

# Accelerated Underwriting The Future is Now!

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# Topics for today



Accelerated underwriting overview



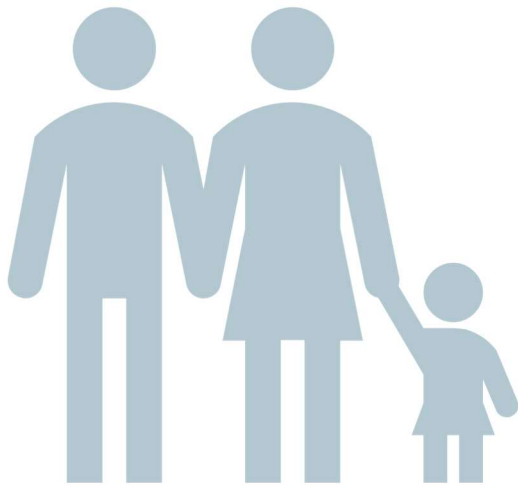
Trends



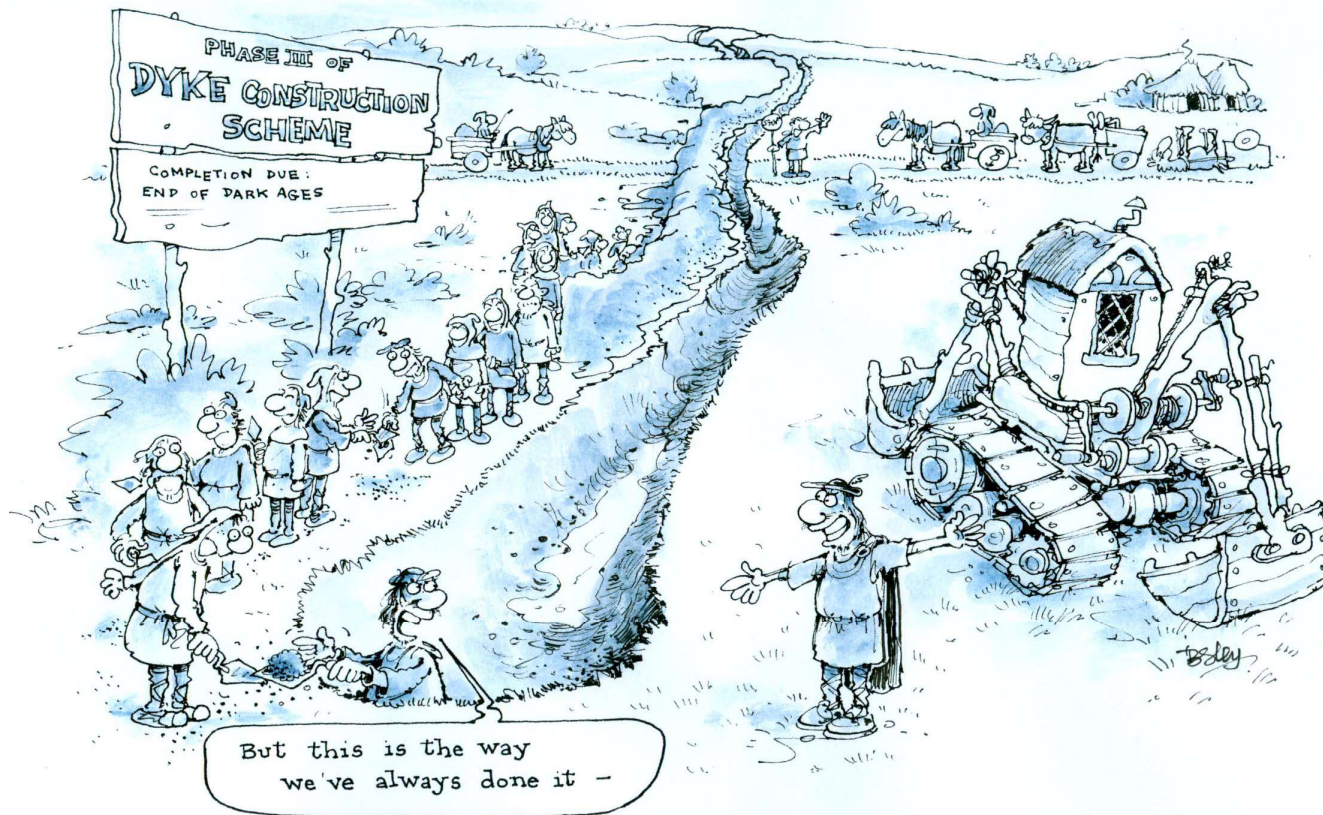
Pricing considerations

# Accelerated Underwriting

Waiving of traditional underwriting requirements for a subset of applicants that meet favorable risk requirements



Why?





