.27	75%	66	9,246	106	132	11.46	14.24	80%
17	39,438	4	13	0.10	0.33	29%	67	8,212	131	129	15.90	15.67	101%
18	38,407	10	15	0.25	0.40	63%	68	7,213	121	125	16.75	17.34	97%
19	38,341	14	18	0.35	0.48	74%	69	6,358	119	123	18.76	19.34	97%
20	40,229	16	21	0.40	0.53	76%	70	5,587	114	122	20.44	21.75	94%
21	43,329	17	24	0.39	0.55	71%	71	4,885	99	119	20.31	24.40	83%
22	47,353	23	26	0.49	0.54	90%	72	4,185	116	115	27.84	27.38	102%
23	52,087	15	27	0.30	0.52	57%	73	3,432	88	105	25.72	30.71	84%
24	58,723	18	29	0.31	0.49	62%	74	2,735	83	94	30.34	34.46	88%
25	66,488	32	32	0.48	0.48	100%	75	2,169	70	84	32.49	38.66	84%
26	74,196	53	34	0.71	0.46	153%	76	1,690	57	73	33.62	43.37	78%
27	82,402	32	38	0.39	0.46	84%	77	1,262	49	61	39.07	48.65	80%
28	90,024	52	42	0.58	0.46	125%	78	894	30	49	33.69	54.58	62%
29	95,725	34	45	0.36	0.47	76%	79	606	26	37	43.34	61.23	71%
30	100,607	40	49	0.40	0.49	81%	80	415	23	29	54.21	68.70	79%
31	105,554	59	54	0.56	0.52	109%	81	305	17	23	56.50	77.07	73%
32	111,301	54	61	0.48	0.55	88%	82	238	14	21	57.96	86.46	67%
33	117,873	67	69	0.57	0.59	96%	83	177	12	17	66.55	97.00	69%
34	125,515	64	80	0.51	0.64	79%	84	121	11	13	93.94	108.82	86%
35	134,551	81	94	0.61	0.70	87%	85	80	6	10	69.58	122.09	57%
36	144,995	79	111	0.54	0.76	71%	86	52	3	7	58.43	136.96	43%
37	155,311	78	130	0.50	0.84	60%	87	33	-	5	0.00	153.66	0%
38	162,480	117	150	0.72	0.92	78%	88	26	3	4	97.49	172.38	57%
39	165,616	124	168	0.75	1.02	74%	89	22	1	4	46.02	193.39	24%
40	165,127	153	185	0.93	1.12	83%	90	20	8	4	392.16	216.96	181%
41	161,610	175	199	1.08	1.23	88%	91	14	3	3	225.99	243.40	93%
42	157,578	200	213	1.27	1.35	94%	92	11	-	3	0.00	273.07	0%
43	150,719	200	224	1.32	1.48	89%	93	9	-	3	0.00	306.35	0%
44	142,496	172	232	1.21	1.63	74%	94	8	-	3	0.00	343.68	0%
45	132,645	212	236	1.60	1.78	90%	95	7	-	3	0.00	385.57	0%
46	121,093	206	235	1.70	1.94	88%	96	2	-	1	0.00	432.56	0%
47	110,808	195	235	1.76	2.12	83%	97	0	1	0	2000.00	485.28	412%
48	101,976	186	237	1.82	2.32	79%	98	-	-	-	0.00	544.42	0%
49	94,585	219	241	2.32	2.55	91%	99	-	-	-	0.00	610.77	0%
							100	-	-	-	0.00	685.20	0%

Data notes:

- The above data is representative of the life component of all policies offering life benefits.
- Data for ages 0 and 1 have been used as reported, with no re-allocation either from duration 0 to duration 2+ or vice versa.
- In theory there should be no duration 2+ exposures at age 0 and 1, although endorsement to existing policies can lead to this or similar features in the data.

