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AIDS Cont'd.

risk group by approximately one-third. The model is further based on the assumption that the insured population which is HIV positive will ultimately grow to only 58% of the total risk group (around 40% of the infected population, assuming infection remains constant).

8. The emergence of AIDS-related claims will be affected by the extent to which insurance companies are able to test applicants for HIV infection. Limitations in risk selection may result in substantial increases in claims.
9. In addition to claims from AIDS itself, increased claims can be expected for people who have the HIV infection and who will incur claims for sickness and death from complications of this infection without necessarily having reached full clinical AIDS.
10. Further developments in treatment may affect the course of the disease. Although somewhat advantageous from a life insurance point of view, such treatments may increase claims for health and disability insurance.

Overall, the Cowell-Hoskins assumptions could have been more pessimistic in a number of areas. From the point of view of human compassion as well as concern over financial impact, it is hoped that events will be more favorable than the projection indicates. However, my impression is that Cowell and Hoskins were striving for as fair a presentation as possible and these projections should be considered as a likely scenario.

Although the Cowell-Hoskins paper represents the opinion of the authors only, the Society of Actuaries AIDS Task Force encouraged and supported this work and is pleased to have Mike Cowell as a Task Force member. However, this is only one phase in our review of the impact of AIDS on the insurance industry, and further deliberations will take place. The Task Force would like to receive your comments on either the Cowell-Hoskins paper or any aspect of projecting the impact of AIDS on the insurance industry. Please send them to me at my *Yearbook* address.

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The Canadian Institute and Its President

Deborah Poppel, features editor of *The Actuary*, recently interviewed J.Dickson Crawford, who is beginning his term as President of the Canadian Institute of Actuaries.

Poppel: What is the major role of the CIA?
Crawford: The chief role of the CIA is to make sure that the public receives high quality actuarial services in Canada. We focus on three areas: providing consistent admission procedures, defining acceptable standards of practice, and monitoring compliance with these standards. The CIA also provides opportunities for actuaries to meet and discuss different areas of practice, new developments, and research.

Poppel: Does this mean the CIA is similar to the American Academy of Actuaries?
Crawford: Yes, it carries out a similar role in standards development and interacting with the public. However, the CIA has been able to achieve unique recognition of the FCIA in statutes for both pension and insurance valuations. In the U.S., the Academy has achieved recognition of the MAAA, but it is not a unique position.

Poppel: How does one become a member of the CIA?
Crawford: There are three requirements: (1) affiliation—nearly all Fellows of the CIA are Fellows in the SOA, the CAS, or the Faculty or Institute in Great Britain; (2) education—for example, completing the Canadian specialty under the SOA or CAS syllabus; and (3) experience—a three-year period of Canadian experience is required.

Poppel: What are the main differences between U.S. and Canadian actuarial practices?
Crawford: The main differences in practice are driven by legislative and regulatory differences. For example, ERISA means that pension actuaries face a different set of rules in the U.S. In Canada, each province sets its own pension regulation. The growing body of legislation in both our countries has been following increasingly divergent tracks, which would make it difficult for an actuary to practice competently in both countries.

Poppel: Do you think there is the appropriate level of interplay between actuaries in the U.S. and Canada?
Crawford: Yes, we cooperate to a great extent on the education and examination process. We have joint seminars and symposia, for example, for valuation actuaries, casualty actuaries and consultants. We share results of research studies.

Poppel: The unification of the U.S. actuarial profession, specifically, of the multitude of actuarial bodies, is currently under discussion. Does such an issue exist in Canada?
Crawford: We are participating in the task force established by the Council of Presidents. We have been fortunate in Canada to have had a unified profession since 1965 when the CIA was created. We believe it has been of great benefit to Canadian actuaries.

With unification goes the responsibility to ensure that all actuaries in Canada see the CIA as responsive to their particular needs, whether they are French or English; life, casualty or pension; employed by an institution or in private practice. One practical example of this thinking is found in our second guiding principle on education, which states that an FCIA shall be examined on the basic theory, concepts, and standards required for all the major areas of actuarial practice. To accomplish this we are working actively with the SOA and CAS to ensure both the content and flexibility to enable a Canadian actuary to meet this goal, whichever society is chosen as the route to Fellowship.

Poppel: What are the big issues currently facing the Canadian actuary?
Crawford: The biggest issue is the trend toward increasing explicit standards of actuarial practice.

Poppel: What are the forces behind this trend?
Crawford: More competition in recent years has thinned our profit margins and increased risk to insurance companies. In a broader context, some trusts and regional banks have failed, resulting in a general concern over the

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security of financial promises, and a resultant concern that regulators will intervene to prevent additional losses. Canadian actuaries must continually demonstrate that our standards are appropriate in theory and practical application.