## Expansion into middle market

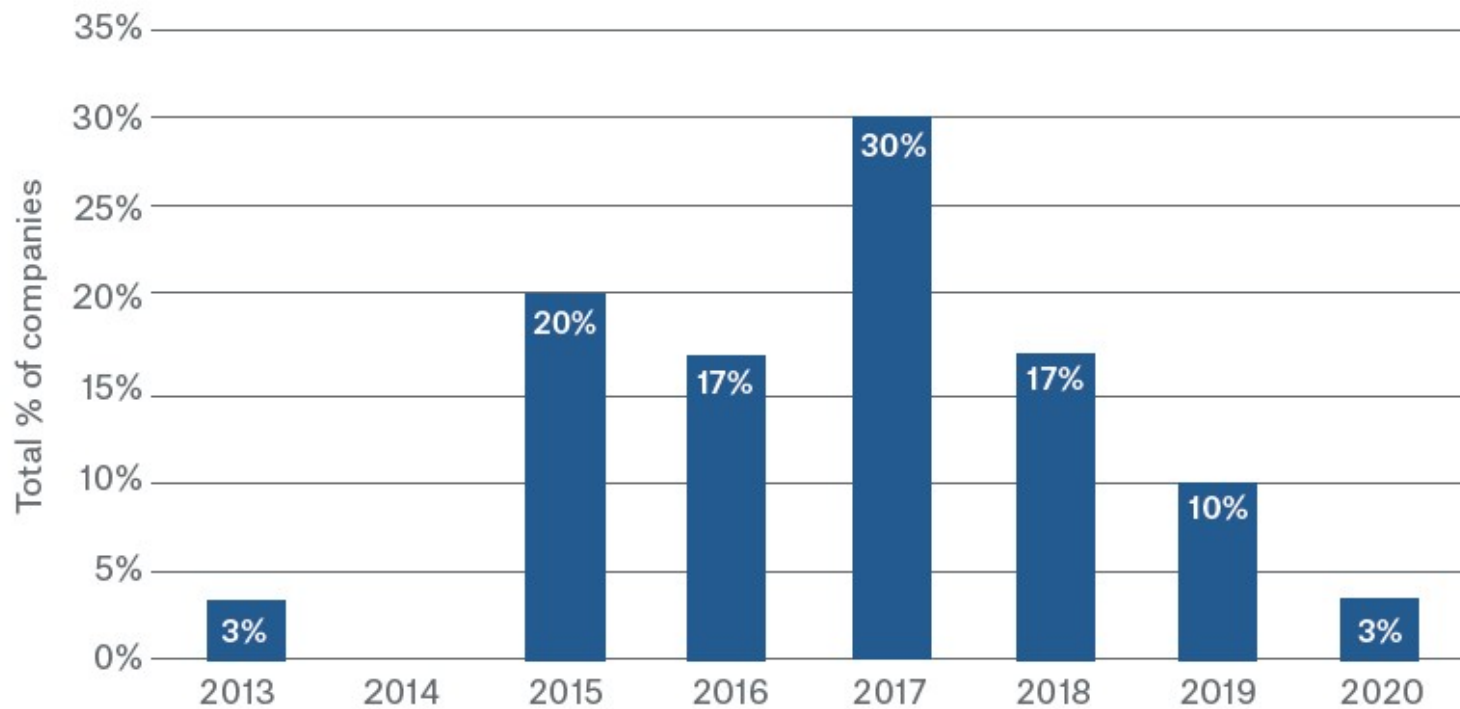


# How?



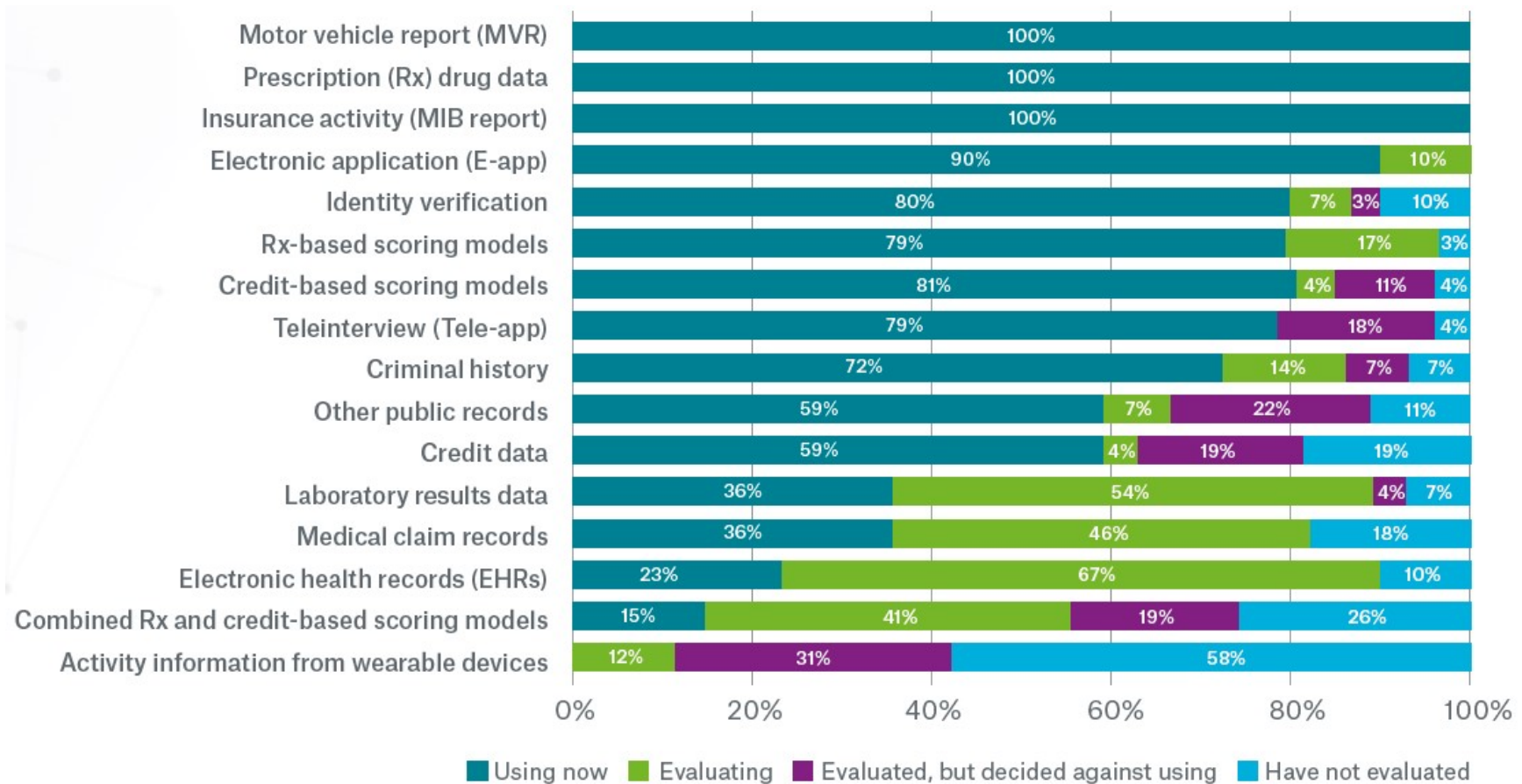
# Trends

# Accelerated underwriting program implementation

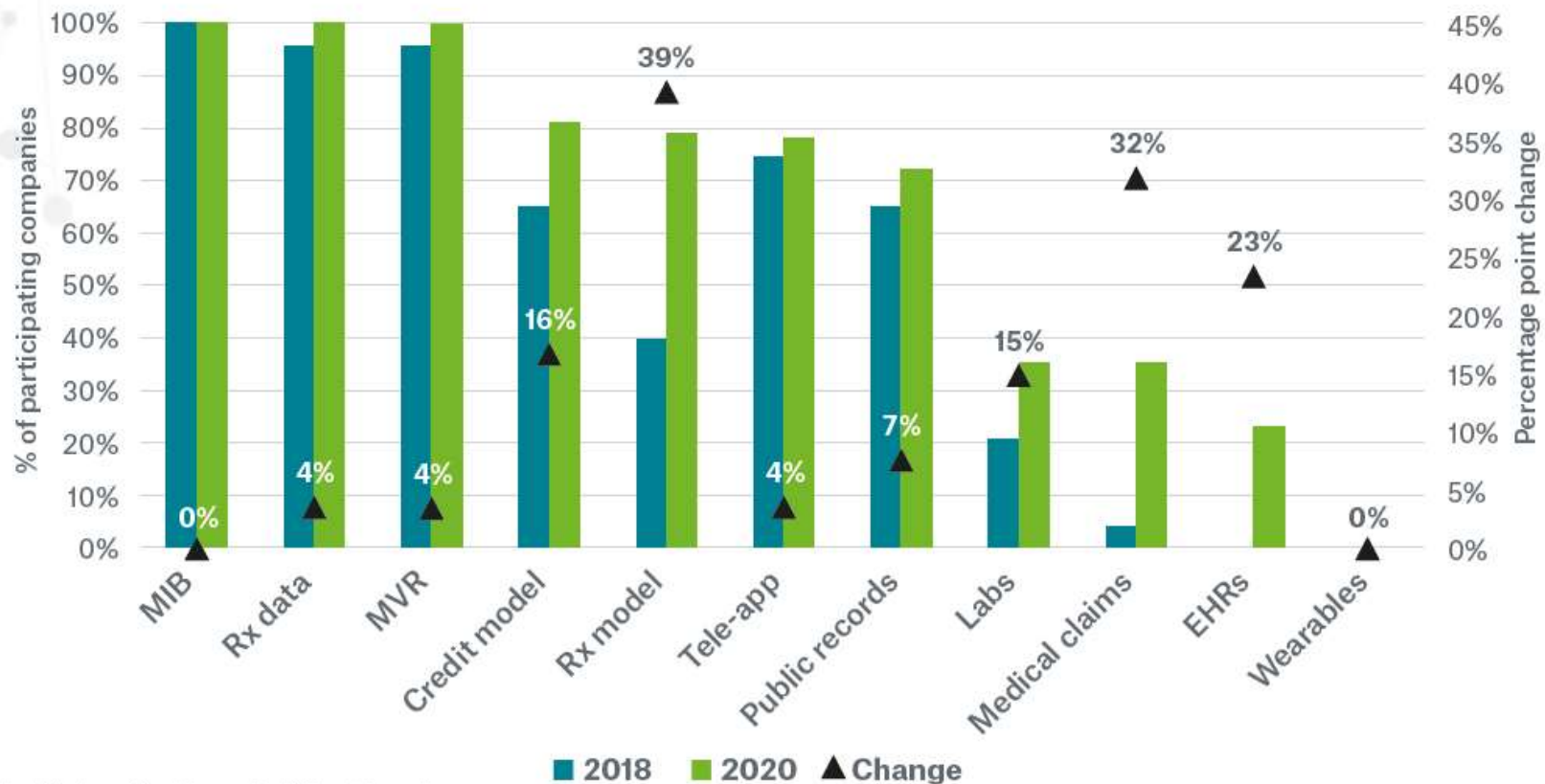