Appendix 8.3 Data for all life benefits – Females

All Life	Experience for Female Lives, Duration 2+						All Life	Experience for Female Lives, Duration 2+					
Age Last	Lives Exposed	Actual Claims	Expected Claims	Claim Rate	HKA01	A/E Lives	Age Last	Lives Exposed	Actual Claims	Expected Claims	Claim Rate	HKA01	A/E Lives
0	1,960	-	2	0.00	1.00	0%	50	63,429	77	105	1.21	1.66	73%
1	3,143	1	1	0.32	0.33	95%	51	57,859	66	104	1.14	1.80	64%
2	23,148	4	2	0.17	0.09	185%	52	52,816	91	103	1.73	1.96	88%
3	32,572	5	3	0.16	0.09	177%	53	46,515	95	99	2.04	2.12	96%
4	38,301	1	3	0.03	0.09	38%	54	39,943	82	92	2.06	2.31	89%
5	42,714	1	4	0.02	0.09	21%	55	33,760	54	84	1.61	2.50	64%
6	44,959	6	4	0.13	0.09	155%	56	27,733	43	75	1.54	2.71	57%
7	45,791	2	4	0.04	0.09	45%	57	22,616	55	67	2.42	2.94	82%
8	45,590	2	4	0.04	0.09	43%	58	18,617	56	59	3.02	3.19	95%
9	44,160	1	4	0.02	0.09	25%	59	15,884	50	55	3.17	3.45	92%
10	42,586	2	4	0.05	0.10	46%	60	14,191	53	53	3.76	3.75	100%
11	41,440	2	4	0.05	0.11	45%	61	13,505	47	55	3.48	4.11	85%
12	40,084	7	5	0.18	0.12	152%	62	13,222	67	60	5.04	4.54	111%
13	38,746	3	5	0.08	0.13	58%	63	12,435	50	63	4.05	5.06	80%
14	36,783	5	5	0.15	0.15	102%	64	11,531	57	66	4.91	5.69	86%
15	34,644	5	5	0.14	0.16	87%	65	10,487	51	68	4.86	6.46	75%
16	33,030	4	5	0.12	0.16	73%	66	9,566	66	71	6.95	7.37	94%
17	31,944	2	5	0.05	0.17	31%	67	8,979	70	76	7.85	8.46	93%
18	31,222	3	6	0.10	0.18	58%	68	8,431	62	82	7.37	9.73	76%
19	30,757	11	6	0.37	0.19	201%	69	7,864	70	88	8.87	11.21	79%
20	33,012	7	6	0.20	0.19	104%	70	7,185	68	93	9.52	12.92	74%
21	37,652	10	7	0.27	0.20	138%	71	6,487	79	95	12.23	14.59	84%
22	44,612	9	9	0.21	0.20	101%	72	5,705	66	94	11.52	16.49	70%
23	52,559	9	11	0.18	0.21	84%	73	4,786	61	89	12.76	18.63	68%
24	62,988	9	14	0.14	0.22	66%	74	3,935	73	83	18.53	21.04	88%
25	75,364	16	17	0.21	0.23	91%	75	3,213	47	76	14.65	23.77	62%
26	87,872	16	21	0.18	0.24	76%	76	2,496	44	67	17.80	26.86	66%
27	99,753	23	25	0.23	0.25	94%	77	1,869	45	57	24.05	30.34	79%
28	110,164	24	29	0.22	0.26	84%	78	1,364	28	47	20.34	34.28	59%
29	117,244	20	33	0.17	0.28	62%	79	990	29	38	29.06	38.73	75%
30	122,061	26	37	0.21	0.30	71%	80	714	26	31	36.98	43.75	85%
31	125,993	25	40	0.20	0.32	63%	81	499	20	25	40.49	49.43	82%
32	129,302	39	45	0.30	0.35	87%	82	358	9	20	24.75	55.84	44%
33	131,778	40	49	0.30	0.37	80%	83	243	6	15	23.86	63.09	38%
34	135,379	41	55	0.30	0.41	74%	84	159	6	11	36.62	71.27	51%
35	139,788	45	62	0.32	0.44	73%	85	90	4	7	45.41	80.52	56%
36	144,162	54	70	0.38	0.48	78%	86	53	6	5	103.80	90.97	114%
37	147,303	64	78	0.43	0.53	82%	87	31	3	3	82.84	102.77	81%
38	146,359	77	84	0.52	0.58	91%	88	19	2	2	81.03	116.11	70%
39	142,365	79	90	0.55	0.63	87%	89	13	-	2	0.00	131.18	0%
40	135,626	76	94	0.56	0.69	81%	90	8	2	1	194.17	148.20	131%
41	127,944	98	97	0.76	0.76	101%	91	3	-	1	0.00	167.43	0%
42	120,215	76	100	0.64	0.83	77%	92	3	-	1	0.00	189.15	0%
43	112,572	94	102	0.83	0.91	92%	93	2	-	0	0.00	213.69	0%
44	104,793	94	104	0.90	0.99	90%	94	1	-	0	0.00	241.42	0%
45	97,158	76	105	0.78	1.08	72%	95	1	1	0	1000.00	272.75	367%
46	88,577	81	105	0.91	1.18	77%	96	-	-	-	0.00	308.14	0%
47	81,554	94	105	1.15	1.29	89%	97	-	-	-	0.00	348.12	0%
48	75,043	98	105	1.31	1.40	94%	98	-	-	-	0.00	393.29	0%
49	69,128	62	105	0.90	1.52	59%	99	-	-	-	0.00	444.32	0%
							100	-	-	-	0.00	501.97	0%

