Accelerated Underwriting: Pricing and Risk Monitoring

Samantha Hawson, FSA, MAAA

Vice President and Pricing Actuary

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Agenda

- Background on iptiQ
- Overview of Design and Pricing Considerations
- Underwriting and Product Design
- Predictive Analytics Data Sources
- Pricing Assumptions
- Mortality
- Risk Monitoring
- Experience Monitoring
- Conclusion

Note: the information is in this presentation is general information and is not specific to iptiQ, Swiss Re or any other companies.

What is iptiQ?

- iptiQ is a subsidiary of Swiss Re, under the Life Capital department.

- iptiQ Americas is a B2B2C Insurer, providing Life and Health products through Lumico Life Insurance Company, owned by Swiss Re. Products include: Term, Final Expense, Whole Life, Accidental Death and Med Supp.

- iptiQ aims to close the protection gap in the U.S., estimated to be over $26T.

- iptiQ partners with companies to better serve middle market consumers using our state-of-the-art E2E omni-channel insurance platform.

- One-stop-shop solution faster to market, customizable, delivers better results.

- Provides flexible and modular B2B2C platform that companies can customize to their business needs, along with cost-effective policy maintenance.

- End-to-end omni-channel includes a quote, needs assessment, e-app and agent/customer portals. Enabled by data-driven underwriting, progressive technology and integrated data.

- Sophisticated data systems simplify and speed up Underwriting process, provides automated instant-decision underwriting for applicants who qualify.

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Pricing and Design Considerations

- The other two panelists discussed how to implement Accelerated Underwriting (AUW) and what is entailed to build an AUW model.

- Product design and pricing then needs to be updated to reflect AUW.

- Important product design and pricing considerations:
  - Which products will include AUW.
  - AUW age and face availability.
  - Underwriting guidelines/model and time to policy issuance.
  - Market consistency and competition are important factors.
  - Expected % to qualify for auto-decision.
  - Pricing Assumptions will be impacted by AUW.
  - Pricing must reflect AUW.
  - Discuss with consultants or reinsurers to leverage experience.
  - Supplement application info with alternative data sources and behavioural components in lieu of traditional underwriting.

Underwriting and Product Design

- Collaboration with underwriting department on UW methods used.
- Different products available for AUW in conjunction with traditional methods to measure different aspects: behavioral vs Traditional methods.
- Balance speed of policy issuance with accurate risk classification.
- Time to policy issuance: instant decision (< 1hour) or a few days.
- May want to limit AUW to lower face/younger ages, reduce risk exposure.
- Certain products may be better suited for AUW (e.g. Term).

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Predictive Analytics Data Sources

- Much discussion in the industry on available data to use for AUW.

- Ultimate goal: to find AUW methods and use predictive analytics for effective risk classification that is as accurate as full underwriting.

- Most companies use traditional data sources: MIB, MVR, Rx, along with Application info.   May include PHI and Background Checks.

- Companies are exploring other types of data that are tied to lifestyle: Credit and other risk score types of data, health and fitness.

- Future: Need to partner with regulators to determine appropriate level of risk selection vs. discrimination. Consider the following data sources: Social Media, Genetic Testing, Facial Analytics.

- Predictive Risk Model should be used in Pricing. The methods used will impact the mortality and other assumptions.
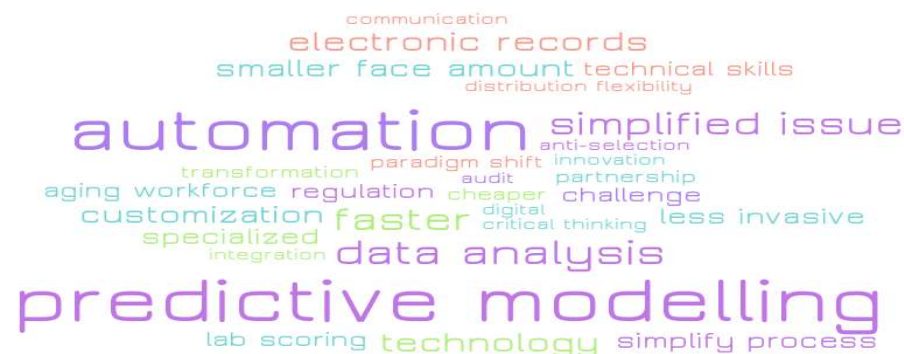
Pricing Assumptions

