2026 LIFE INSURANCE AND ANNUITY CONFERENCE

The Power of Promise

3.5 AI-Powered Underwriting:

What's Working and What's Ahead

LIMRA LOMA Society of Actuaries ACLI

Nick Craven

Executive Vice President and Chief Insurance Officer

Primerica

Michael Niemerg

Principal and Director, Data Science

Milliman IntelliScript

Jenna Fariss

Principal and Consulting Actuary

Milliman IntelliScript

Flavors of AI

- **Generative AI / LLMs**

  Generate text, audio, code
  Example: APS record summarization

- **Machine Learning**

  Make predictions from (usually) tabular data – mortality, morbidity
  Example: risk scores

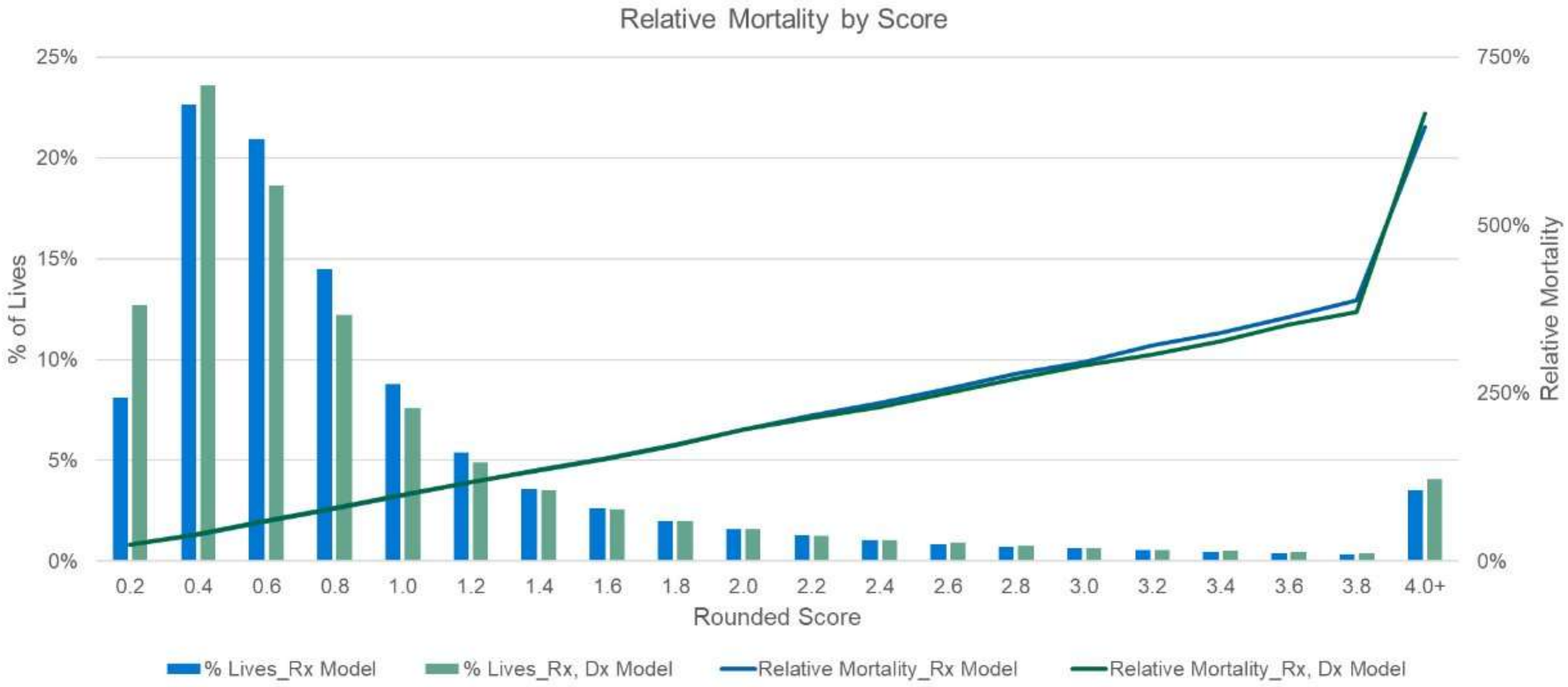
- **Expert systems**

  If-then logic
  Example: rule-based underwriting systems

The Benefits of AI Automation

- Increased Sales
- Efficiency and speed
- Improved mortality results
- Better customer experience
- Improved consistency

Models Can Automate Risk Selection



Sources of Data

- **Application**

  The applicant's self-reported personal, financial, lifestyle, and health information

- **Prescription History**

  The medications the applicant has filled

- **Medical History**

  Diagnoses and procedures from claim forms

- **APS**

  Requested from a treating doctor that provides clinical context, diagnoses, treatment details

- **EHR**

  Digital record of encounters, labs, diagnoses, procedures, and provider notes from healthcare systems

Source: Title, Year.