Data notes:

- The above data is representative of the life component of all policies offering life benefits.
- Data for ages 0 and 1 have been used as reported, with no re-allocation either from duration 0 to duration 2+ or vice versa.
- In theory there should be no duration 2+ exposures at age 0 and 1, although endorsement to existing policies can lead to this or similar features in the data.

Appendix 8.4 Data for all critical illness benefits - Males

All CI	Experience for Male Lives, Duration 2+						All CI	Experience for Male Lives, Duration 2+					
Age Last	Lives Exposed	Life Claims	CI Claims	Life Rate	CI Rate	Claim Rate	Age Last	Lives Exposed	Life Claims	CI Claims	Life Rate	CI Rate	Claim Rate
0	-	-	-	0.00	0.00	0.00	50	14,276	-	55	0.00	3.85	3.85
1	483	-	-	0.00	0.00	0.00	51	12,662	-	42	0.00	3.31	3.31
2	5,558	-	2	0.00	0.33	0.33	52	10,984	-	47	0.00	4.26	4.26
3	6,762	-	-	0.00	0.00	0.00	53	8,987	-	33	0.00	3.66	3.66
4	7,202	-	2	0.00	0.23	0.23	54	7,117	-	31	0.00	4.35	4.35
5	7,311	-	2	0.00	0.23	0.23	55	5,454	-	35	0.00	6.41	6.41
6	7,057	-	2	0.00	0.28	0.28	56	4,167	-	25	0.00	6.08	6.08
7	6,434	-	-	0.00	0.00	0.00	57	3,108	-	18	0.00	5.92	5.92
8	5,852	-	-	0.00	0.00	0.00	58	2,304	-	18	0.00	7.62	7.62
9	5,268	-	-	0.00	0.00	0.00	59	1,580	-	13	0.00	7.98	7.98
10	4,920	-	-	0.00	0.00	0.00	60	1,158	-	9	0.00	7.77	7.77
11	4,638	-	-	0.00	0.00	0.00	61	912	-	9	0.00	9.76	9.76
12	4,402	-	1	0.00	0.23	0.23	62	717	-	4	0.00	5.39	5.39
13	4,268	-	-	0.00	0.00	0.00	63	495	-	7	0.00	13.86	13.86
14	4,194	-	-	0.00	0.00	0.00	64	340	-	4	0.00	11.16	11.16
15	4,052	-	-	0.00	0.00	0.00	65	184	-	1	0.00	5.43	5.43
16	4,117	-	-	0.00	0.00	0.00	66	115	-	3	0.00	26.17	26.17
17	4,244	-	-	0.00	0.00	0.00	67	71	-	4	0.00	56.00	56.00
18	4,320	-	2	0.00	0.45	0.45	68	42	-	1	0.00	23.84	23.84
19	4,917	-	-	0.00	0.00	0.00	69	24	-	-	0.00	0.00	0.00
20	6,591	-	-	0.00	0.00	0.00	70	11	-	-	0.00	0.00	0.00
21	8,964	-	1	0.00	0.10	0.10	71	6	-	-	0.00	0.00	0.00
22	11,764	-	3	0.00	0.25	0.25	72	2	-	-	0.00	0.00	0.00
23	14,766	-	3	0.00	0.19	0.19	73	-	-	-	0.00	0.00	0.00
24	18,944	-	12	0.00	0.62	0.62	74	-	-	-	0.00	0.00	0.00
25	23,393	-	6	0.00	0.25	0.25	75	-	-	-	0.00	0.00	0.00
26	27,778	-	10	0.00	0.35	0.35	76	-	-	-	0.00	0.00	0.00
27	32,094	-	13	0.00	0.41	0.41	77	-	-	-	0.00	0.00	0.00
28	35,783	-	15	0.00	0.41	0.41	78	-	-	-	0.00	0.00	0.00
29	38,135	-	17	0.00	0.44	0.44	79	-	-	-	0.00	0.00	0.00
30	39,632	-	25	0.00	0.63	0.63	80	-	-	-	0.00	0.00	0.00
31	41,047	-	20	0.00	0.48	0.48							
32	42,146	-	29	0.00	0.69	0.69							
33	43,050	-	26	0.00	0.60	0.60							
34	44,334	-	41	0.00	0.92	0.92							
35	45,940	-	34	0.00	0.73	0.73							
36	47,508	-	36	0.00	0.75	0.75							
37	48,731	-	40	0.00	0.81	0.81							
38	48,720	-	42	0.00	0.85	0.85							
39	47,372	-	62	0.00	1.30	1.30							
40	45,207	-	50	0.00	1.11	1.11							
41	42,131	-	56	0.00	1.33	1.33							
42	38,999	-	63	0.00	1.62	1.62							
43	35,446	-	61	0.00	1.72	1.72							
44	31,753	-	70	0.00	2.19	2.19							
45	28,008	-	60	0.00	2.14	2.14							
46	24,275	-	52	0.00	2.15	2.15							
47	21,123	-	52	0.00	2.46	2.46							
48	18,402	-	46	0.00	2.52	2.52							
49	16,224	-	44	0.00	2.70	2.70							

