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Actuarial Society of Hong Kong

NEWSLETTER

- 4 JUL 1995

9th Floor, First Pacific Bank Centre, 56 Gloucester Road, Wanchai, Hong Kong
Telephone : 2520-2619 Facsimile : 2527-5470

New Members

The following new members joined the Society in May:

Name	Company	Membership Status
Poon Fun Chi, Simon	AIA	Fellow
Wong Tse Yau, William	William M. Mercer	Fellow
Lee, Kevin	Eagle Star	Fellow
Yong Wing Lit	HK University of Science & Technology	Associate
Chow Hei Yin, Derek	AIA	Associate
Chan Sau Shing, Samson	William M. Mercer	Associate
Ip Wai Hing, Ellen	William M. Mercer	Associate
Fung, Sandra	Watson Wyatt	Student

Member's Handbook

Its arrived! You should all now have received your handbook. If you have not pleased contact Betty Kwong at the above address.

Liaison with Government

The Government has completed its consultation process with the ASHK regarding the regulations for valuing life companies and determination of solvency margins. The Government will be releasing its regulations later this year.

Meetings

Mr. Chuck Rohm spoke to us on 8 June on the education of actuaries. He emphasised the need for not only academic qualifications but also communication skills, diligence and integrity.

The Society will hold another evening seminar presented by SwissRe on the subject of Financial Reinsurance, on 29 July. More details of this seminar will be released in a separate circular with a synopsis of the talk to enable to free discussion after the presentation.

Call for Papers

A number of Members are preparing papers for presentation to the Society. So far four groups are known to be doing research. The deadline for submission is 30 September. Remember, there is a HK$5,000 for the best paper and it is not too late to start work.

Mortality Investigation Committee

Enclosed with this month's Newsletter is a report from the MIC.

The report covers the development of mortality statistics since the ASHK published the HKA93 tables. A comparison between the published tables and actual experience is shown for two periods 1987-91 and 1988-92. Also for the first time the MIC have produced an analysis by cause of death. Development of this study will continue in the coming years.

Comments on the report should be directed initially to Richard Ip on 2523-7339.

Survey of Students

The Education Committee is circulating a questionnaire on the needs of ASHK students. The questionnaire should be completed and returned to Steve Hui. Any questions should also be directed to Steve on 2519-1110.

East Asian Actuarial Conference

The 8th East Asian Actuarial Conference in Tokyo will be held between 2 and 5 October. The theme will be "Actuaries in Coming Asian Era". A circular on this has been sent to all companies with ASHK members. Please see your point of contact (see overleaf) if you are interested.

Meanwhile, papers have been invited to be presented at the conference. If anyone plans to present, please contact Danny Quant on 2827-8833 so that the EAAC can be advised in advance of how many papers will be submitted from Hong Kong.

Points of Contact

In the event that bulky material or urgent circulars need to be faxed , the ASHK has nominated an individual at each company which employs Members of the ASHK. The list of points of contact are shown overleaf.

If you are not getting material from the ASHK or need other information either contact your representative above or contact Betty Kwong directly on 2520-2619.

