

Memorandum

To: All Life Insurance Practitioners
From: Micheline Dionne, Chairperson
Committee on Life Insurance Financial Reporting (CLIFR)
Date: January 2006
Subject: **Guidance for the 2005 Valuation of Policy Liabilities of Life Insurers – Clarification on the mortality improvement scale for annuities**

Document 206003

Since the publication of the CLIFR Guidance for the valuation of the 2005 year-end policy liabilities of life insurers for Canadian Generally Accepted Accounting Principles (GAAP) purposes, the subcommittee on Annuitant Mortality of the Committee on Expected Experience has published its study of Individual Annuitant Mortality Experience for years 1997 to 2001. Their report provides useful information on mortality experience, however, it indicates that there is very little mortality improvement for females and reduced mortality improvement for males, on an overall basis when comparing consecutive study years. The report also indicates that one cannot draw any conclusions with the female mortality trend as indicated by the R^2 factor of trend line. After discussing the mortality report with the Annuity Mortality subcommittee and in accordance with them, we would also like to point out the following which impacts the mortality trend:

- the lack of homogeneity of the data over time as (1) contributing companies changed over the study period, (2) age distribution changed markedly, and (3) the distribution between select and ultimate experience changed with the observed reduction of new sales;
- the expected mortality is based on an old table, the 1983 Basic table, where the attained age mortality rates may no longer be appropriate in 2005, without some adjustment.

In comparison, the SOA research on annuity mortality improvement is based on a very large exposure of a homogeneous cohort of CPP/QPP lives and indicates significant mortality improvement for both male and female.

In consequence, CLIFR maintains its recommendation published in October 2005 to use for projecting annuitants mortality improvement the AA Scale with a minimum improvement of 1.5% for attained ages up to 50, and 1% for attained ages between 51 and 80 as illustrated in Appendix A.

The guidance in this letter represents a majority view of members of the Committee on Life Insurance Financial Reporting of appropriate practice consistent with CIA Standards of Practice (Standards). This letter has gone through due process as documented in section 4.2 of the CIA

Due Process paper (November 2001). However, in accordance with that paper, this letter is “not binding”.

As outlined in Section 1220 of the Standards, the “*actuary should be familiar with relevant educational notes and other designated educational material,*” considering that a practice described “for a situation is not necessarily the only accepted practice for that situation and is not necessarily accepted actuarial practice for a different situation.”

MC

APPENDIX A

AA Scale

Attained Age	AA Scale		AA Scale modified as per section 2	
	Male	Female	Male	Female
1	0.02	0.02	0.02	0.02
2	0.02	0.02	0.02	0.02
3	0.02	0.02	0.02	0.02
4	0.02	0.02	0.02	0.02
5	0.02	0.02	0.02	0.02
6	0.02	0.02	0.02	0.02
7	0.02	0.02	0.02	0.02
8	0.02	0.02	0.02	0.02
9	0.02	0.02	0.02	0.02
10	0.02	0.02	0.02	0.02
11	0.02	0.02	0.02	0.02
12	0.02	0.02	0.02	0.02
13	0.02	0.02	0.02	0.02
14	0.019	0.018	0.019	0.018
15	0.019	0.016	0.019	0.016
16	0.019	0.015	0.019	0.015
17	0.019	0.014	0.019	0.015
18	0.019	0.014	0.019	0.015
19	0.019	0.015	0.019	0.015
20	0.019	0.016	0.019	0.016
21	0.018	0.017	0.018	0.017
22	0.017	0.017	0.017	0.017
23	0.015	0.016	0.015	0.016
24	0.013	0.015	0.015	0.015
25	0.01	0.014	0.015	0.015
26	0.006	0.012	0.015	0.015
27	0.005	0.012	0.015	0.015
28	0.005	0.012	0.015	0.015
29	0.005	0.012	0.015	0.015
30	0.005	0.01	0.015	0.015
31	0.005	0.008	0.015	0.015
32	0.005	0.008	0.015	0.015
33	0.005	0.009	0.015	0.015
34	0.005	0.01	0.015	0.015
35	0.005	0.011	0.015	0.015
36	0.005	0.012	0.015	0.015
37	0.005	0.013	0.015	0.015
38	0.006	0.014	0.015	0.015
39	0.007	0.015	0.015	0.015

Attained Age	AA Scale		AA Scale modified as per section 2	
	Male	Female	Male	Female
40	0.008	0.015	0.015	0.015
41	0.009	0.015	0.015	0.015
42	0.01	0.015	0.015	0.015
43	0.011	0.015	0.015	0.015
44	0.012	0.015	0.015	0.015
45	0.013	0.016	0.015	0.016
46	0.014	0.017	0.015	0.017
47	0.015	0.018	0.015	0.018
48	0.016	0.018	0.016	0.018
49	0.017	0.018	0.017	0.018
50	0.018	0.017	0.018	0.017
51	0.019	0.016	0.019	0.016
52	0.02	0.014	0.02	0.014
53	0.02	0.012	0.02	0.012
54	0.02	0.01	0.02	0.01
55	0.019	0.008	0.019	0.01
56	0.018	0.006	0.018	0.01
57	0.017	0.005	0.017	0.01
58	0.016	0.005	0.016	0.01
59	0.016	0.005	0.016	0.01
60	0.016	0.005	0.016	0.01
61	0.015	0.005	0.015	0.01
62	0.015	0.005	0.015	0.01
63	0.014	0.005	0.014	0.01
64	0.014	0.005	0.014	0.01
65	0.014	0.005	0.014	0.01
66	0.013	0.005	0.013	0.01
67	0.013	0.005	0.013	0.01
68	0.014	0.005	0.014	0.01
69	0.014	0.005	0.014	0.01
70	0.015	0.005	0.015	0.01
71	0.015	0.006	0.015	0.01
72	0.015	0.006	0.015	0.01
73	0.015	0.007	0.015	0.01
74	0.015	0.007	0.015	0.01
75	0.014	0.008	0.014	0.01
76	0.014	0.008	0.014	0.01
77	0.013	0.007	0.013	0.01
78	0.012	0.007	0.012	0.01
79	0.011	0.007	0.011	0.01
80	0.01	0.007	0.01	0.01

Attained	AA Scale		AA Scale modified as per section 2	
	Age	Male	Female	Male
81	0.009	0.007	0.009	0.007
82	0.008	0.007	0.008	0.007
83	0.008	0.007	0.008	0.007
84	0.007	0.007	0.007	0.007
85	0.007	0.006	0.007	0.006
86	0.007	0.005	0.007	0.005
87	0.006	0.004	0.006	0.004
88	0.005	0.004	0.005	0.004
89	0.005	0.003	0.005	0.003
90	0.004	0.003	0.004	0.003
91	0.004	0.003	0.004	0.003
92	0.003	0.003	0.003	0.003
93	0.003	0.002	0.003	0.002
94	0.003	0.002	0.003	0.002
95	0.002	0.002	0.002	0.002
96	0.002	0.002	0.002	0.002
97	0.002	0.001	0.002	0.001
98	0.001	0.001	0.001	0.001
99	0.001	0.001	0.001	0.001
100	0.001	0.001	0.001	0.001
Over 100	0	0	0	0