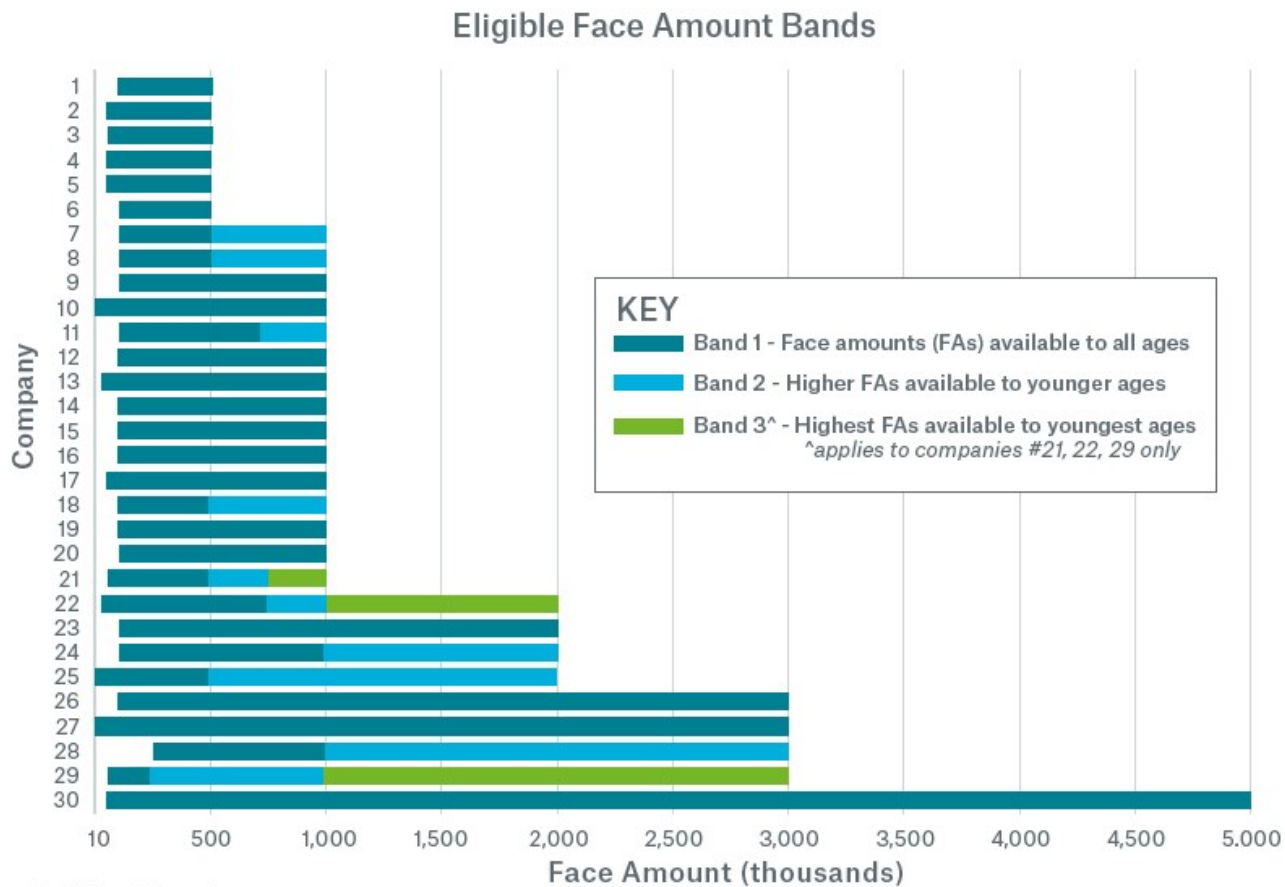
# Accelerated underwriting tool usage



# Underwriting tools “in use” comparison over time



# Eligible face amount parameters by company



# Future underwriting requirements?

What can wearable technology tell us?