Poppel: Does an increase in standards constrain the actuary's freedom of professional judgment?

Crawford: That concern has been raised by some Canadian actuaries. Others feel just as strongly that different times and different public expectations require a different response from our profession. It's a balancing act; we need to put fences around the corral to tighten things up, but leave in enough flexibility so that actuaries can and must use professional judgment.

Poppel: What is the role of the CIA in all of this?

Crawford: The CIA is trying to take an assertive role in developing more explicit standards of practice. We have a series of committees charged with developing standards and making sure they are given sufficient hearing.

Poppel: When will new standards be in place?

Crawford: Some are already in place. Standards for transfer values under pension plans are approaching the end of a one-year trial period. Along with several valuation technique papers, drafts of two major papers dealing with scenario testing for solvency standard purposes and provisions for adverse deviations in life company reserves have just been sent to valuation actuaries for comment. These will be debated and revised over the fall and winter, leading to adoption in mid-1988 for application in 1989.

Poppel: How in practicality will the new standards work? Who will make sure they are followed?

Crawford: The CIA will be responsible for monitoring to make sure that standards are being followed. How exactly that will be done is still being debated. The regulators clearly have a strong interest in making sure that standards are being followed, and they will rely to a great extent on members of our profession.

Poppel: What implications does this have for the future of the profession in Canada?

Crawford: The implications are profound. All these developments are reinforcing the fundamental responsibilities that actuaries have to clients, employers, regulators and, most importantly, to society as a whole. The role of the valuation actuary employed within a life company is unique. He or she is typically a senior member of the management of the company but at the same time is accountable to the public through the regulatory process. The effective balancing of this dual role will be a key to the acceptability of the position of the valuation actuary.

This is a time of change and transition which presents the profession with important opportunities. While there are always risks at times like this, I am confident that actuaries in Canada will measure up to the challenges ahead.

New Funding Rules for Pension Plans in Canada

by Michael Cohen

The last couple of years have been busy for pension plans in Canada, with the passage of federal and provincial acts improving minimum standards for plans under federal jurisdiction (for example, those of banks, interprovincial and international transportation and telecommunication) and those under provincial jurisdictions in Alberta, Nova Scotia and Ontario. While these acts, which are essentially uniform in most aspects, contain many features of actuarial interest, I will describe changes to the detailed funding rules for defined benefit pension plans found in the regulations of these various acts.

Let me begin by summarizing the previous rules, which, of course, are still required in jurisdictions where the new-style pension benefits acts are not yet in force. An actuarial valuation is required every three years. The actuary is required to calculate the current service cost, using an acceptable actuarial cost method and going-concern actuarial assumptions, including an assumption regarding salary increases and indexation, in plans where this is relevant. The actuary is also required to calculate any unfunded liability caused by benefit increases, basis strengthening or experience losses. If any such unfunded liabilities were to be revealed, those caused by benefit

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increases or basis strengthening could be amortized as a level dollar payment over a period not exceeding 15 years, while experience losses were to be amortized over 5 years or less.

It should be noted that acceptable valuation methods in Canada include the unit credit method, the entry age and attained age methods, and aggregate methods. This latter family of methods fits less well into the regulatory scheme, since unfunded liabilities by origin are difficult to identify.

These rules have served well, however. Few plans have terminated with unfunded liabilities since the original inception of pension benefits legislation in the mid-1960s, and funding levels in most plans are high. Indeed, a large percentage of plans are fully funded on a going-concern basis. Nonetheless, it was felt that some manipulation was possible. For example, with a little foresight prospective experience deficiencies could be turned into basis strengthening, thereby extending the amortization period. It was also felt that more flexibility could be given to well-funded plans, while tightening up on other plans, such as flat-benefit plans. The latter have traditionally been of concern to pension regulatory authorities (and no doubt to the plan actuaries as well).

The essence of the reform is to permit 15-year amortization of all types of going-concern unfunded liabilities, however caused, on a percentage of payroll basis, and a level dollar amount, subject to meeting a solvency valuation test. If, however, the plan has a solvency deficiency, this deficiency must be funded over 5 years, with the balance of the going-concern unfunded liability, if any, funded over 15 years. Current service costs would be calculated on a going-concern basis as before.

Liabilities for the solvency valuation would be calculated on a unit credit method, using reasonably current interest rates (either streamed or blended to reflect current and long-term expected rates) but without termination rates or salary increase assumptions. The retirement age assumption would be expected to reflect experience should the plan actually terminate. In addition, if any special benefits were triggered by plan termination, these should be valued as well.

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