- AUW must be factored into assumptions:
  - Mortality q_x
  - Underwriting Expenses
  - Lapse rates w_x
  - Business mix

- Sources: industry data, consultants and reinsurance experience.

- Debate around impact of AUW as seen from industry studies.

- AUW generally results in expense savings but mortality will be impacted. − perform cost-benefit analysis of UW savings vs. higher mortality.

- Mortality assumption depends on AUW data sources and thresholds.

- Underwriting Expenses should reflect additional data sources used.

- Referrals to manual underwriting have higher expenses than AUW.

- Lapse Rates may vary for AUW segments:
  - Better sales experience for buying life insurance, non-invasive.

- Business Mix may be impacted - risk class, age, bands, etc.

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Mortality Assumption

- Mortality experience is generally based on traditional full underwriting.
- Full UW: paramed exam with blood/urine/oral fluids, Rx/MVR/MIB.
- Need to reflect mortality expectation under AUW program.
- Acc UW: No fluids; use Rx/MVR/MIB, predictive model triage approach.
- SI UW: No fluids; Rx/MVR/MIB, generally NS/SM → Highest mortality.
- Acc UW mortality should be closer to Full UW than SI UW using Predictive Analytics model triage approach.
- Acc UW mortality factors reflect:
  - ➢ Expected % qualifying for AUW
  - ➢ Data sources used and thresholds for Predictive Model
  - ➢ Risk Assessment approach, e.g. triage to differentiate Pref classes.
  - ➢ How product is marketed and distributed, Age and face amount limits
  - ➢ Probability applicant omitting Smoking or Medical History
  - ➢ Criteria for referrals for full UW
  - ➢ Application process: reflexive questions, TeleApp/PHI

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Risk Monitoring

- Not all AUW programs and products are the same; risk monitoring is key.
- Important to identify risks involved with AUW and monitor accordingly.
- Establish monitoring process on frequent basis (e.g. quarterly or annual)
- Monitor claims for AUW vs. non-AUW. Investigate claim-by-claim basis.
- Conduct underwriting audits to compare AUW and fully UW classes:
  - Random Hold-Outs: randomly pull AUW cases for full UW.
  - Post-Issue: obtain UW info (e.g. APS) to determine any risk class discrepancies.
- Track % qualifying for AUW (# AUW cases/# eligible cases).
- Track cycle times, drop-out/not-taken/free-look and take rates.
- Track auto-decisioned cases: auto-approved and auto-declined.
- Track manual UW cases: approvals/declines and why referred for full UW.
- Key stakeholders: Actuaries, Senior Management, Reinsurers, etc.
- Report areas of concern and look at areas that can expand AUW.

Experience Monitoring

- Monitoring needed to track actual vs. expected assumptions. Important to understand early results and make adjustments as needed.

- Lack of credibility for new AUW program with limited experience.

- Tracking mortality experience needed to validate mortality assumptions.

- Review mortality experience for actual vs. expected.

- Contestability period for Life products alleviates early claims risk. Expect more claims after year 2. Non-disclosure of smoking, impairments, etc.

- Monitor underwriting expenses: higher/lower than expected. Drop-out and not-taken rates increase expenses and should be monitored as well.

- Track lapse rates to monitor Actual to Expected results for AUW.

- Monitor experience by product, duration and policy characteristics: age, sex, class, band, etc. Look at trends by agent/distribution channel.

- Catching issues early can result in implementing corrective actions into app and UW process, and modifying assumptions or Pricing as needed.

