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Comments to the National Association of Insurance Commissioners (NAIC)
Life Insurance Workstream #4 of the Special (EX) Committee on Race and Insurance
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I want to thank the NAIC and the Special (EX) Committee for Race and Insurance, Workstream #4 for providing me the opportunity to present to you today. I am Mary Bahna-Nolan, a life actuary and volunteer for the American Academy of Actuaries (“Academy”)¹. The Academy shares your goal of identifying and exploring issues pertaining to race, diversity, and inclusion and ways to address practices that could create barriers to obtaining life insurance coverage, or conversely provide incentives for inclusion to, life insurance products.

While the issues that the Special (EX) Committee for Race and Insurance is looking at are transcendent on all lines of insurance, an important issue for Workstream #4 that distinguishes life insurance from other types of insurance is that the purchase of life insurance is a voluntary transaction between a consumer and an insurance company. Further, the purchase is an independent, or stand-alone decision not mandated as a result of another purchase (e.g. obtaining a mortgage). This emphasizes the importance of the risk selection or the underwriting process to ensure the insurability of the applicant, the suitability of the insurance from both the financial need for the insurance, and the ability to pay for the insurance. As such, the determination of the insurability is often a factor of both medical and nonmedical data.

The risk selection or underwriting process is often only done prior to a policy or contract issuance with rates that are, at some level, guaranteed for the life of the policy or contract and for contracts that are non-cancellable by the insurer, other than for non-payment of premium lack of policy performance.

The underwriting process for life insurers has a long history of change as new learnings and research, tools, products, data, and computing power have evolved. What hasn’t changed is that the risk classification process is foundational to the underlying principles of insurance. The purpose of underwriting is to align the risk characteristics with an expected outcome and to group similar risk pools.

The process of risk classification involves gathering data to understand the applicant’s unique risk profile, including personal, financial, and health-related data provided by the applicant. In many cases, verification of such data is obtained through additional data sources and/or review of the applicant’s medical records. The

¹ The American Academy of Actuaries is a 19,500-member professional association whose mission is to serve the public and the U.S. actuarial profession. For more than 50 years, the Academy has assisted public policymakers on all levels by providing leadership, objective expertise, and actuarial advice on risk and financial security issues. The Academy also sets qualification, practice, and professionalism standards for actuaries in the United States.

collection of this data helps to align an applicant's risk profile with the aggregated risk profile used by the insurer in establishing product price for a particular risk class. This risk alignment is often demonstrated by statistical or other mathematical analysis of available data. This data may include direct experience of a carrier or reinsurer, medical or clinical research data, and expert opinion. In the risk selection process, it is common that different paths and/or data elements are gathered for individuals based on what is disclosed on the application or learned throughout the process, the age of the applicants, or the amount of insurance requested.

Throughout the history of underwriting, new data sources and ways to use data have arisen. New data or data sources should be evaluated to assess their impact on risk classification. When new data is evaluated, it is evaluated for its protective value as an additional piece of data or replacement for existing data element(s) in the risk classification process. Mortality studies and/or retrospective studies are often used to assess the value of data that are or can be used for underwriting. Any changes to risk classification systems are evaluated and built into a product's design and pricing. Regulations are in place that govern data that may be used in the underwriting processes such as HIPAA², FCRA,³ and the Unfair Trade Practices Act.

In life insurance, actuaries and underwriters have different but interdependent roles related to risk classification.

- Actuaries:
 - Determine insurance pricing and risk pool characteristics;
 - Develop mortality assumptions for each risk pool;
 - Analyze changes to risk classification because of the impact to critical actuarial activities; and
 - Determine policy reserves through modeling and risk management.
- Underwriters:
 - Follow established risk classification principles that differentiate fairly on the basis of sound actuarial principles and/or reasonable anticipated mortality experience;
 - Are accountable for developing the underwriting process and classifying applicants into risk pools; and
 - Assign risks to groups based on the benefit costs of the risk pool.