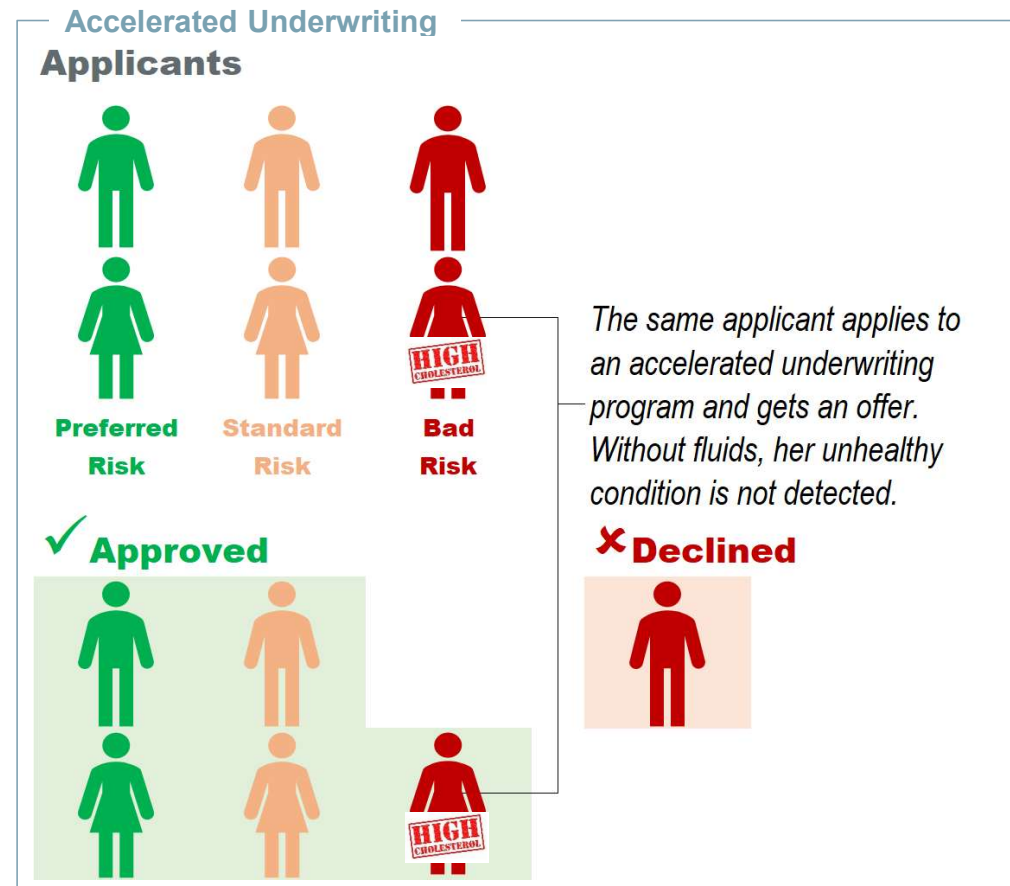
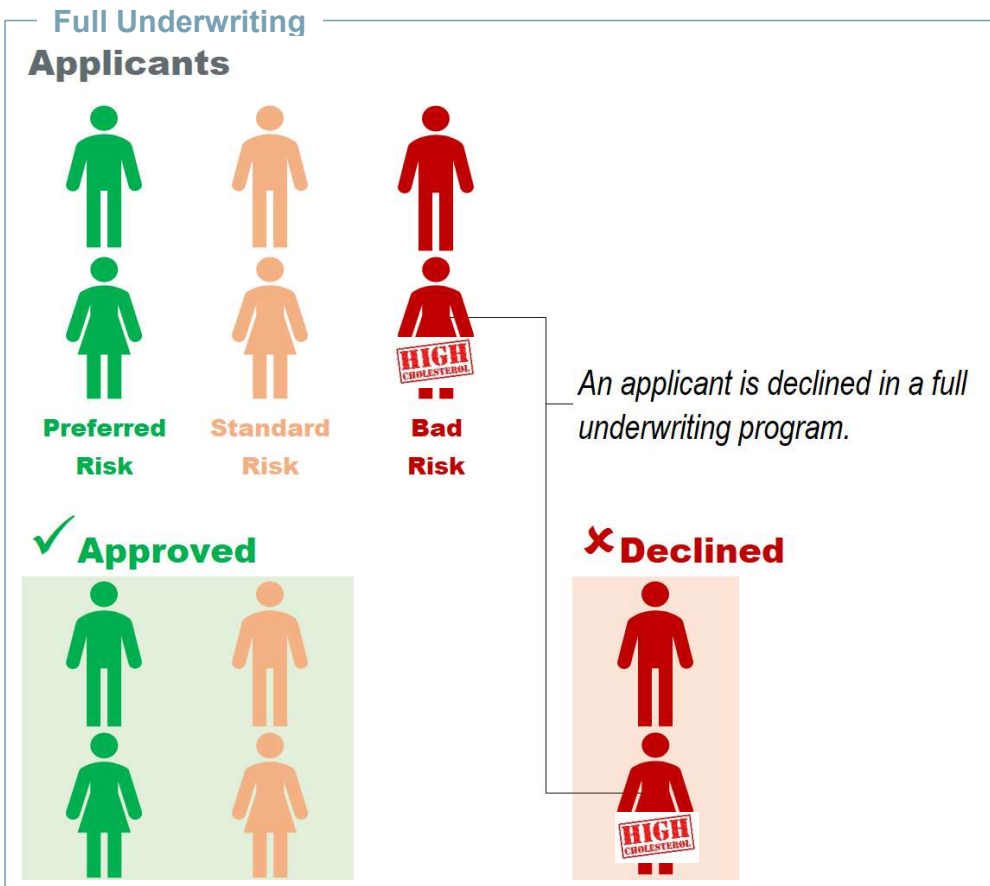
- Sleep patterns
- Oxygen levels
- Atrial Fibrillation
- Blood pressure
- Heart rate variability
- Steps per day

# Pricing considerations

Impact on mortality and assumption development

# Accelerated Underwriting: Loss of Fluids

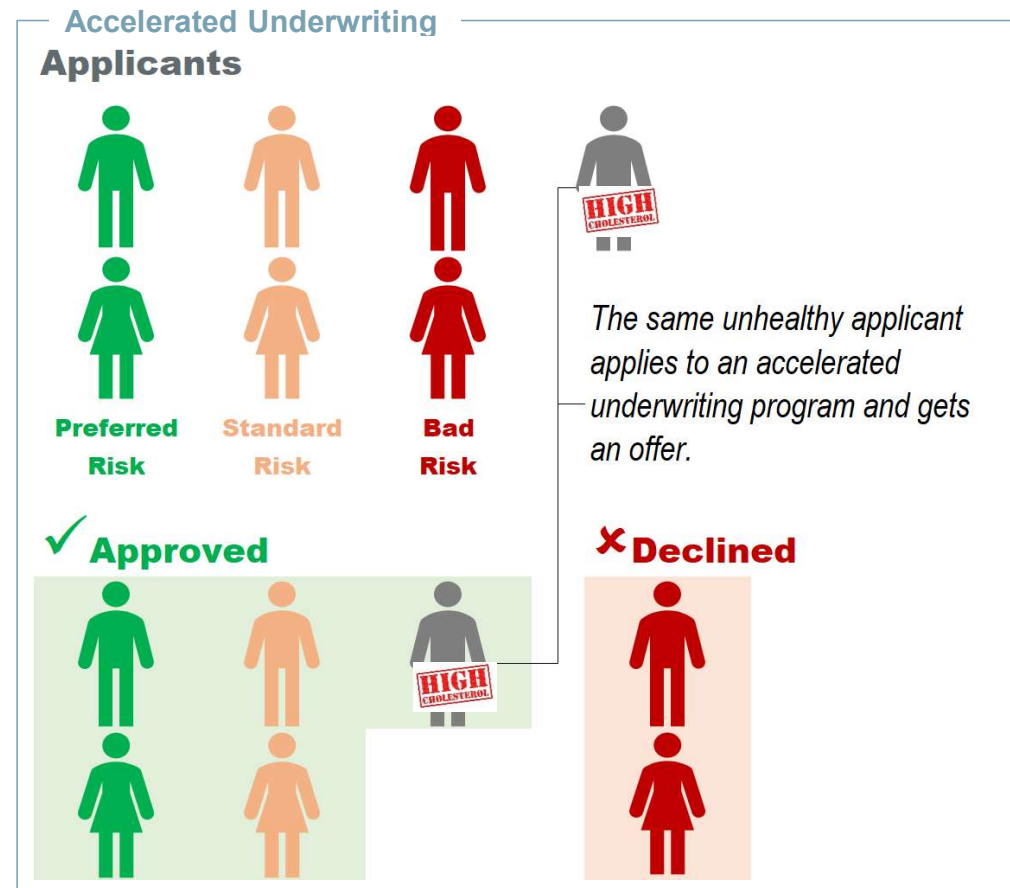
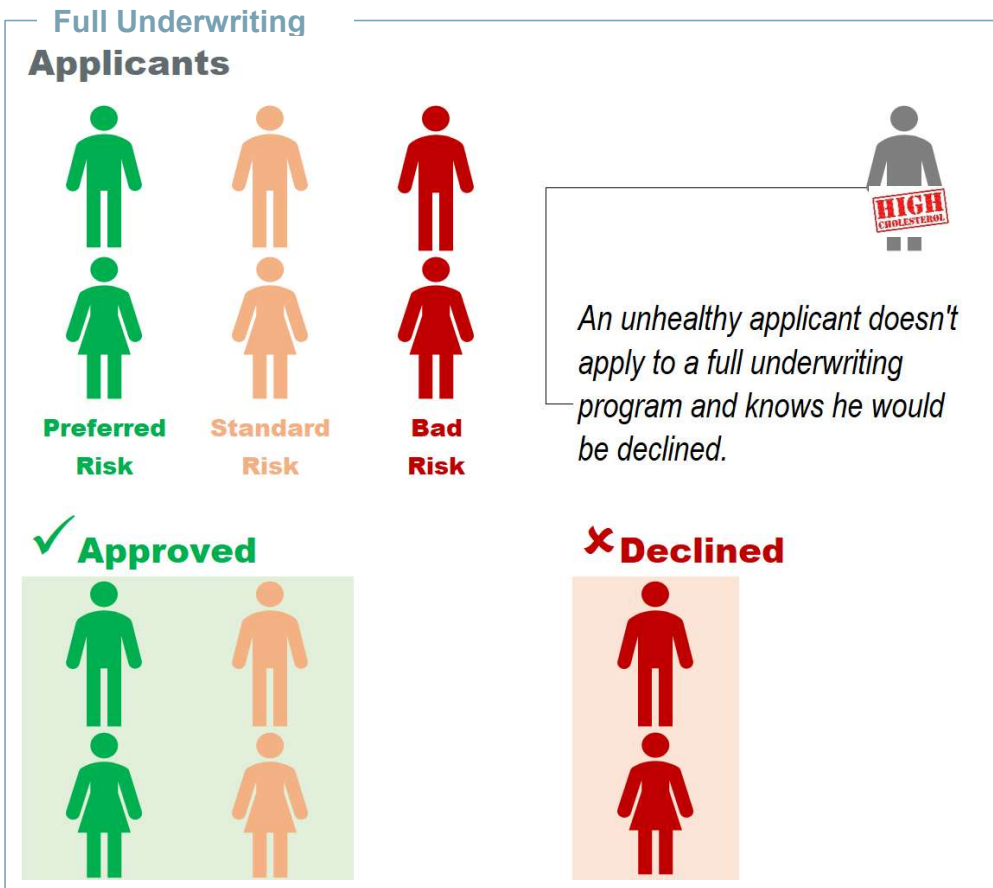
Applicants who would be declined or rated in a full underwriting program might be given a standard or better offer in an accelerated underwriting program.