AEtna International, Inc	***Douglas C. Henck***
AEtna Life Insurance Co of America	***Patrick Poon Sun Cheong***
American Int'l Assurance Co (Bermuda) Ltd	
American Int'l Assurance Co Ltd	***Dominic Lee Tat On***
Australian Mutual Provident Society	***Will Bowsley***
AXA Life Insurance Company Ltd	***Sylvania Li***
Bank of China Group Insurance Co Ltd	***Cheung Wah Kit***
Buck Consultants	
BZW Investment Management (HK) Ltd	***Alan Liu Chi Lun***
Canadian Eastern Life Assurance Ltd	***Cheng Tak Chi***
China Life Insurance Co Ltd	***Danny Leung Kin Wah***
Cigna Worldwide Insurance Company	***Dawn Tang Marian***
CMI Financial Management Services	***Mark Saunders***
Coopers & Lybrand	***Max Chen***
Dah Sing Life Assurance Co Ltd	***Roddy Anderson***
Eagle Star Life Assurance Co Ltd	***Benny Ng Man Bun***
East Asia AEtna Insurance Group	***Augustus Yuen Moon Hing***
Fame Ltd	***Andrew Alexander***
Guardian Assurance Ltd	***Michael Ayre D***
Han Shun Insurance Broker & Agency	
HongkongBank International Trustee Ltd	***Leung Wing Kwong***
Hong Kong Government, Census & Statistics	***Andrew Kwan Kai Ming***
Hong Kong SAR Government Land Fund	***Vincent Kok Lok Sang***
HSBC Asset Management (HK) Ltd	***June Wong Wai Main***
HSBC Life Group	***Estella S.F. Chiu***
Insuright Employee Benefits Ltd	
Integrity Life Insurance Co (Taiwan)	***Alex Cheung Kim Fung***
Jardine CMG Life Assurance Ltd	***Yam Chi Fai***
Jardine Insurance Brokers Ltd	***Howard Walker***
Jardine Hancock Int'l Services Pte Ltd	***Sing Hong Au***
Johnson & Higgins Consulting	***Roger Stephen Barnett***
Lippo Protective Life Insurance Co Ltd	***Kenneth Yu Yuk Wing***
ManuLife Financial	***Nicholas Crouch***
Nan Shan Life Insurance Co Ltd	***Ringo Choi Lung Chin***
National Mutual Insurance Co Ltd	***Michael Redmond Ross***
New York Life Insurance Worldwide Ltd	
NMG Risk Managers & Actuaries (HK) Ltd	***Russel Dean Lok***
Office of the Registrar of ORSO	***Herbert Chan Tak Wah***
Office of the Commissioner of Insurance Authority	***Raymond W. Tam***
Old Mutual Hong Kong	***Michael Rudge***
P.T. Wyatt Purbajaga	***Jon Robinson***
P.T. Asuransi Jiwa Sewu New York Life	***Keith Swailes***
Principal International Asia Ltd	***Robert T.P. Fok***
Prudential Assurance Co Ltd	***Richard Ip Hong Man***
Reinsurance Group of America, Incorp	***Ronald Wan Wing Lim***
Republic Vanguard Life - Taiwan Bra	***Joe Y.L. Chan***
Royal Life Insurance Int'd Ltd	***Gary Boal***
Sun Alliance Insurance Group	***Graham Stimpson***
Swiss Reinsurance (HK) Ltd	
SwissRe Advisers Ltd	***Garth Brian Jones***
Terry Jenkins & Co Ltd	***Terry D. Jenkins***
The Prudential Corp Asia Ltd	***Joseph Ip Chung Sang***
Tillinghast	***John Charles Vieren***
Top Glory Insurance Co (Bermuda) Ltd	***Trevor Charles Raper***
TPF&C	***Greg Cooper***
Trowbrideg Consulting Pty Ltd	***Gregory Moran***
Univeristy of Hong Kong	***Yuen Kam Chuen***
William M Mercer Ltd	***Mark Baxter***
William M Mercer Taiwan Ltd	***Terence Lin Chun Hung***
Willis Faber Consulting (Far East)	***David John Fenna***
Winterthur Life	***Lawrence Lai Chi Kwong***
The Wyatt Company (HK) Ltd	***August Chow***

Note : Views expressed herein are not necessarily those of the ASHK, Council or its Committees.

THE MORTALITY OF HONG KONG ASSURED LIVES EXPERIENCE FOR 1988 - 1992

In 1993, the Actuarial Society of Hong Kong embarked on a study of Hong Kong's assured lives mortality. As a result, the Hong Kong Assured Lives Mortality Table 1993 (HKA93) was produced. Last year, we continued to monitor the mortality experience for 1988 - 1992.

In this report, the standard table used for the calculation of the expected deaths and the ratios 100A/E is HKA93. The changes of the mortality experience during the two study periods viz., 1987 - 1991 and 1988 - 1992 are observed. If we continue to monitor these changes in future years, we would be able to identify the trend of Hong Kong assured lives mortality experience.

Furthermore, a study on the causes of death was carried out. From this study, the 3 leading causes of death viz., "Neoplasms", Accidents, Poisonings and Violence" and "Disease of the Circulatory System" are revealed.

(I) Data

The data were collected from fourteen participating companies relating to exposure and deaths in the years 1988 through to 1992. The specifications of the data are given as follows:

- the data related only to permanent assurances;
- the data were based on numbers of policies (rather than amount of insurance);
- the data were split by sex;
- the data included smokers and non-smokers combined;
- the data included medical and non-medical business combined;
- the policies included were only single life policies issued in Hong Kong;
- the data were split into durations 0, 1, 2+ years;
- the data included the standard cases only;
- the age definition was age last birthday;
- the data included multiple policies of the same life.

(II) Results

The ratios of actual deaths for 1988 - 92 , 1987 - 91 experience are given in Table 1.1 and 1.2 for male and female respectively. The following highlight the result :

- Basically, the death ratios in 1988 - 92 and 1987 - 91 are consistent for durations 0, 1 and 2+. For the duration 1, the death ratios of male and female in 1988 - 92 experience are 10% less than that in 1987 - 91 experience.

- In the previous study, the selection effect for male, duration 1 is not significant. In this study, the selection effect is about 10% of the ultimate experience.

- For the male experience, the death ratio (for all ages) of duration 2+ for 1988 - 92 experience is 4% higher than that for 1987 - 91 experience. Since the volume of data is comparatively small, it is too early to conclude that the ultimate mortality is worse than that in the previous study period.

- For the female experience, the death ratios are slightly better than that in previous period.

- The selection effect appears to be significant. For the duration 0, the death ratios for male and female are 54.7% and 34.6% respectively. For the duration 1, the selection effects diminish to 91.2% and 52.8% respectively.

(III) Causes of Death

A study of various causes of death was carried out. Causes of death are grouped into 9 categories as shown below.

