Age and Gender Adjustment in Two Managed Care Organizations

The purpose of standardization is to make two or more populations “similar” along dimensions in which they differ. Earlier, we demonstrated two methods of age-adjustment. For example, we know that Florida has proportionately more older folks, and older folks die at higher rates than younger folks. In order to compare the mortality rate of Florida to Alaska, we needed to control for this disparity by adjusting for differences in the age mix of the two states. Conceptually, we can adjust for more than one dimension, e.g., age and gender, if we want to compare two or more populations, know that the age and gender mix will be different in those two populations, and also know that some disease-specific mortality rates depend on both age and gender. Such is the case with cardiovascular disease in two large MCOs, Bluegrass East (BGE) and Bluegrass West (BGW), the former with 100,000 members, and the latter with 120,000 members. Suppose we want to compare the cardiovascular mortality rate of BGE and BGW. Suppose that BGE has a higher proportion of older folks, and a higher proportion of women, than BGW. Assume that the crude disease-specific mortality rate for cardiovascular disease is 290 (per 100,000) in BGE and 160 (per 100,000) in BGW. (Textbook Case Study 6.2)

Case Questions: Answer the case questions, with research from your book, CDC, NIH and other quality sources to determine answers and solutions. You are to write a 2-3 page paper in APA formatting that addresses the following questions. Note: A minimum of two references should be used, which should include your textbook and the CDC, and others that support your responses in your paper. This is a paper, so your answer should not be numbered, but rather it should use titles and subtitles.

1. From these statistics alone, which MCO has the higher cardiovascular mortality rate?

2. The member mix in BGE and BGW is quite different. In BGW, 90% of the population is less than 55 years old compared to 77% in BGE. Refer to Table 6.7 to guide the calculation of age-adjusted cardiovascular mortality rates using the direct age-adjustment technique and the U.S. population as the standard. With age-adjusted rates, which MCO has the higher mortality rate?

3. Now assume that 60% of the members in BGW are men compared to 40% in BGE. Men have higher cardiovascular mortality rates than women. Refer to Table 6.8 to calculate age and Gender adjusted cardiovascular mortality rates. With age- and gender-adjusted rates, which MCO has the higher cardiovascular mortality rate?