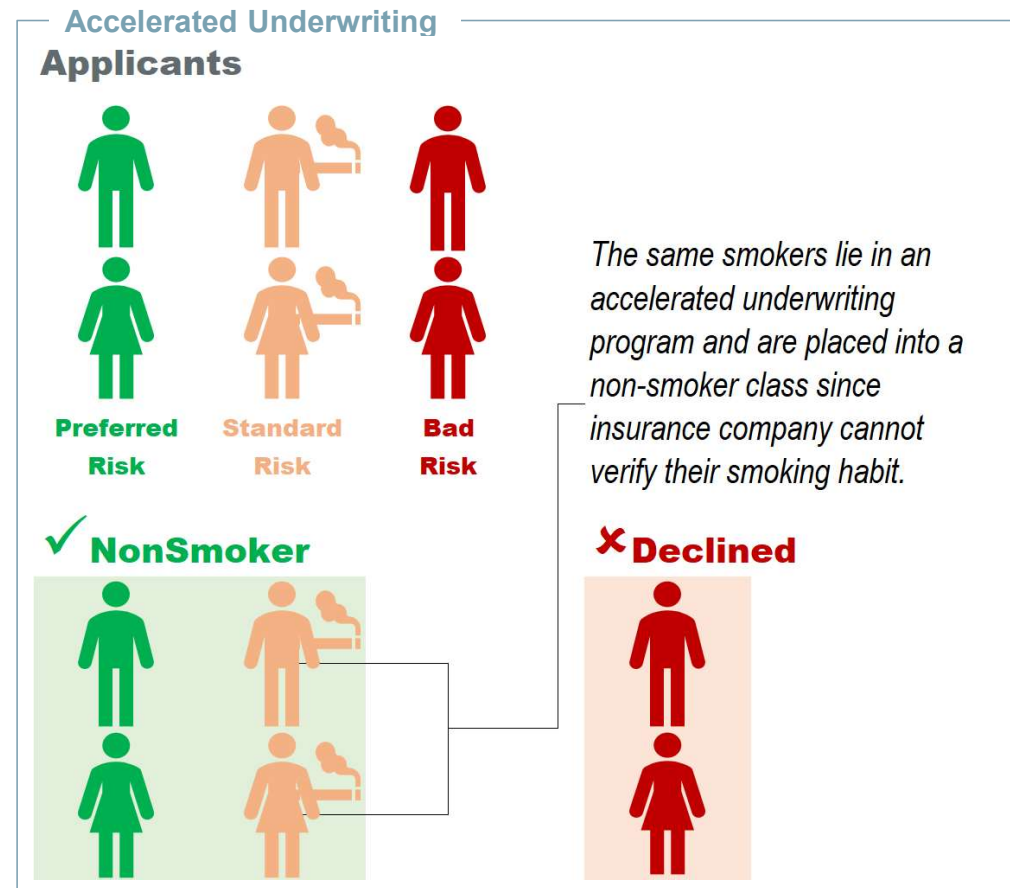
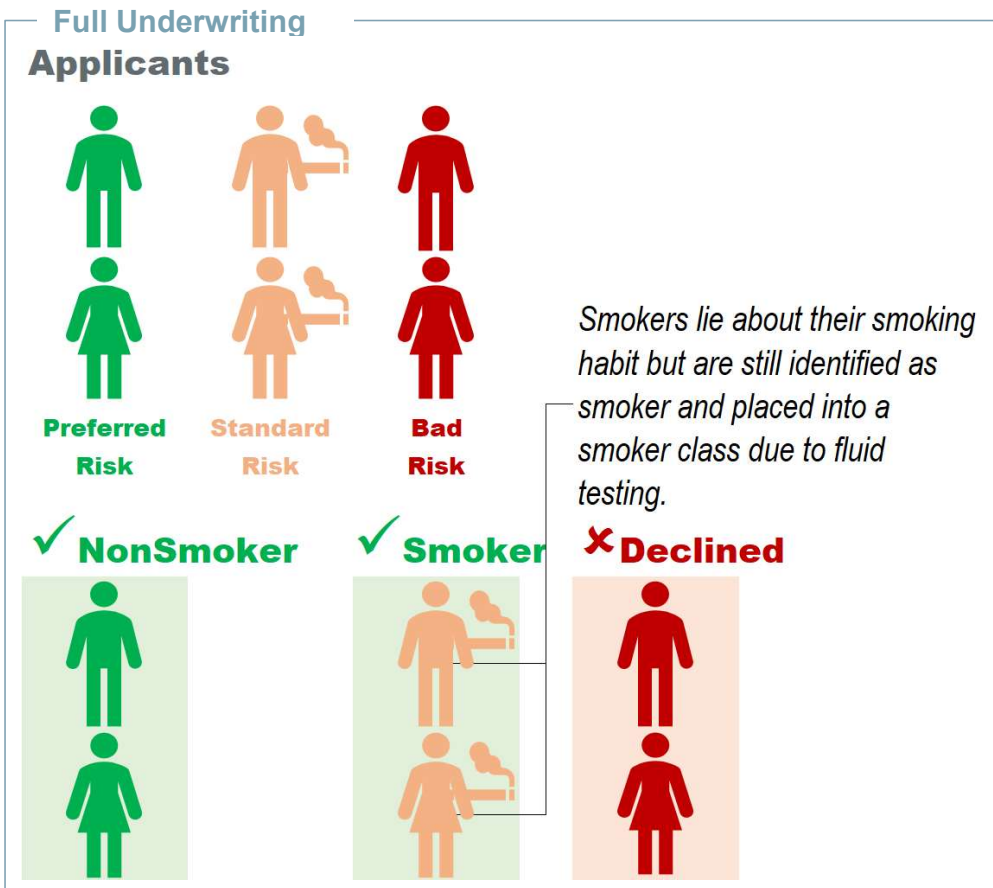
# Accelerated Underwriting: Loss of the Sentinel Effect