Underwriting Today

- Intake - app
- Triaging and data ordering
  - Triage with data sources like credit
  - Instant third-party data (medical data, prescription data, MIB, MVR, EHR, criminal history, credit).
- Automated risk triage, interpretation & risk scoring
  - Order APS
  - Rules, mortality/morbidity models
- Evidence & human review
- Decision, Justification, and Communication
- Feedback loop

AI Underwriting Futures

AI could be used as…

- A user interface for the underwriter
- An interface to create, maintain, and use underwriting guidelines
- A structurer of messy data (EHR, APS, Labs) into tabular data with machine learning creates the scores.
- A partially automated decision-maker – case triaging, data ordering, summarization, etc..
- A fully automated decision-makers – reasoning, applying underwriting guidelines, and making an underwriting determination

Future underwriters will be more versatile

- Underwriting will be cheaper and faster – which will increase demand for it
- Underwriters will perform fewer rote tasks and spent devote more time to clinically challenging cases
- Less emphasis on underwriters touching all individual cases, more on managing overarching processes and systems
- Underwriting will be more empirical and data-driven

Deterministic vs Stochastic

- Deterministic: same input always produces same output
- Stochastic: randomness – same input can product different output
- Scorecard
  - Humans - stochastic
  - GenAI - stochastic
  - Machine Learning – deterministic
- LLMs can be inconsistent and irrelevant information can make them do illogical things

AI Governance Program

- AI governance program

  Describe common definitions, controls, documentation, responsibilities, monitoring

- Cross-discipline expertise

  Regulatory, Information Security, Actuarial, Software Engineering, etc.

- Putting it into action

  - Policies and standards - Clear rules for approved uses, accountability, and escalation
  - Model Evidence - Validation, bias testing, explainability, and stated limitations.
  - Human Governance - Overrides, review triggers, and treatment of exceptions.
  - Post-Launch surveillance - Performance, drift, complaints, and remediation actions.

Real World Examples

Underwriting Today – Intake

- **Behavioral insights –** capabilities to understand the activities of the agent or applicant to detect indicators of misrepresentation
  E.g., Capability to detect likely smoker liars within application interface

- **Reflex questions –** enhanced interactions enabling clearer understanding of application inputs for intelligent data ordering
  E.g., Capability to initiate reflex questions to update application for omitted medicine detected in prescription data

Underwriting Today – Data Ordering

- **Enhanced data sources –** real-time data sources leveraging machine learning trained models to provide predictive insights
  E.g., Utilizing third-party risk scoring data sources informed by AI trained models

- **Intelligent data gathering –** capabilities to triage, sequence and optimize data source ordering for cost and mortality
  E.g., Prioritizing lower-cost data sources to inform need and sequence of subsequent data sources

Underwriting Today – Risk Triage

- **Rules engines –** expanding automated decision engine capabilities beyond algorithmic decisions
  E.g., Embedded machine learning models within rules engines driving automated decisioning

- **Predictive modeling –** supplementing traditional data sources with models to better and more rapidly assess and stratify risk
  E.g., Utilizing third-party Risk Score products to triage risk

Underwriting Today – Evidence Review

- **Evidence summarization –** empowering underwriters with consistent, concise summaries of complex evidence
  E.g., Employing AI powered APS summarization capabilities

- **GenAI tools –** enhanced underwriter efficiency empowered by corporately available GenAI tools for productivity
  E.g., Leveraging CoPilot to review and summarize multiple discreet data sources

Underwriting Today – Decisioning

- **Guideline chatbots –** GenAI interfaces to interact with underwriting guidelines
  E.g., Training chat bots on company specific underwriting guidelines and procedures

- **Underwriter assistant –** automated underwriting capability to inform and guide underwriter decisions
  E.g., Capability to recommend or review risk classification, and rationale, to aid underwriting quality

