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**Accelerated Underwriting (A) Working Group**

**Ad Hoc Drafting Subgroup**

**Regulatory Guidance and Considerations**

**Introduction**

The Accelerated Underwriting Working Group (AUWG) was created by the Life Insurance and Annuities (A) Committee at the NAIC 2019 Summer National Meeting. One of the original charges given to the Working Group was to “… consider the use of external data and data analytics in accelerated life underwriting, including consideration of the ongoing work of the Life Actuarial (A) Task Force on the issue and, if appropriate, drafting guidance for the states.”

A significant portion of the AUWG’s work over the last three years benefitted from a multitude of presentations from the life insurance industry, actuarial consulting firms, a machine learning assurance company, and consumer advocate groups. These presentations are summarized in an educational paper adopted by the Life Insurance and Annuities (A) Committee at the NAIC 2022 Spring National Meeting.

The AUWG’s analysis and recommendations for life insurers and regulators included in the educational paper are based on the following definition:

Accelerated underwriting (AU) is the use of big data, artificial intelligence, and machine learning to underwrite life insurance in an expedited manner. The process generally uses predictive models and machine learning algorithms to analyze applicant data, which may include the use of non-traditional, non-medical data, provided either by the applicant directly or obtained through external sources. The process is typically used to replace all or part of traditional underwriting in life insurance and to allow some applicants to have certain medical requirements waived, such as paramedical exams and fluid collection.

The educational paper includes recommendations for insurers and regulators designed to ensure new technologies are utilized by life insurers in ways that comply with existing insurance law. While existing insurance laws vary from state to state, the recommendations acknowledge that most states: 1) require life insurance underwriting to be based on expected losses and expenses; 2) require insurers that collect consumer data to maintain that data in secure systems; and 3) prohibit unfair discrimination in insurance underwriting.

Below, the AUWG presents regulatory guidance for State Departments of Insurance (DOIs) when reviewing accelerated underwriting programs used by life insurers. The regulatory guidance expounds on the recommendations the AUWG made in its educational paper and provides sample questions and areas for review for DOIs.

Also, the AUWG is making a referral to the **Market Conduct Examination Guidelines (D) Working Group of the Market Regulation and Consumer Affairs (D) Committee** with suggested additions to the NAIC’s *Market Regulation Handbook* (MRH) (Attachment A). The AUWG has concluded that it would be beneficial to include additional guidance in the NAIC’s MRH that addresses questions involving accelerated underwriting in life insurance.

Finally, the AUWG understands that there are other NAIC groups working on similar or overlapping issues related to accelerated underwriting. The AUWG plans to coordinate with the following groups:

* **The Big Data and Artificial Intelligence (H) Working Group under the Innovation, Cybersecurity and Technology (H) Committee.**

The Big Data and Artificial Intelligence (H) (BDAI) Working Group has three charges:

1. Research the use of big data and artificial intelligence (AI) including machine learning (ML) in the business of insurance, and evaluate existing regulatory frameworks for overseeing and monitoring their use. Present findings and recommendations to the Innovation, Cybersecurity, and Technology (H) Committee including potential recommendations for development of model governance for the use of big data and AI including ML for the insurance industry.
2. Review current audit and certification programs and/or frameworks that could be used to oversee insurers’ use of consumer and non-insurance data and models using intelligent algorithms including AI and in alignment with the NAIC AI Principles. If appropriate, issue recommendations and coordinate with the appropriate SME committees on the development of or modifications to model laws, regulations, handbooks, and regulatory guidance regarding data analysis, marketing, rating, underwriting and claims, regulation of data and model vendors, regulatory reporting requirements, and consumer disclosure requirements.
3. Assess data and regulatory tools needed for state insurance regulators to appropriately monitor the marketplace, and evaluate the use of big data, algorithms, and ML, including AI/ML in underwriting, rating, claims, and marketing practices This assessment shall include a review of currently available data and tools, as well as recommendations for development of additional data and tools, as appropriate. Based on this assessment, propose a means to include these tools in existing and/or new regulatory oversight and monitoring processes to promote consistent oversight and monitoring efforts across state insurance departments.

To achieve its charges, the BDAI Working Group formed 4 Workstreams:

* **Workstream 1** – focused on surveys of the industry related to their use of AI/ML systems. The survey of the life insurance industry has been piloted with a select few life insurers and the survey is in the final stages of revision and is expected to be sent to all life insurers in first quarter 2023.
* **Workstream 2** - focused on the appropriate regulatory evaluation to produce a recommended regulatory framework for monitoring and overseeing industry’s use of third-party data and model vendors.
* **Workstream 3** – focused on gathering data and evaluating information from sources, including vendors, academics, industry, international supervisory authorities, on governance models/frameworks and software tools/resources, which could assist regulators in overseeing and monitoring industry’s use of data and AI/ML and eliminate unintended bias in such use.
* **Workstream 4** – focused on evaluating how best to implement the expectations outlined in the *NAIC’s Principles on Artificial Intelligence* and provide suggestions on next steps, which could include regulatory guidance or development of a model regulation and report back to the working group and ultimately the H Committee.

In addition, it is clear to the AUWG that additional regulations, model laws, data, processes, and tools are needed for DOIs to appropriately monitor the use of accelerated underwriting programs used by life insurers. Such additional regulations, model laws, data, processes, and tools should include regulating data and vendors that provide external consumer non-traditional, non-medical data and predictive models to insurers. In addition, they should mandate consumer disclosures related to insurers’ use of such data in models using ML algorithms. The AUWG recommends that the Innovation Cybersecurity and Technology (H) Committee include the consideration of these potential regulations, models laws, data processes, and tools as part of its Committee’s work.