*A fluidless underwriting process attracts applicants because invasive underwriting procedures can be avoided. However, it exposes insurance companies to anti-selection.*



# Accelerated Underwriting: Smoker Misrepresentation

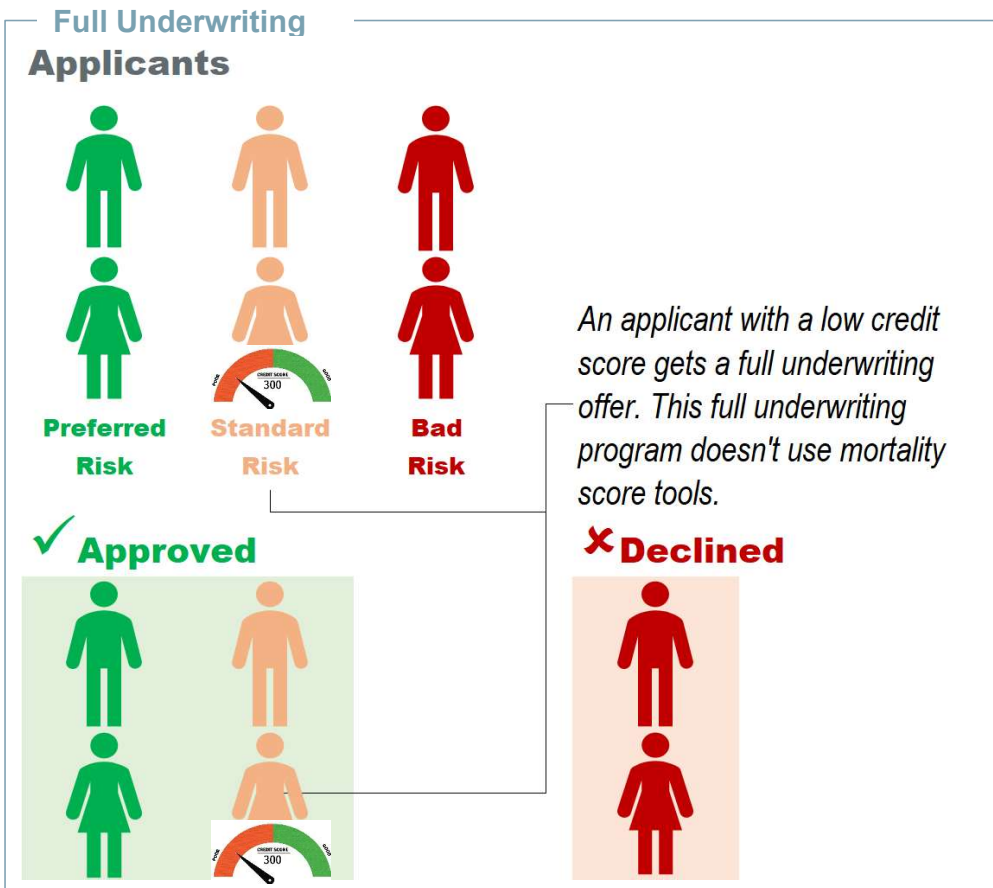
Without fluids, insurance companies cannot verify applicants' smoking habit. Smokers who misrepresent their smoking habit can get into non-smoker classes.



# Accelerated Underwriting: Mortality Scoring Tool

Mortality scoring tools have shown to significantly segment mortality, and some do so in a way that is largely uncorrelated with the protective value of medical underwriting.

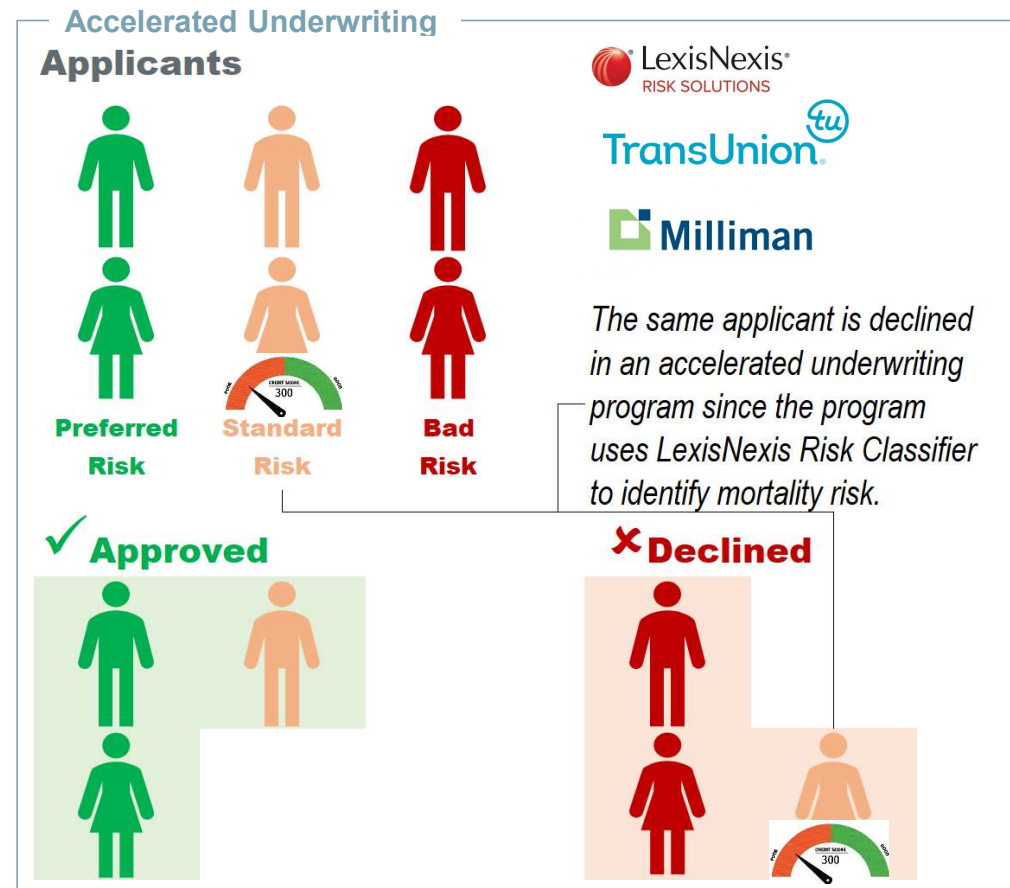
### Full Underwriting Applicants



The diagram shows three columns of risk levels: Preferred Risk (green), Standard Risk (orange), and Bad Risk (red). Each column has a male and female icon. A credit score gauge is shown below the Standard Risk icons, with the needle pointing to a low score. Below the Preferred Risk icons, a green box labeled 'Approved' contains the icons. Below the Bad Risk icons, a red box labeled 'Declined' contains the icons. A line connects the Standard Risk icons to the 'Declined' box.

An applicant with a low credit score gets a full underwriting offer. This full underwriting program doesn't use mortality score tools.