Underwriting Today – Feedback

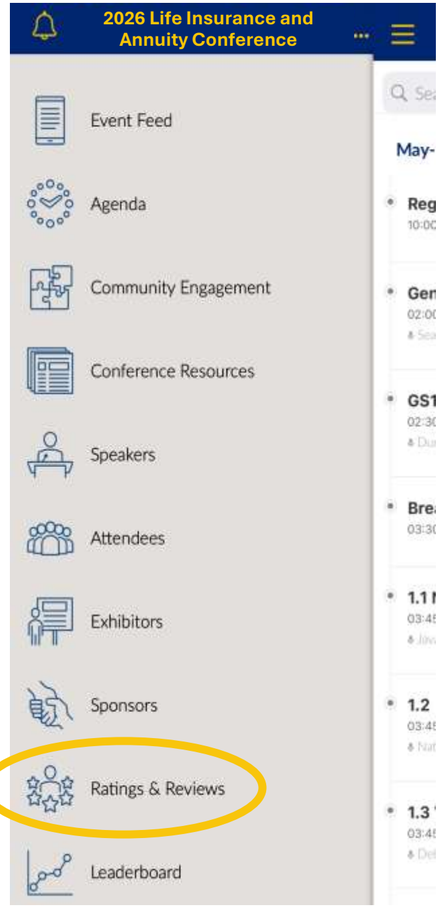
- **Post-Issue Audit –** capability to automate and expand underwriting monitoring capabilities
  E.g., Conducting automated reviews of underwriting cases for quality and training purposes

- **Experience analysis –** improved ability to conduct studies and meaningfully analyze data
  E.g., Utilizing machine learning and large language models to analyze and predict mortality ex

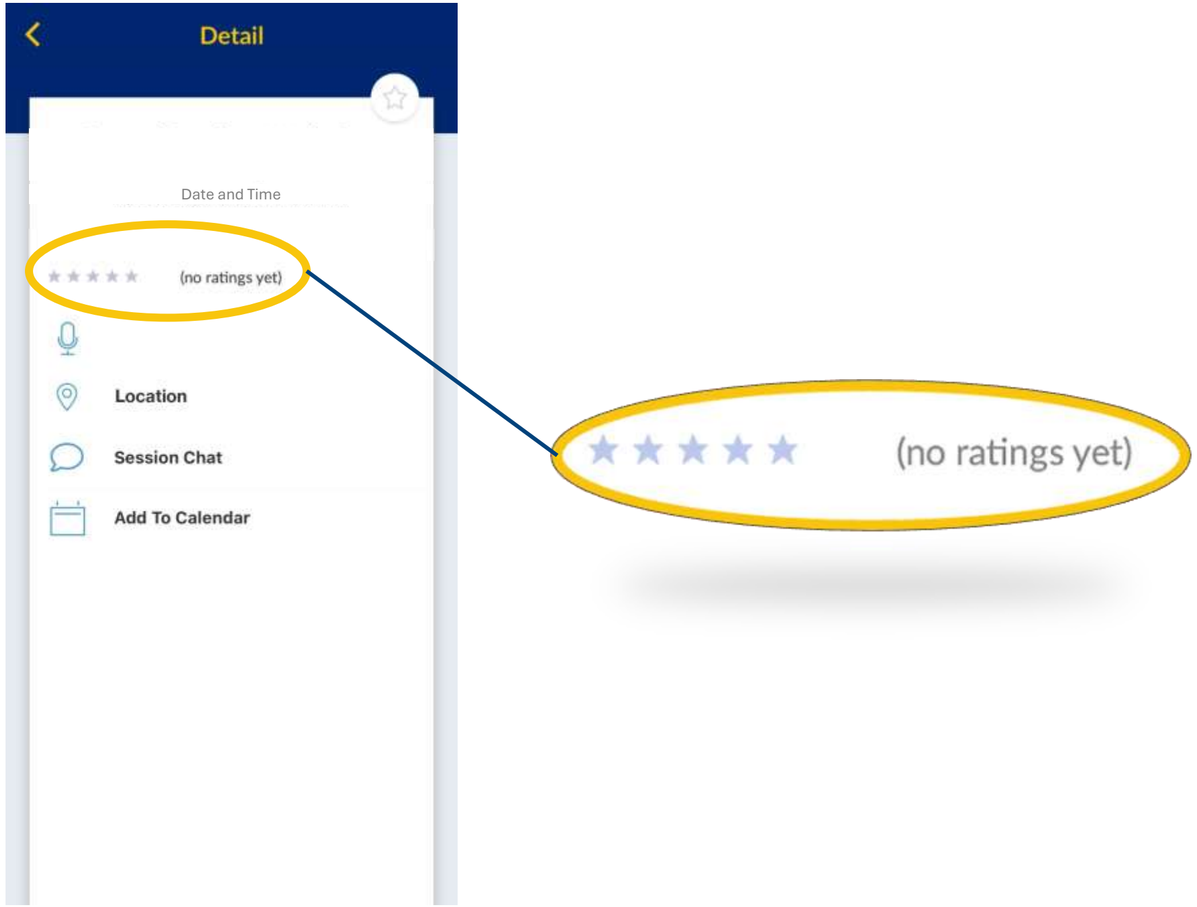
Questions?

We Value Your Feedback — Share It in the Conference App

Module Option



Agenda Option



Thank You

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