The AUWG also believes that its work, including the regulatory guidance below and the referral to the Market Conduct Examination Guidelines (D) Working Group, may be useful to the Workstreams under the Big Data and Artificial Intelligence (H) Working Group.

In addition, the AUWG understands that any work that is completed by the Workstreams under the BDAI Working Group may be useful to incorporate into the regulatory guidance below along with any potential standard(s) developed by the Market Conduct Examination Guidelines (D) Working Group related to accelerated underwriting in life insurance.

* **The Privacy Protections (H) Working Group under the Innovation, Cybersecurity and Technology (H) Committee**

The Privacy Protections (H) Working Group is working on replacing the NAIC’s Insurance Information and Privacy Protection Model Act (#670) and the Privacy of Consumer Financial and Health Information Regulation (#672) with one new model. Although this group is addressing a unique set of issues, it will require coordination, especially with regard to definitions.

**Regulatory Guidance**

Following the adoption of the educational paper, the AUWG continued its work on the second part of its charge: drafting a guidance document for DOIs to use when reviewing accelerated underwriting programs used by life insurers to ensure the programs are fair, transparent, and secure in compliance with existing law.

Making sure that the use of accelerated underwriting is fair to consumers is important because its use impacts both the availability and affordability of life insurance to consumers. Ensuring that insurers use accelerated underwriting in a transparent manner is important because consumers should understand what personal data is being accessed by insurers and how that data is being used. Lastly, insurers accessing sensitive consumer data have a duty to secure that data to protect consumers from the harm of unauthorized disclosure.

The AUWG developed the following regulatory considerations for DOIs when reviewing a life insurer’s use of accelerated underwriting programs:

* Data inputs are transparent, accurate, reliable, and the data itself is evaluated for unfair bias.
* External data sources, algorithms or predictive models are based on sound actuarial principles, including a causal or rational explanation why a rating variable is correlated to expected loss or expense, and why that correlation is consistent with the expected direction of the relationship.[[1]](#footnote-1)
* Predictive models or machine learning algorithm(s) within accelerated underwriting accurately assess and price risk.
* Predictive models or machine learning algorithm(s) achieve an outcome that is not unfairly discriminatory.
* Reason(s) for an adverse underwriting decision are provided to the consumer along with all information upon which the insurer based its adverse underwriting decision.
* The insurer establishes and follows procedures to protect the consumer’s privacy and the consumer’s data.
* The insurer has a mechanism in place to correct mistakes if found in consumer data.
* The insurer will produce information upon request as part of regular filing submission reviews or market conduct examinations.
* The insurer has procedures in place to address the following requirements pertaining to the consumer: Notice Requirements, Opting-Out of Data Sharing, Correcting or Deleting Information, Data Portability, and Restricting the use of Data.

Using these regulatory expectations as a baseline for review, DOIs may:

* Review a life insurer’s initial submission of policy filings to confirm the proper use of data elements.
* Request a life insurer provide and/or file accelerated underwriting data sources, predictive models, and algorithms and/or summaries for analysis.
* Request a life insurer provide additional information and/or explanation about how a particular predictive model or machine learning algorithm is used in an accelerated underwriting program.
* Request a life insurer provide information about source data used as part of its accelerated underwriting programs regardless of whether the data or score is provided by a third party.
* Request a life insurer provide information about its auditing of data sets, predictive models, and machine learning algorithms to ensure they are accurate, reliable, and do not result in unfairly discriminatory outcomes.

The following are examples of questions and requests for information DOIs may want to submit to life insurers when reviewing AU programs:

* What specific external data or information about life insurance applicants is being utilized by the accelerated underwriting program?
* How does the company obtain any external data or information used as part of its life insurance accelerated underwriting program?
* Explain in detail how the company discloses to applicants for life insurance what external information is used in its accelerated underwriting program and how this external information is used in the accelerated underwriting program.
* Ask for a copy of all company disclosures provided to applicants regarding the company’s accelerated underwriting program.
* What process or recourse does the company provide to applicants for life insurance should they receive an adverse underwriting decision?
* What process or recourse does the company provide to applicants for life insurance to correct mistakes in the external data or information?
* How is external data or information about life applicants utilized, stored, and destroyed after the completion of the underwriting process?
* How does the company audit data sets, predictive models, and machine learning algorithms to ensure accuracy, reliability, and outcomes insurance that are not unfairly discriminatory?
* How often does the company perform audits?
* Does the company perform audits internally or does it utilize a third-party to perform independent audits?
* Has the company modified its predictive models or machine learning algorithms, or the data sets used by the models and algorithms, as a result of an audit? If so, what modifications were made and why?
* Ask the company to provide a copy of audit results.
* How does the company ensure that the model(s) it uses are based on sound actuarial principles?
* How does the company address potential unfair discrimination by ensuring that external consumer data’s correlation to risk is not outweighed by any correlation to a protected class(es).

The AUWG offers this guidance to the state DOIs for consideration, while recognizing that there is more work to come. The AUWG anticipates that the work of the other NAIC groups on this topic, including the referral to the Market Conduct Examination Guidelines (D) Working Group and the results of the BDAI Working Group Workstream 1 life insurance survey will lead to additional guidance regarding accelerated underwriting in life insurance.

1. For clarity and consistency, this bullet borrows language from the Casualty Actuarial and Statistical (C) Task Force *Regulatory Review of Predictive Models White Paper* to describe this concept, replacing the language from the Accelerated Underwriting Educational Paper recommendation, which said: “External data sources, algorithms or predictive models are based on sound actuarial principles, including a valid explanation or rationale for any claimed correlation or causal connection.” [↑](#footnote-ref-1)