### Accelerated Underwriting Applicants

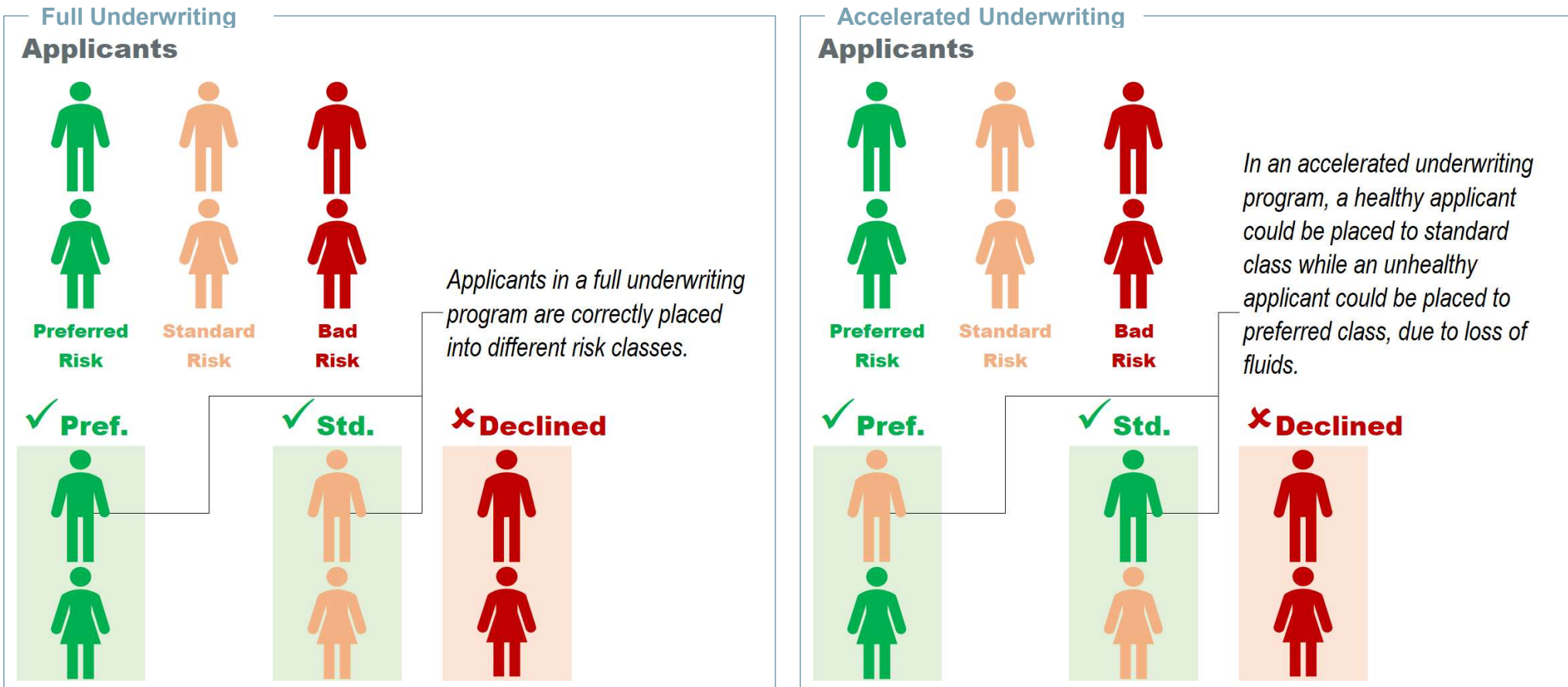


The diagram shows three columns of risk levels: Preferred Risk (green), Standard Risk (orange), and Bad Risk (red). Each column has a male and female icon. A credit score gauge is shown below the Standard Risk icons, with the needle pointing to a low score. Logos for LexisNexis Risk Solutions, TransUnion, and Milliman are displayed. Below the Preferred Risk icons, a green box labeled 'Approved' contains the icons. Below the Bad Risk icons, a red box labeled 'Declined' contains the icons. A line connects the Standard Risk icons to the 'Declined' box.

The same applicant is declined in an accelerated underwriting program since the program uses LexisNexis Risk Classifier to identify mortality risk.

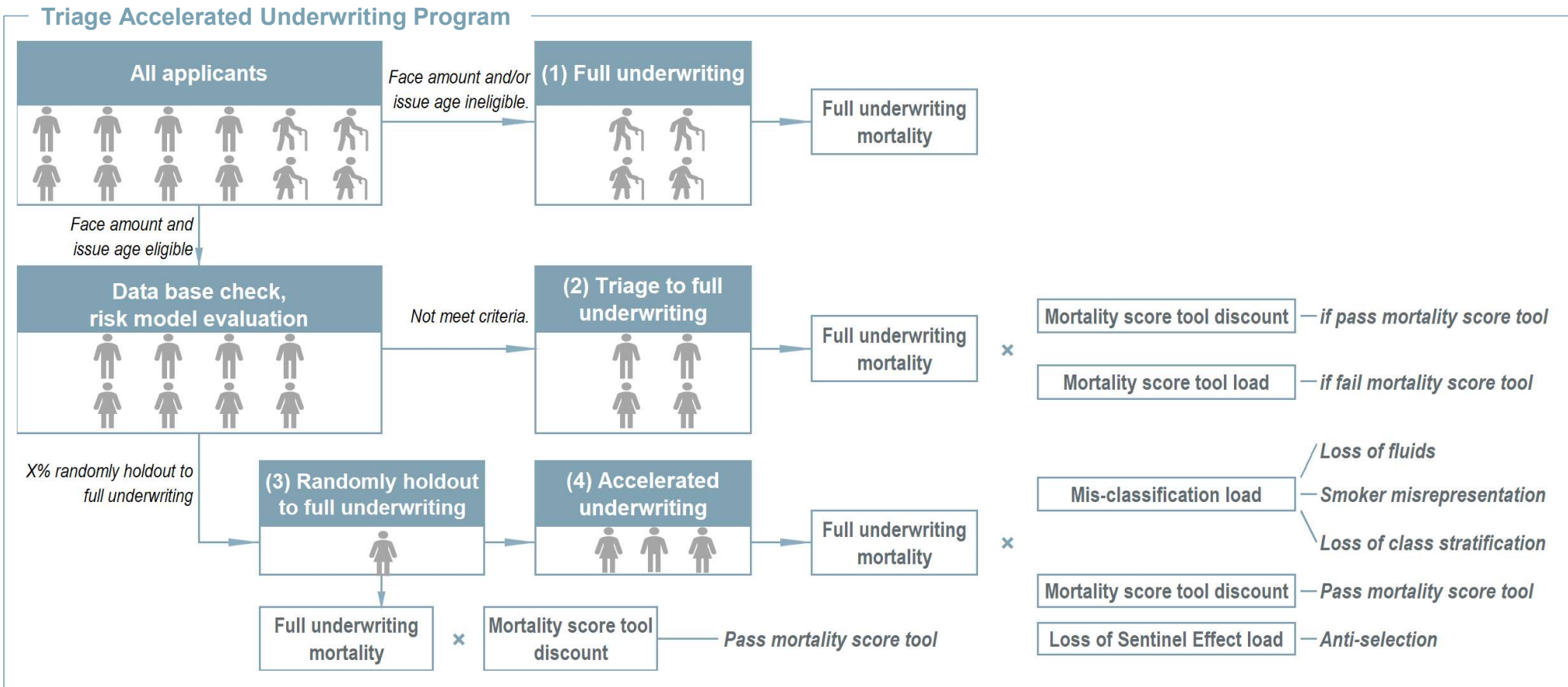
# Accelerated Underwriting: Loss of Class Stratification

Without fluid testing, insurance companies have less information to stratify risks, resulting in a loss of overall differentiation of risk.



