



## Enhanced underwriting and risk selection

# Milliman has developed and made available a suite of products to support and enhance risk selection at each step of the underwriting process.

## Initial underwriting

- Individual Medical Underwriting Guidelines™ (IMUGs™)
- Small Group Medical Underwriting Guidelines™ (SGMUGs™)

## Renewal underwriting

- RenewalMUGs™: Claims-based renewal medical underwriting engine

## Online initial underwriting

- WebMUGs™: Web-based version of the IMUGs and SGMUGs

## Prescription drug history information

- IntelliScript®

## The Individual and Small Group Medical Underwriting Guidelines

The Small Group Medical Underwriting Guidelines (SGMUGs) are tailored for small group underwriting, whereas the Individual Medical Underwriting Guidelines (IMUGs) are intended for the individual market. These are two separate MUGs products. The two products are structurally the same. However, in order to reflect the more detailed information available to underwriters for individual products, the IMUGs include information about exclusion riders and more detailed testing results and development information than do the SGMUGs.

The MUGs are a reference tool used at the time of initial underwriting to allow underwriters to review the information available for each applicant and assign relative risks in the form of assigning debit points. The debit points are then converted into relative risk scores, which plans use to determine what specific rating action should be taken.

## RenewalMUGs

While the MUGs are used for initial underwriting, the RenewalMUGs are used for renewal underwriting risk assessment. The RenewalMUGs are based on the MUGs and assess health status using claim data rather than information from underwriting applications. RenewalMUGs uses claim, pharmacy, premium, and enrollment information to identify the conditions and relative health status of members.

The RenewalMUGs software package is designed to provide maximum flexibility and convenience. Data source files can be in any one of three formats (text, Access, or SQL). The data input structures are well defined and make it easy to map source data to standard structures. Standard reports are produced in Microsoft Excel® for maximum flexibility, and a series of output files can be easily accessed for detailed reporting. Web-based demonstrations are available.

The RenewalMUGs software enables the underwriter to track member-specific conditions from the time of application to renewal. This allows for better first-year renewal rating. With RenewalMUGs, it's easy for the underwriter to review member-specific conditions and debits. RenewalMUGs is calibrated for each client to ensure that the health status load factors complement the manual rating variables, such as age/gender factors and family size categories.

Utilizing three years of data, RenewalMUGs calculates each member's months of coverage and adjusts the member's debit score if the claim data are not complete.

## WebMUGs

WebMUGs is a full-featured internet-based underwriting tool allowing underwriters to easily search all content within the MUGs as well as input and track underwriting information to help automate the process of determining a final risk profile for each group or applicant. It contains all the information included in the IMUGs and SGMUGs, and is helpful for streamlining the efficiency and ease of initial underwriting.

WebMUGs can increase efficiency and maximize underwriting sophistication by simplifying condition and rating look-ups and debit point assignment. The web-based system can quickly show the rating impact of excluding certain conditions and/or members and meets compliance requirements for documentation of underwriting decisions, which are satisfied by maintaining electronic records of each group/application.

WebMUGs can also produce detailed reports, including information about the following topics:

- Most frequent conditions for a selected time period
- Average debit points assigned by group and by group size (SGMUGs) or family member and family combined (IMUGs)
- Points assigned for height and weight (physical build) versus health conditions
- Health condition detail by member for a selected group/application
- Debits assigned to members based on health conditions, prescription use, physical build, and tobacco use

WebMUGs also allows for the easy exporting of all initial underwriting information for use in other internal reporting purposes as well as providing web service interfaces for integration with external census and rating systems.

### **Intelliscript**

IntelliScript® is an internet-based service that gathers prescription histories for underwriters. The underwriter gets authorization from applicants in advance, and results are delivered to the underwriter via the internet within seconds. This facilitates better and faster underwriting decisions. This instant underwriting intelligence enables automation as well as faster and more effective underwriting decisions.

IntelliScript reduces the need for obtaining further medical records or follow-up, provides additional information that facilitates improved decisions, and ensures more consistent decisions across a range of underwriter experience.

