



SOCIETY OF ACTUARIES

Article from:

# Health Section News

June 1998 – No. 35



# HEALTH SECTION NEWS

"For Professional Recognition of the Health Actuary"

NUMBER 35

JUNE 1998

## Chairperson's Corner

by Thomas R. Corcoran

I would like to take this opportunity to address a subject that was always a big question for me, and may be a question for you. That is "What does the Health Section do?"

Two major responsibilities of the Health Section are establishing the content and quality of health sessions at the Society of Actuaries meetings and recruiting authors and collecting news for this newsletter.

Developing session content and quality for SOA meetings requires coordination of a huge effort. The Council and numerous volunteers have been extremely busy preparing for the Health Specialty Meeting in Hawaii, June 22-24. The Health Section is sponsoring 54 diverse sessions, so there should be plenty of interest to each of you.

We will be kicking things off with a welcoming Health/Pension reception on June 21 for you and your guests. In addition, the Section Council is jointly sponsoring an open session with the SOA Health Benefit Practice Advancement Committee and the Academy Health Practice Council on June 24. This session will tell you what we have planned for the upcoming year and will give you an opportunity to tell us what we ought to be doing. We look forward to seeing you there.

*continued on page 2, column 1*

## "Credibility"—The Health Actuary's Nemesis or Friend?

by Thomas J. Stoiber

Most professionals exhibit an almost innate understanding of certain fundamental concepts developed through education and experience. The benefits to clients are obvious—no time wasted working through what would otherwise be time-consuming, usually complex, issues. But did you ever wonder what would happen if the professional had only a vague understanding of a key concept or its application to a practical situation? And what if two professionals working on the same practical issue have a different understanding of that concept and can't reconcile their differences? "Credibility" seems to be one such concept for health actuaries.

Health actuaries often rely on projections of historical experience. The actuary knows that experience that is not "fully credible" (whatever that really means) may deviate from expected simply due to random variation implicit in the nature of the business. The expected magnitude of the variation is well understood to be larger as the dataset becomes smaller. Removal of this size-dependent variation is important to get to the underlying statistic of the experience. Commonly that statistic is the mean cost, which in many cases

will be the basis for premiums or reserves. The question becomes how to quantify the value of credibility in health situations and then how to apply it to reach the goal of understanding the underlying experience.

The SOA has now formally taken up this question for the health insurance actuary. The Credibility Task Force for Health Coverage was assembled nearly two years ago to identify needs, evaluate them, and find solutions.

So far, the Task Force has identified multiple needs:

- **Education.** Some of the members of the Task Force expressed concern that many actuaries have either forgotten the mathematics of credibility or don't know how to apply it in real situations.

There is little on practical applications of credibility theory in the health syllabus. Practical application of credibility theory has received more emphasis among casualty actuaries. However, direct application to health insurance is not appropriate because of the highly dependent nature of a health

*continued on page 2, column 3*

### In This Issue

	<i>page</i>		<i>page</i>		<i>page</i>
1998 Hawaii Spring Meeting . . . . .	2	ERISA—A Focal Point for Healthcare Debate and Reform <i>by James Murphy</i> . . . . .	9	Section Elections . . . . .	12
Affordable Health Insurance Pricing for Faithful Persisters <i>by Dinkar B. Koppikar</i> . . . . .	6	Health Benefit Systems Practice Area/Health Section Status Report . . . . .	12	A Simplified Method for Calculating Contract Reserves <i>by Robert Cummings and Leigh Wachenheim</i> . . . . .	3
Chairperson's Corner <i>by Thomas R. Corcoran</i> . . . . .	1	"Managed Care" Capitation and Beyond"—Two-Day Seminar . . . . .	12	Statutory Valuation Morbidity Standards for Individual and Group Disability Benefits . . . . .	10
"Credibility"—The Health Actuary's Nemesis or Friend? <i>by Thomas J. Stoiber</i> . . . . .	1	Minutes of the Health Section Council Conference Call <i>by Bernie Rabinowitz</i> . . . . .	11		

**Chairperson's Corner***continued from page 1*

Planning for the SOA Annual Meeting in New York City is in full swing as well. The Health Section is sponsoring 16 sessions, including a luncheon meeting of the Section. We can look forward to hearing Michael Millenson, a nationally recognized author and speaker, on issues affecting the cost and quality of medical care.