# Accelerated Underwriting Mortality: Overview

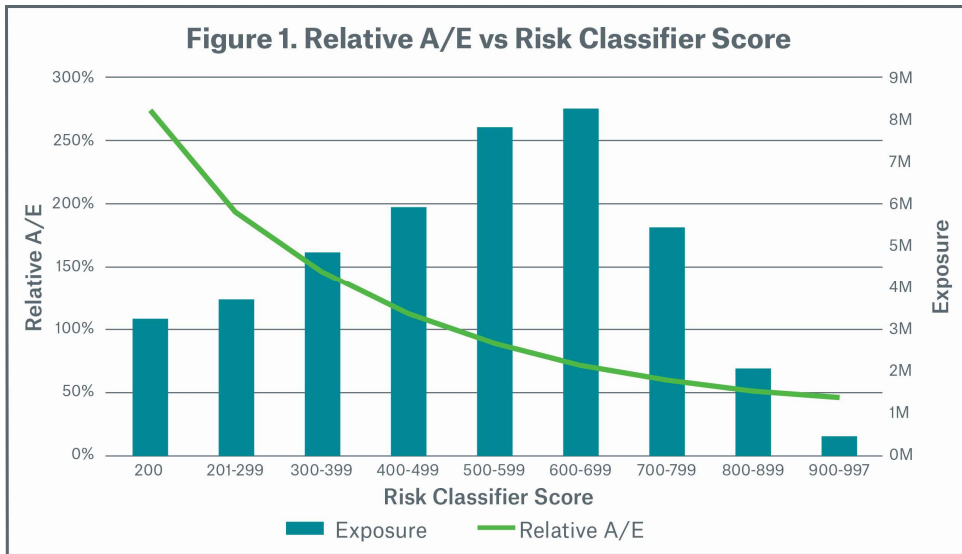
Under a triage accelerated underwriting program, mortality assumptions vary by paths. Without credible experience, accelerated underwriting mortality assumptions are developed as additional mortality loads applied to full underwriting mortality assumptions.



# Accelerated Underwriting Mortality: Mortality Score Tool

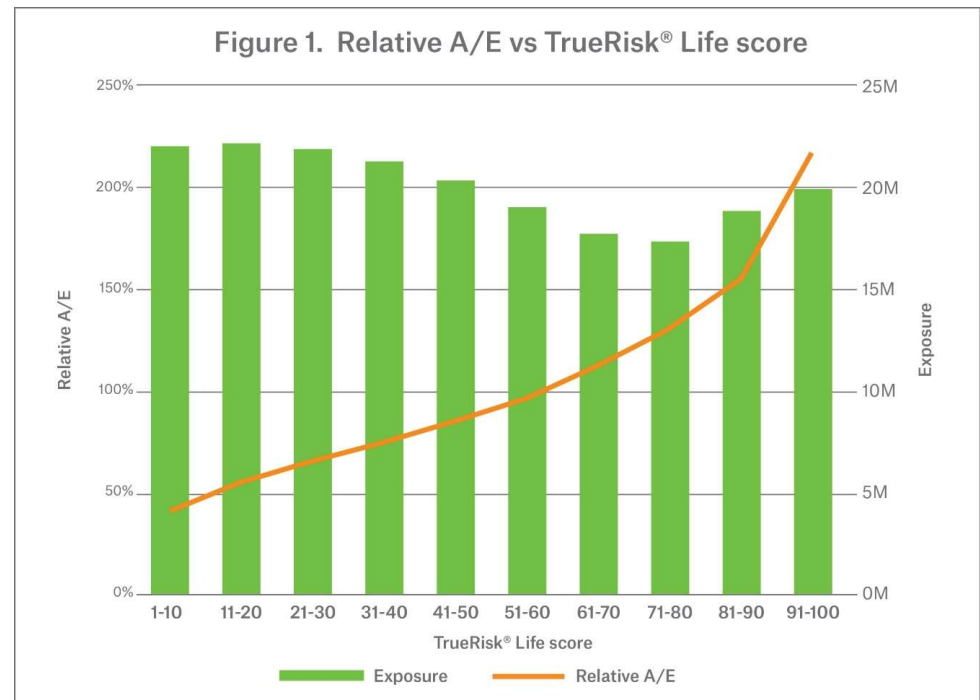
Mortality score tools could triage applicants to accelerated or full underwriting depending on whether applicants pass or fail certain threshold. The discount or load could be developed using a retro study and the conservation of death principle.

 **Risk Classifier**



<https://www.munichre.com/us-life/en/perspectives/alternatives-for-stratifying-mortality-risk/lexis-nexis-risk-classifier-alternative-data-sources.html>

 **TrueRisk Life Score**



<https://www.munichre.com/us-life/en/perspectives/alternatives-for-stratifying-mortality-risk/true-risk-life-score-using-credit-information.html>



# Accelerated Underwriting Mortality: Misclassification

Accelerated underwriting mortality can be evaluated using a mis-classification matrix based on random holdout data or a retro study. Accelerated underwriting programs lack of class stratification, thus varying mortality load by risk class is necessary.

## Mis-classification Matrix

		Full Underwriting Risk Class			
		Preferred	Select	Standard	Decline
Accelerated Underwriting Risk Class	Preferred	520	69	26	20
	Select	30	300	26	8
	Standard	20	23	150	5

"Reverse" misclassification means accelerated underwriting offers a worse class than full underwriting. Actuarial judgement is needed to evaluate whether "reverse" misclassified applicants would take or decline the accelerated underwriting offer and adjust the misclassification matrix accordingly.

Accelerated underwriting issues policies to applicants who would be declined under full underwriting. This is the key driver of mortality load.

## Mortality Load

Risk Class	FUW		AUW		Loads to FUW Mortality
	Mortality	Distribution	Mortality	Distribution	
Preferred	70%	48%	86%	53%	23%
Select	85%	33%	94%	30%	11%
Standard	100%	17%	105%	17%	5%
Decline	500%	3%			
<b>Total</b>	<b>92%</b>	<b>100%</b>	<b>92%</b>	<b>100%</b>	<b>15%</b>

Without information from fluids, companies have less information to stratify risks. It is expected accelerated underwriting mortality load would be higher for preferred class. Pricing should differentiate the mortality load by risk class and capture the impact of loss of class stratification.

This example is for demonstration only and doesn't reflect actual experience of AUW programs.

# Accelerated Underwriting Mortality: Loss of the Sentinel Effect

The selection of loss of the Sentinel Effect load is a subjective process, depending on how openly an accelerated underwriting program is marketed and robustness of the program.

## ✗ Openly Marketed Program

**Anti-Selective Applicants**



A more openly marketed accelerated underwriting program would attract more anti-selective applicants and has a higher load for loss of the Sentinel Effect.



**Accelerated Underwriting Program Marketing**

**NO Medical Exam!!!  
100% Guaranteed!!!**

**May require medical exam or attending physician statement**

## ✓ Robust Model

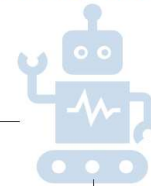
**Anti-Selective Applicants**



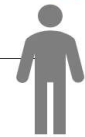
A robust program could knock out anti-selective applicants to full underwriting and eventually decline them.



**Robust Model**



✓ **Approved**



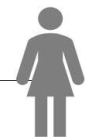
✗ **Declined**



✓ **Approved**



✗ **Declined**



**Weak Model**



More anti-selective applicants get an offer in a less robust program.