Data notes:

- The above data is representative of the critical illness component of all policies offering critical illness benefits.
- Data for ages 0 and 1 have been used as reported, with no re-allocation either from duration 0 to duration 2+ or vice versa.
- In theory there should be no duration 2+ exposures at age 0 and 1, although endorsement to existing policies can lead to this or similar features in the data.

Appendix 8.4 Data for all critical illness benefits - Females

All CI	Experience for Female Lives, Duration 2+						All CI	Experience for Female Lives, Duration 2+					
Age Last	Lives Exposed	Life Claims	CI Claims	Life Rate	CI Rate	Claim Rate	Age Last	Lives Exposed	Life Claims	CI Claims	Life Rate	CI Rate	Claim Rate
0	-	-	-	0.00	0.00	0.00	50	17,297	-	60	0.00	3.44	3.44
1	421	-	-	0.00	0.00	0.00	51	15,357	-	62	0.00	4.04	4.04
2	5,109	-	1	0.00	0.19	0.19	52	13,604	-	46	0.00	3.39	3.39
3	6,238	-	-	0.00	0.00	0.00	53	11,481	-	36	0.00	3.10	3.10
4	6,490	-	1	0.00	0.15	0.15	54	9,417	-	29	0.00	3.11	3.11
5	6,506	-	2	0.00	0.30	0.30	55	7,559	-	24	0.00	3.19	3.19
6	6,239	-	-	0.00	0.00	0.00	56	5,756	-	20	0.00	3.47	3.47
7	5,669	-	2	0.00	0.35	0.35	57	4,225	-	12	0.00	2.77	2.77
8	5,111	-	-	0.00	0.00	0.00	58	3,028	-	15	0.00	4.83	4.83
9	4,570	-	-	0.00	0.00	0.00	59	2,149	-	11	0.00	5.00	5.00
10	4,209	-	-	0.00	0.00	0.00	60	1,570	-	9	0.00	5.65	5.65
11	3,995	-	-	0.00	0.00	0.00	61	1,178	-	5	0.00	4.13	4.13
12	3,818	-	-	0.00	0.00	0.00	62	948	-	6	0.00	6.22	6.22
13	3,767	-	-	0.00	0.00	0.00	63	673	-	3	0.00	4.46	4.46
14	3,646	-	1	0.00	0.27	0.27	64	439	-	3	0.00	6.84	6.84
15	3,576	-	-	0.00	0.00	0.00	65	230	-	1	0.00	4.36	4.36
16	3,592	-	2	0.00	0.55	0.55	66	137	-	1	0.00	7.30	7.30
17	3,626	-	-	0.00	0.00	0.00	67	88	-	2	0.00	22.58	22.58
18	3,846	-	-	0.00	0.00	0.00	68	49	-	-	0.00	0.00	0.00
19	4,388	-	2	0.00	0.46	0.46	69	27	-	-	0.00	0.00	0.00
20	6,462	-	2	0.00	0.28	0.28	70	13	-	1	0.00	74.53	74.53
21	9,930	-	2	0.00	0.20	0.20	71	7	-	-	0.00	0.00	0.00
22	14,510	-	4	0.00	0.27	0.27	72	5	-	-	0.00	0.00	0.00
23	19,833	-	4	0.00	0.20	0.20	73	4	-	-	0.00	0.00	0.00
24	26,302	-	8	0.00	0.29	0.29	74	4	-	-	0.00	0.00	0.00
25	33,681	-	11	0.00	0.33	0.33	75	2	-	-	0.00	0.00	0.00
26	40,908	-	21	0.00	0.51	0.51	76	1	-	-	0.00	0.00	0.00