On the news front, Leigh Wachenheim, the newsletter editor, has worked diligently to produce this issue, with timely articles on "Affordable Health Insurance," "Credibility and Health Insurance," "ERISA—A Focal Point for Healthcare Debate and Reform" and "Contract Reserves for Health Insurance." We hope you find some points of value in these articles. Leigh encourages letters to the editor to discuss these or other issues of interest.

Producing a timely newsletter requires a big effort from Leigh and her co-editors. They are already busy on the third and fourth quarter issues.

The meetings and the newsletter are the most visible efforts of the Health Section, but much other work goes on that is less visible. The Health Section also works with the SOA Health Practice Advancement Committees, the Academy Health Practice Council, and various task forces on a multitude of

other projects. A comprehensive array of Section activities is addressed in columns throughout this newsletter.

I hope this issue of the newsletter gives you a better feel for the activities of the Health Section and also gives you ideas about additional things that you would like to see happen. We look forward to hearing from you.

*Thomas R. Corcoran, FSA, is an actuary with Tillinghast-Towers Perrin in Weatogue, Connecticut and the Chairperson of the Health Section Council.*

## SOA 1998 Spring Meeting

Maui, Hawaii  
Health &  
Pension

June 22–24,  
1998



**T**he Health Section is sponsoring 54 sessions at this meeting. Please refer to your meeting program for further information.

**Credibility***continued from page 1*

insurance event to prior history. (Many casualty insurance events are independent, accident related.)

- *Standardization.* Others noted the lack of any single "acceptable" formula.
- *Access to Data.* Still others thought that even if the mathematics and formula issues were addressed, only those actuaries employed in the largest of companies who had access to large datasets could apply credibility theory effectively.

Actuaries working with small- to medium-size health blocks, either because of company size or an immature line of business, lack access to larger datasets. The SOA has addressed this issue for life, pension, and, to a lesser extent, disability income and long-term-care plans with intercompany studies and published mortality and morbidity tables.

Before explaining what our Task Force has been up to, and what to expect from us, it would be helpful to use one real-life situation that is prompting our effort at this time to better focus the issue.

Premium rate regulators have become particularly sensitive to approving premium rate increases that are either too small or too great in recent years. A premium rate increase is only "approvable" where experience justifies the actuary's cost estimates. The problem, of course, is determining what constitutes "justification." But there is no question that justification is dependent upon the credibility of the experience. Where historic experience is not deemed to be "credible," we actually need to answer three questions:

- (1) What other data (industry, or within one's own company) are reasonable sources of similar information?
- (2) What are the acceptable formulas for the nature of business being evaluated?
- (3) What are the appropriate credibility factors within the formulas of question 2?

*continued on page 7, column 1***HEALTH SECTION NEWS**

Issue Number 35, June 1998

Published by the Health Section  
of the Society of Actuaries  
475 N. Martingale Road, Suite 800  
Schaumburg, IL 60173

World Wide Web: <http://www.soa.org>

This newsletter is free to Section members. A subscription is \$20 for nonmembers.

Current-year issues are available from the Communications Department.

Back issues of Section newsletters have been placed in the Society library.

Photocopies of back issues may be requested for a nominal fee.

**Leigh M. Wachenheim, Editor**

Milliman & Robertson Inc.  
8500 Normandale Lake Boulevard, Suite 1850  
Minneapolis, MN 55437-3830

Phone: 612-897-5300

Fax: 612-897-5301

e-mail: [leigh.wachenheim@milliman.com](mailto:leigh.wachenheim@milliman.com)**HEALTH SECTION COUNCIL**

**Thomas R. Corcoran**, Chairperson  
**Thomas F. Wildsmith**, Vice-Chairperson  
**Bernard Rabinowitz**, Secretary/Treasurer

**Michael S. Abroe**, Council Member  
**Robert C. Grignon**, Council Member  
**Lee Eric Launer**, Council Member  
**David W. Wille**, Council Member  
**Dale H. Yamamoto**, Council Member  
**Robert O. Young**, Council Member

Facts and opinions contained in these pages are the responsibility of the persons who express them and should not be attributed to their employers, the Health Section, its committees, or the Society of Actuaries. Errors in fact, if brought to our attention, will be promptly corrected.

Copyright 1998 Society of Actuaries. All rights reserved.  
Printed in the United States of America.