Actuaries and underwriters work together to align risk classification with mortality expectations for each risk pool. Changes in the risk selection process are often analyzed to understand the impact a change may have on risk selection and the potential for adverse selection. New data sources are analyzed as to their relevance, credibility, and quality. Analysis around new data inputs includes whether the data is fit for purpose, does not unfairly discriminate or include unintended bias, and appropriately classifies risks. In addition, compliance with existing laws such as HIPAA, FCRA and Unfair Trade Practices is an important consideration in how data is used and provides consumers the ability to know and agree to which data is used in the risk classification process and the ability to dispute inaccuracies in the data.

Recently, there has been an increased effort in the life insurance industry to lessen the more invasive and time-consuming elements of the risk selection processes such as the collection of bodily fluids (e.g., home office specimens [HOS] and blood) and physical measurements, often collected from a third-party paramedical professional that comes to an applicant's home or place of work. These changes are often described as "accelerated underwriting," and are not limited to the removal of fluids and other measurements.

² Health Insurance Portability and Accountability Act of 1996

³ Fair Credit Reporting Act

Accelerated underwriting is another part of the ongoing evolution of underwriting. There is often a trade-off between the predictability of mortality experience and evaluation time. Different risk classification methods and tools may impact the overall level of mortality but also the expected pattern of mortality, including the time it takes for the benefits of underwriting to wear off. The use of alternative data, predictive models, and algorithms may be used to reduce the added expected mortality cost from removal of more traditional underwriting data (i.e., fluids). Time is required to understand and realize the true impact of the emerging risk classification methods on the consumer experience.

The use of predictive models and algorithms, along with additional data sources, may be used to forecast probabilistic outcomes around relative mortality or risk. Models incorporate statistics to identify interdependencies among data elements and correlation to the risk characteristics being studied. Algorithmic underwriting is not new to life insurance. Underwriting guidelines have long been based on various algorithms. The use of predictive models and improved computing power has helped to remove some of the human application or judgements in the algorithms historically used.

Of particular interest noted by this Special (EX) Committee on Race and Insurance and the Workstream #4 group are concerns as to whether the use of alternative, nonmedical data sources and the use of predictive models and algorithms inject hidden biases or serve as proxies for prohibition of risk selection based on protected class information, most specifically race. The use of algorithms or an alternative data source does not remove actuaries or underwriters from adherence to the principles of risk classification; risk classification must be based on sound actuarial principles related to actual or reasonably anticipated experience to assign risks to groups based upon the expected cost or benefit of the coverage or services provided.

There is a strong correlation between socioeconomic factors and mortality/morbidity experience. The racial aspect of socioeconomic differences is systemic beyond insurance application. Life insurers do not collect information or directly use protected class information of race, religion, education, or ethnicity in their risk classification or rate-setting processes. Therefore, additional analysis and judgment is necessary to ensure proxies are not unintentionally discriminatory against one of these protected classes while not removing the ability to correctly identify mortality and morbidity differentials important to the risk classification and risk pools established.

Actuaries are bound by a code of conduct. The purpose of this Code of Professional Conduct is to require actuaries to adhere to the high standards of conduct, practice, and qualifications of the actuarial profession, thereby supporting the actuarial profession in fulfilling its responsibility to the public. Actuarial standards of practice (ASOPs) are developed by the Actuarial Standards Board and are binding on members of the U.S.-based actuarial organizations when rendering actuarial services in the U.S. The Actuarial Standards Board regularly adds and updates ASOPs. Failure to meet applicable standards of practice is a violation of the Code of Professional Conduct that may result in an actuary being brought before the Actuarial Board for Counseling and Discipline (“ABCD”). An adverse ABCD finding can result in discipline ranging from reprimand to expulsion from U.S. based actuarial organizations.

The following ASOPs apply to life actuaries who perform risk classification, risk selection, or analyze the related data and models:

- ASOP No. 12, *Risk Selection*
- ASOP No. 23, *Data Quality*
- ASOP No. 56, *Modeling* (effective October 2020)
- ASOP No. 25, *Credibility Procedures*
- ASOP No. 54, *Pricing of Life Insurance and Annuity Products*
- *Setting Assumptions* (currently being drafted).