### **How does it work?**

1. Applicants provide a HIPAA-compliant authorization to access their medical records.
2. Insurers submit queries electronically to IntelliScript.
3. IntelliScript gathers information from its data sources.
4. Results are organized and delivered online to the underwriter.
  - Presentation is tailored to insurer's preferences
  - Results are displayed in a color-coded graphical timeline.
  - Details include drug name, dosage, fill date, pharmacy, and physician information.
  - Comprehensive workflow management capabilities are included.
  - Online reporting is user-driven.

## The Milliman Edge

Many health plans already have an experienced underwriting and actuarial staff and are well-positioned to implement the MUGs. We will work with your group to help provide training and other support as needed for the MUGs.

## How are the MUGs used?

### REVIEW INFORMATION TO ASSIGN DEBIT POINTS

Underwriters use information about the medical and prescription drug history of an individual or group to assign a total number of debit points. Debit points represent the estimated average cost for the first 12 months of coverage for an individual with a given condition relative to those without the condition.

Each medical condition listed in the condition ratings section of the MUGs may contain some or all of the information that is illustrated by the example on this page.

Once an individual's or group's health data is evaluated, health plans can determine the appropriate underwriting action based on the debit points assigned. The approach used to calculate the average debit points per group should be consistent with the way premiums are set.

### ARRIVE AT A RATING ACTION

Based on evaluation of the individual's or group's health risk using the MUGs debit point system, underwriters may take one of the following actions based on thresholds determined by the plan. (Note: Some of these actions may be limited by state or federal law.)

- Classify the individual or group as a preferred risk.
- Classify the individual or group as a non-preferred risk.
- Classify the individual as a preferred risk with coverage for certain conditions or services excluded.
- Classify the individual as a non-preferred risk with coverage for certain conditions or services excluded.
- Decline coverage.

Acceptance and rating criteria will vary by the insurer's rating philosophy and perhaps by state and federal regulation.

### STROKE, CEREBRAL

The symptom complex resulting from hemorrhage into or upon the brain or from embolism or thrombosis of the cerebral vessels, consisting of sudden onset of coma, paralysis, aphasia, etc. If small area involved, symptoms may be transient, and if larger, the result is usually permanent.

#### Development

1. Date of onset
2. Residual effect
3. Underlying disease or cause if known
4. Disability

RATING	ELAPSED TIME	DEBIT POINTS
Stroke without complications	<6 mos	210
	6 mos-1 year	60
	1-2 years	45
	>2 years	20
Stroke with hemorrhage	<6 mos	500
	6 mos-1 year	125
	1-2 years	70
	>2 years	25
Stroke with infarction	<6 mos	550
	6 mos-1 year	90
	>1 year	75
Stroke with other residuals, add		10
Rx: ACTIVASE		90
Rx: AGGRENOX		10
Rx: ALTACE		7
Rx: CLOPIDOGREL		15
Rx: COZAAR		6
Rx: HYZAAR		9
Rx: LIPITOR		9
Rx: LOSARTAN POTASSIUM		5
Rx: LOSARTAN POTASSIUM/HYDROCHLOROTHIAZIDE		7
Rx: MICARDIS		6
Rx: NIMODIPINE		24
Rx: NIMOTOP		47
Rx: PLAVIX		13
Rx: PRAVACHOL		11
Rx: PRAVASTATIN SODIUM		4
Rx: RAMIPRIL		2
Rx: REOPRO		20
Rx: SIMVASTATIN		4
Rx: TICLID		12
Rx: TICLOPIDINE HCL		3
Rx: TRIPLE BUFFERED ASPIRIN		0
Rx: ZOCOR		10

NOTE: If Transient Ischemic Attack (TIA) is also present, rate only for Stroke, Cerebral. Rate for underlying disease if known (diabetes, arteriosclerosis, etc.) and any resulting paralysis.

For more information, contact your Milliman consultant or  
[hcgmanager@milliman.com](mailto:hcgmanager@milliman.com).