27	47,420	-	22	0.00	0.46	0.46	77	-	-	-	0.00	0.00	0.00
28	52,468	-	25	0.00	0.48	0.48	78	-	-	-	0.00	0.00	0.00
29	55,435	-	26	0.00	0.48	0.48	79	-	-	-	0.00	0.00	0.00
30	56,903	-	39	0.00	0.69	0.69	80	-	-	-	0.00	0.00	0.00
31	57,456	-	37	0.00	0.64	0.64							
32	57,509	-	54	0.00	0.94	0.94							
33	57,062	-	51	0.00	0.89	0.89							
34	57,038	-	57	0.00	1.00	1.00							
35	56,911	-	69	0.00	1.21	1.21							
36	57,036	-	65	0.00	1.14	1.14							
37	56,530	-	84	0.00	1.49	1.49							
38	54,653	-	101	0.00	1.85	1.85							
39	51,670	-	104	0.00	2.01	2.01							
40	47,967	-	86	0.00	1.80	1.80							
41	44,053	-	94	0.00	2.13	2.13							
42	40,283	-	96	0.00	2.38	2.38							
43	36,694	-	80	0.00	2.19	2.19							
44	33,471	-	85	0.00	2.54	2.54							
45	30,171	-	93	0.00	3.10	3.10							
46	26,858	-	83	0.00	3.07	3.07							
47	24,185	-	98	0.00	4.06	4.06							
48	21,618	-	76	0.00	3.50	3.50							
49	19,466	-	56	0.00	2.89	2.89							

Data notes:

- The above data is representative of the critical illness component of all policies offering critical illness benefits.
- Data for ages 0 and 1 have been used as reported, with no re-allocation either from duration 0 to duration 2+ or vice versa.
- In theory there should be no duration 2+ exposures at age 0 and 1, although endorsement to existing policies can lead to this or similar features in the data.

Appendix 8.5 Participating Companies

The following companies participated by providing their data for this study. Participating companies have been provided with two datasets for their own further information and analysis, one containing their own data and one containing the consolidated data.

- American International Assurance Co Ltd
- BOC Group Life Assurance Co Ltd
- Blue Cross (Asia-Pacific) Insurance Ltd
- China Life Insurance (Overseas) Co Ltd
- CMG Asia Ltd
- Dah Sing Life Assurance Co Ltd
- Hang Seng Life Ltd
- Hong Kong Life Insurance Limited
- HSBC Life (International) Ltd
- ING Life Insurance Co (Bermuda) Ltd
- Manulife (International) Ltd
- MassMutual Asia Ltd
- MLC (Hong Kong) Limited
- New York Life Insurance Worldwide Ltd
- Pacific Century Insurance Holdings Ltd
- Prudential Assurance Co Ltd
- Standard Life (Asia) Ltd
- Winterthur Life Insurance Company
- Zurich Life Insurance Company Limited