Actuarial Standard of Practice (ASOP) No. 12, *Risk Selection*

In order to properly discuss “unfair discrimination,” it is important to have a clear definition of “fairness.” Fairness is defined many different ways, and what may seem “fair” or equitable to some will seem “unfair” to others. For U.S. actuaries, when we focus only on the question of “fair” insurance rates, we are guided by ASOPs. ASOPs provide guidance on the techniques, applications, procedures, and methods that reflect appropriate actuarial practices in the United States. Guidance on this topic is included in ASOP No. 12, *Risk Classification*.

Using ASOP No. 12 as guidance, rates within a risk classification system would only be considered equitable if differences in rates reflect material differences in expected cost for risk characteristics. This is demonstrated if it can be shown that the variation in actual or reasonably anticipated experience *correlates* to the risk characteristic. For the purposes of rate setting guided by risk classification, it is important to note that it is not necessary for an actuary to establish a *cause-and-effect* relationship between the risk characteristic and expected outcome. ASOP No. 12 recognizes that there can be significant relationships between risk characteristics and expected outcomes where a cause-and-effect relationship cannot be demonstrated. ASOP No. 12 also includes important considerations on practicality, applicable law, and data quality (among others).

Actuarial Standard of Practice (ASOP) No. 23, *Data Quality*

The purpose of this ASOP is to provide guidance to the actuary when performing actuarial services involving data. This may prove helpful in light of the extended discussion of data in the following paragraphs.

Actuarial Standard of Practice (ASOP) No. 56, *Modeling*

This standard became effective on October 1, 2020. The stated purpose of this ASOP is to provide “guidance to actuaries when performing actuarial services with respect to designing, developing, selecting, modifying, using, reviewing, or evaluating models.”

Actuarial Standard of Practice (ASOP) No. 25, *Credibility Procedures*

The purpose of this ASOP is to provide guidance to actuaries with respect to selecting or developing credibility procedures and the application of those procedures to sets of data. This applies to the risk classification process when the actuary is evaluating subject experience for potential use in setting assumptions without reference to other data and in the identification of relevant experience and the selection and implementation of a method for blending the relevant experience with the subject experience, including the relevance and applicability of alternative data sources and model inputs.

Such relevant experience should have characteristics similar to the subject experience, where the characteristics the actuary should consider include items such as demographics, coverages, frequency, severity, or other determinable risk characteristics that the actuary expects to be similar to the subject experience.

In addition, the ASOP requires consideration for the homogeneity of the data and the actuary should consider the homogeneity of both the subject experience and the relevant experience and consideration that within each set of experience, there may be segments that are not representative of the experience set as a whole.

Actuarial Standard of Practice (ASOP) No. 54, *Pricing of Life Insurance and Annuity Products*

This ASOP provides guidance to actuaries when performing actuarial services with respect to the pricing of life insurance and annuity products, including riders attached to such products. This standard is applicable when a product is initially developed or when charges or benefits are changed for future sales.

Proposed Actuarial Standard of Practice (ASOP), *Setting Assumptions*

This proposed ASOP would provide guidance to actuaries when performing actuarial services that involve setting assumptions, giving advice on setting assumptions, or assessing the reasonableness of assumptions set by others. This standard would apply to actuaries when performing actuarial services that require the setting of assumptions for which the actuary is taking responsibility, giving advice on setting assumptions, or assessing the reasonableness of assumptions set by others and may include analysis of data or experience, industry studies, trends, economic forecasts, and other analyses, as appropriate.

The [full list of ASOPs](#) is extensive, and it is certainly possible that guidance from others not noted above may prove useful to the Special (EX) Committee on Race and Insurance's ongoing discussions.

Again, I appreciate having this opportunity to share thoughts on the important issue of race in the risk selection and classification process for insurance and look forward to working with you as you seek to address important questions that have been raised. If you wish to follow up with us on any of the matters discussed, please contact Khloe Greenwood, the Academy's policy analyst for life, at greenwood@actuary.org or at 202-309-3741.