**Additional file 5: Alternative model for constructing race/ethnic-specific life tables using dummy interaction terms**

where denotes age in years, denotes race/ethnicity, denotes the age- and race/ethnic-specific counts of deaths in the population, denotes the coefficient at baseline (i.e. the log of the mortality rate at the reference age for the reference race/ethnic group), denotes a cubic spline function on age, denotes a cubic spline function on the dummy interaction between and age, denotes the main effect of (i.e. how mortality differs at the reference age in race/ethnic group compared to the reference race/ethnic group, and denotes the age- and race/ethnic-specific person-years at risk in the population.

In addition to the knots on age specified in Additional file 1, four knots were initially specified for the interaction between each race/ethnicity and age, at the 25th, 50th and 75th percentiles of their distributions. An algorithm embedded in *mvrs* and based on AIC then identified the number of knots to be included in the final model for each.