AWCBC CFO Meeting

November 12 & 13, 2013
Vancouver, B.C.

Actuarial Update

Stan Warawa
Chair, CIA Committee on Workers' Compensation

Committee on Workers' Compensation (CWC)

The CWC is a committee of the Canadian Institute of Actuaries (CIA). The CWC:

- Deals with issues and standards of practice related to workers' compensation, or more generally PPICP's (Public Personal Injury Compensation Plans)
- Promotes continuing education in preparing educational notes, research papers and other guidance material
- Is currently composed of 11 members

Standards of Practice (Part 5000)

- Practice-Specific Standards of PPICP's were first adopted in 1994.
- Part 5000 of the Standards of Practice (SOP) which relate to PPICP's were revised by the Actuarial Standards Board (ASB) in early 2011. These new SOP's are effective for calculation dates after March 15, 2011 in respect of financial reporting periods beginning after 2010.
- An exception relates to the provision for long latency occupational diseases, which is applicable to calculations on or after December 31, 2014.

Recent Documents Completed

The CWC has undertaken to draft a series of Education Notes and Research Papers to provide guidance for actuaries in the implementation of these new SOP's:

Education Notes

- Provision for **Future Administration Expenses** to be included in Public Personal Injury Compensation Plans' Financial Statements (2009) *Document 209094*
- Determination of Best Estimate Assumptions for **Investment Return** (PPICP) (2012) *Document 21206* (re SOP § 5430)
- Determination of Best Estimate **Indexation** Assumptions for PPICP Liability Calculations (**Inflation**) (2013) (re SOP § 5430)

Research Paper

- Funding of Public Personal Injury Compensation Plans (2011)

Future Documents under Development

Education Notes

- Margin for **Adverse Deviations** (re SOP § 5450)
  e.g. when a margin is appropriate, deterministic vs. stochastic margin
- Selection of **Non-Economic Assumptions** (re SOP § 5440)
  e.g. mortality, runoff patterns, etc.
- **Sensitivity** Testing (re SOP § 5460)
  e.g. impact on liabilities of a 100 basis point decrease in investment return
- Actuarial **Reports** (re SOP § 5700)
  e.g. contents of actuarial reports
- **Data** (re SOP § 5320)
  e.g. dealing with credibility and reliability of data

Research Paper

- Latent Occupational Disease Liability (LODL) Calculation
  (re SOP § 5410.08)
  Expected to be completed by 2013 Year End

LODL Research Project

- In 2012, the CIA issued an RFP for a Research Project into how the LODL might be calculated.
- The objective was to provide some guidance for PPICP actuaries who are charged with calculating the LOD liability and to promote some consistency in approach across jurisdictions
- The successful proponent was the U.S. consulting firm of Oliver Wyman (OW).
- The project commenced in the fall of 2012. Delays were encountered in part due to time required to assemble and “cleanse” LOD data from various sources.

LODL Draft Report

- First draft of OW LODL report issued in early November 2013. This draft report is in the process of being reviewed by the CWC committee.
- This first draft covered mostly the issue of what LOD diseases should be included.
- An update to this draft is still to come, covering the critical areas of quantification of liabilities and summarization of best practices.

LODL Draft Report (cont'd)

Some highlights for the OW LODL Draft Report follow. It should be noted that the CWC has not yet reviewed the draft report in detail and may not agree with all elements.

- The following 5 entities contributed data to the project:
  - The Alberta Workers Compensation Board
  - The Workers Compensation Board of British Columbia
  - A Competitive State Fund in the United States
  - Two Large United States Ship Manufacturing, Repair, and Servicing Corporations

LODL Draft Report (cont'd)

- The study utilized approximately 150,000 LOD claims.
- OW recommends the following disease categories for which a liability should potentially be calculated:

Low Frequency, High Average Cost

- Mesothelioma, Asbestosis, Lung Cancer*
- All Other Cancer
- Pneumoconiosis (excluding Asbestosis)
- Obstructive Respiratory Diseases (combined with All Other Respiratory)

High Frequency, Low Average Cost

- Hearing Loss
- Cumulative Trauma Claims Combined** (excluding Carpal Tunnel Syndrome)
- Carpal Tunnel Syndrome

* The recommendation is to combine Mesothelioma, Asbestosis, and Lung Cancer into a single category due to the similarity of key metrics for each of these individual diseases.

** Includes the inflammatory diseases Tendonitis, Bursitis, Epicondylitis, etc.

LODL Draft Report (cont'd)

- OW recommends that the following disease categories should not be included in the LODL calculation*:
  - Infection
  - Eye Condition All
  - Mental Stress
  - Physical Stress
  - Reaction to a Foreign Substance
  - Vascular
  - Cumulative Nerve Disease (other than Carpal Tunnel Syndrome)

* These categories are recommended not to be included due to low incidence, low lag, low cost, some combination of these items or other circumstances unique to the disease category.

LODL Draft Report (cont'd)

Some summary statistics on disease categories that are included:

	Average Cost	Average Age at Diagnosis
Low Frequency, High Average Cost		
Mesothelioma, Asbestosis, Lung Cancer	$ 200,898	65
All Other Cancer	$ 200,188	62
Pneumoconiosis (excluding Asbestosis)	$ 205,389	54
Obstructive Respiratory Diseases (combined with All Other Respiratory)	$ 83,144	44
High Frequency, Low Average Cost		
Hearing Loss	$ 13,950	62
Cumulative Trauma Claims Combined* (excluding Carpal Tunnel Syndrome)	$ 27,148	41
Carpal Tunnel Syndrome	$ 29,951	42

* Includes the inflammatory diseases Tendonitis, Bursitis, Epicondylitis, etc.

LODL Draft Report (cont'd)

- The next updated report from OW is expected to address remaining critical issues including:
  - Latency period (start of exposure to disease diagnosis) for different diseases
  - Potential LODL calculation methodologies
  - Survey of best practices