Causes of Death	Actual Death			% of Deaths		
	M	F	Total	M	F	Total
1. Neoplasms (Malignancies)	649	262	911	38.2	47.0	40.4
2. Accidents, Poisonings and Violence	350	63	413	20.6	11.3	18.3
3. Diseases of the Circulatory System	228	77	305	13.4	13.8	13.5
4. Diseases of the Respiratory System	92	32	124	5.4	5.7	5.5
5. Suicide	81	48	129	4.8	8.6	5.7
6. Diseases of the Digestive System	85	10	95	5.0	1.8	4.2
7. Diseases of the Genito - Urinary System	17	8	25	1.0	1.4	1.1
8. AIDS	1	0	1	0.1	0.0	0.1
9. Others	195	58	253	11.5	10.4	11.2
Total	1698	558	2256	100.0	100.0	100.0

The three major causes of death for assured lives are Neoplasm, Accidents/Poisonings/Violence and Disease of the Circulatory System. They account for 40.4%, 18.3% and 13.5% of total actual deaths respectively. The corresponding figures under the 1993 HK Population Statistics are 31.1%, 5.6% and 27.6% respectively.

Table 1.1 Individual life assurances, males, 1988–92 and 1987–91, medical and non–medical data : actual deaths and ratios of of actual deaths to those expected using the HKA93 table.

Age group (ALB)	Actual deaths 88–92	100 A/E by HKA93	Actual deaths 87–91	100 A/E by HKA93
Duration 0				
–20	52	23.74%	29	19.84%
21–25	60	75.15%	48	70.70%
26–30	64	70.00%	53	71.12%
31–35	76	91.19%	49	76.47%
36–40	56	69.91%	47	77.41%
41–45	32	50.46%	20	45.20%
46–50	27	70.10%	22	77.96%
51–55	14	44.17%	16	74.38%
56–60	10	42.99%	7	43.66%
61–65	5	35.94%	4	41.94%
66–70	4	72.61%	3	82.29%
71+	0	0.00%	0	0.00%
All ages	400	54.74%	298	55.48%
Duration 1				
–20	23	62.74%	16	72.20%
21–25	41	83.22%	32	83.39%
26–30	64	93.43%	49	93.49%
31–35	69	105.32%	48	100.81%
36–40	59	91.67%	45	98.08%
41–45	48	92.05%	45	131.83%
46–50	20	62.60%	13	59.33%
51–55	30	119.15%	26	153.28%
56–60	17	87.31%	14	110.59%
61–65	14	110.05%	13	160.68%
66–70	9	167.42%	5	150.82%
71+	0	0.00%	0	0.00%
All ages	394	91.15%	306	100.56%
Duration 2 and over				
–20	19	60.64%	11	68.81%
21–25	51	122.72%	34	178.07%
26–30	96	84.52%	72	106.95%
31–35	171	103.75%	91	93.52%
36–40	217	113.16%	123	101.33%
41–45	180	99.01%	121	101.08%
46–50	141	120.25%	98	125.43%
51–55	108	96.88%	57	74.02%
56–60	90	96.15%	63	94.09%
61–65	68	90.76%	48	84.42%
66–70	63	108.15%	46	98.20%
71+	76	98.55%	56	81.47%
All ages	1280	102.41%	820	98.17%

Table 1.2 Individual life assurances, females, 1988–92 and 1987–91, medical and non–medical data : actual deaths and ratios of of actual deaths to those expected using the HKA93 table.

Age group (ALB)	Actual deaths 88–92	100 A/E by HKA93	Actual deaths 87–91	100 A/E by HKA93
Duration 0				
–20	20	41.99%	20	51.55%
21–25	14	26.60%	13	29.05%
26–30	16	28.68%	15	38.73%
31–35	14	34.92%	7	26.78%
36–40	8	26.49%	8	40.81%
41–45	14	58.97%	8	56.35%
46–50	9	55.83%	6	54.99%
51–55	4	26.71%	3	28.40%
56–60	4	26.92%	4	39.64%
61–65	2	16.59%	3	37.99%
66–70	4	67.81%	3	95.67%
71+	0	0.00%	0	0.00%
All ages	109	34.58%	90	39.96%
Duration 1				
–20	6	24.09%	7	44.84%
21–25	14	37.54%	11	40.32%
26–30	19	46.86%	16	57.07%
31–35	14	49.75%	12	65.20%
36–40	13	61.10%	12	88.08%
41–45	14	82.29%	6	58.59%
46–50	10	85.13%	7	92.53%
51–55	11	92.99%	6	76.14%
56–60	5	41.90%	6	77.81%
61–65	6	54.36%	5	82.19%
66–70	2	41.43%	3	96.50%
71+	3	292.71%	1	168.26%
All ages	117	52.80%	92	62.95%
Duration 2 and over				
–20	15	67.15%	11	97.36%
21–25	25	71.40%	17	110.86%
26–30	55	74.76%	44	101.05%
31–35	63	100.11%	43	107.93%
36–40	70	139.52%	42	131.63%
41–45	41	105.79%	22	90.84%
46–50	28	104.78%	15	92.32%
51–55	25	79.14%	13	64.97%
56–60	29	84.55%	15	68.95%
61–65	30	84.27%	20	83.51%
66–70	37	135.34%	29	145.71%
71+	26	120.66%	15	83.11%
All ages	444	96.55%	286	99.98%