

## Memorandum

**To:** All Fellows, Affiliates, Associates, and Correspondents of the Canadian Institute of Actuaries, and Other Interested Parties

**From:** Tyrone G. Faulds, Chair  
Actuarial Standards Board  
Dominic Hains, Chair  
Designated Group

**Date:** September 19, 2016

**Subject:** **Notice of Intent to Revise Mortality Improvement Rates and Associated Margins for Adverse Deviations within the Practice-Specific Standards on Insurance Contract Valuation: Life and Health (Accident and Sickness) Insurance (Subsection 2350) and the Accompanying Promulgation**

**Comment Deadline:** **December 1, 2016**

*Document 216094*

---

### Introduction

This notice of intent (NOI) to revise subsection 2350 of the practice-specific standards for insurance with regards to the inclusion of mortality improvement in the calculation of insurance contract liabilities, and the accompanying promulgation of prescribed mortality improvement rates referenced in the standards, was approved for distribution by the Actuarial Standards Board (ASB) on August 10, 2016.

### Background

#### Life insurance and annuity mortality

In 2011, subsection 2350 of the Standards of Practice was modified with regards to the inclusion of mortality improvement for insurance mortality and annuity mortality in the calculation of insurance contract liabilities, accompanied by a promulgation from the ASB describing the prescribed mortality improvement rates. The prescribed mortality improvement rates were supported by a research paper published in 2010, based on Canadian population mortality data from 1921–2002. The intent was to periodically review the prescribed mortality improvement rates described in the promulgation.

Since the promulgation, there have been many developments worldwide on mortality improvement models, and a number of mortality improvement tables have been

published (for example the CPM-B table in Canada and the MP-2014 table in the United States). Many of these models are two-dimensional models with mortality improvement rates a function of both calendar year and attained age, in comparison to the current prescribed mortality improvement rates that are a function of the attained age only. In addition, Canadian population mortality data is now available for calendar years up to 2011, and data for 2012 and 2013 is expected to be available before the end of the year.

In 2014, a new Task Force on Mortality Improvement of the Canadian Institute of Actuaries was created under the Member Services Council, with representatives from the life insurance, annuity, pension, and social security practices and academics. The objective of the task force is to publish a research paper documenting the development of a best estimate mortality improvement rates table applicable to the Canadian general population, using Canadian population mortality data up to 2013, and to provide an opinion on a range on reasonable adjustments for the different subgroups. The ASB will consider making changes to the pension standards with respect to mortality improvement once the research is completed.

### **Accident and sickness**

The Standards of Practice are currently silent with respect to the application of mortality improvement in the valuation of accident and sickness insurance contracts. Starting in 2014, the Committee on Life Insurance Financial Reporting has included guidance applicable to the valuation of accident and sickness contracts in its annual educational note on the guidance for the valuation of insurance contract liabilities of life insurers.

### **Summary of Proposed Changes**

The ASB is proposing to revise the general standards and the promulgation as indicated below.

#### **Mortality improvement rates**

Review the appropriateness of the current subsection 2350 of the Standards of Practice on the inclusion of mortality improvement in the best estimate mortality assumption used for the calculation of insurance and annuity contract liabilities, and determine whether an update to that subsection and the promulgation of prescribed mortality improvement rates is necessary.

All elements will be considered, including the best estimate mortality improvement rates used in the development of the prescribed rates, the level and structure of the margins for adverse deviations, and the approach with the minimum increase and maximum reduction in insurance contract liabilities resulting from the inclusion of mortality improvement rates.

#### **Appropriate level of aggregation**

Provide additional guidance in subsection 2350 of the Standards of Practice on the definition of “appropriate level of aggregation” with regards to the impact of inclusion of mortality improvement to insurance contract liabilities.

## **Application of mortality improvement rates to accident and sickness insurance**

Provide additional guidance in subsection 2350 of the Standards of Practice on the application of mortality improvement rates for the calculation of accident and sickness insurance liabilities.

### **Timeline**

The ASB intends to publish an exposure draft and initial communication of promulgation in March 2017. Final standards and the new promulgation are expected to be effective October 15, 2017.

### **Your Feedback**

Comments on this NOI are invited **by December 1, 2016**. Please send your comments, preferably in an electronic format, to Dominic Hains at [dhains@rgare.ca](mailto:dhains@rgare.ca), with a copy to Chris Fievoli at [chris.fievoli@cia-ica.ca](mailto:chris.fievoli@cia-ica.ca). No other specific forums for submitting comments are planned regarding this NOI other than the receipt of written comments at the above addresses.

The ASB's due process has been followed in the development of this NOI.

The designated group responsible for the development of the revisions to the standards consists of Dominic Hains (Chair), Anna Doudina, Alexis Gerbeau, Lisa Giancola, and Christoph Trachsel.

TF, DH