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Summary: AUW Control Cycle

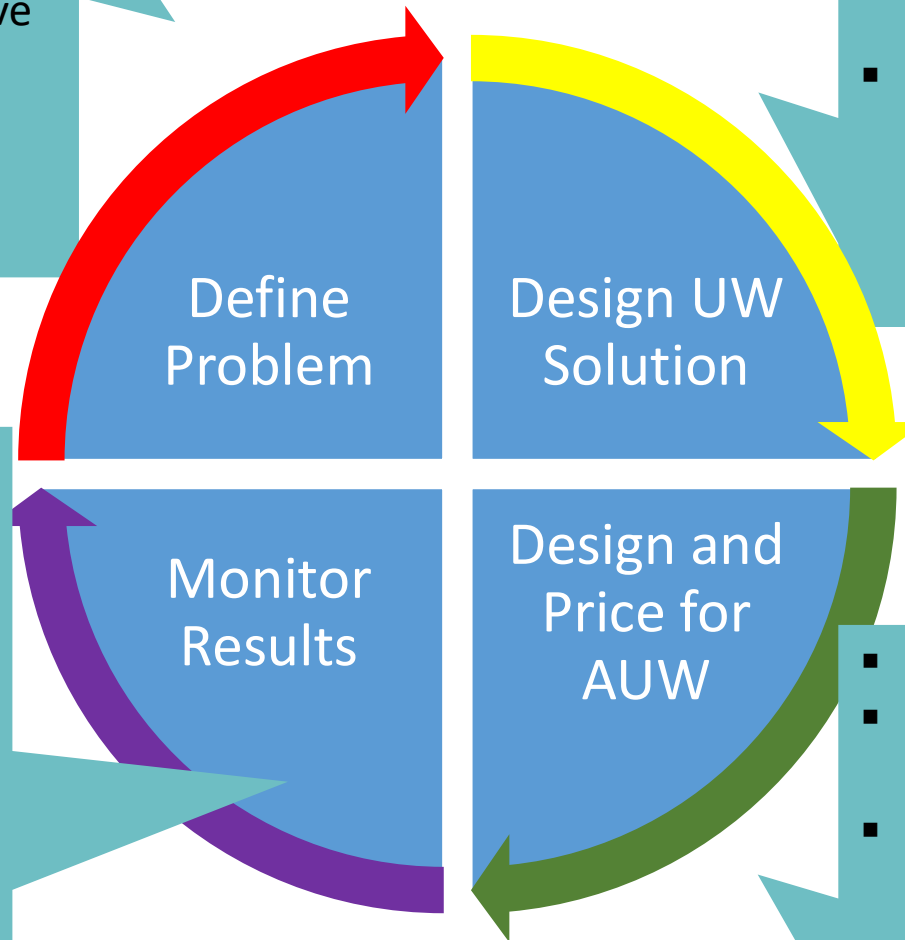How to reduce UW time while achieving full UW outcomes?
- ○ Uncertain future cash flows
- ○ Modeling (AUW predictive models, actuarial pricing models)
- ○ Actuary responsible for monitoring

Replace medical exams with:
- ■ Data sources
  - ○ Current uses
  - ○ Actuarial implications
- ■ Predictive models
  - ○ Modeling lifecycle
  - ○ Model types: regression vs. classification
  - ○ Evaluation metrics

- ■ Identify/monitor risks.
- ■ Track AUW metrics.
- ■ Monitor A/E mortality, lapses, expenses and mix.
- ■ Conduct UW audits.
- ■ Report issues.
- ■ Implement corrective actions in app/UW, update assumptions/Pricing.

Define Problem

Design UW Solution

Monitor Results

Design and Price for AUW

- ■ Product/age/face for AUW.
- ■ Consider Market consistency and competition.
- ■ Set Pricing Assumptions for AUW: Mortality, Lapse, UW Exp, Mix - consult reinsurers.
- ■ Predictive Risk Model should be used in Pricing.

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Questions?

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