Fat, BMI and Preferred Programs – A Good Mix?

Good news, USA: the US recently lost its #1 position as the “fattest” major nation. However, while Mexico takes over the lead, nearly a third of the population of each nation still falls into the obese category, with significant impacts to morbidity and mortality.

Life insurers adopted the Body Mass Index (BMI) in the 1980s to help determine an applicant’s weight class. According to the World Health Organization, an individual with a BMI of 30 or more is obese; if their BMI is over 40, the person is morbidly obese.

**Drawbacks**
BMI was not designed to approximate body fat, but it is a convenient, quick approximation. As we know, BMI has limitations as a fat-measurement tool:

- BMI does not differentiate well between fat and muscle or bone, both of which have greater mass than fat. “Big boned” or muscular individuals may be miscategorized as overweight or obese.
- BMI can exaggerate thinness in short people and fatness in tall people. For example, males on average are taller than females. A unisex approach to underwriting (required in some states) may be too favorable to women who are overweight/obese.
- BMI cannot account for body shape or build, a primary indicator of mortality.

**The Industry’s Response**
The industry recognizes some of these limitations. Companies commonly examine BMI history – plotting current BMI against the applicant’s historical average – to identify patterns that may signal concern. This includes erratic readings across medical reports as well as “application BMIs” lower than historical averages.

Many carriers incorporate BMI as one factor in their (super) preferred knock-out system. This is likely more rigidly enforced at lower face amounts. For applications exceeding $3-$5 million, underwriters may feel pressure to make business decisions, tainting the risk pool. Business decisions (for BMI and other underwriting factors) may be a major contributor to deteriorating mortality in higher face amount bands.

**Assessing Options**
Alternatives to BMI exist, but industry use has been limited. Many epidemiologists have stressed the use of identifying Metabolic Syndrome in applicants. This incorporates five factors: waist circumference, triglyceride levels, HDL cholesterol, blood pressure and fasting glucose readings.

Related to waist circumference, waist-to-height ratio can help underwriters quickly assess body shape. Individuals with gynoid (“pear”) figures bear most of their fat on the hips, thighs and buttocks, which are primarily muscle. In contrast, android (“apple”) body shapes have more fat above the waist around vital organs and therefore are associated with higher mortality risk. Waist size is directly correlated to diabetes risk.

A key challenge to any waist-related measurements is consistency. The waist lies above the hips, where most people will naturally take measurements. Insurers should provide clear instruction...
to examiners on how to properly measure the waist. Other similar tools may help underwriters define body shape as well. Our online underwriting manual, SOLEM Americas, offers several suggestions.

**Conclusion**

Weight and its attendant metrics can provide important insights into the underlying risk profile of an applicant. The trick is in conducting enough analysis to identify variances, investigate those variances and make a judgment on how the changes affect the applicant’s mortality profile – if at all. Our experienced team of facultative underwriters is available to assist clients in these sometimes challenging cases. 