The predictive accuracy of Health Risk Appraisals (HRAs) from the Center for Disease Control (CDC) and the Carter Center (CC) were compared by measuring them against actual mortality rates of 3,135 smokers and non-smokers. Unlike the CC HRA, the CDC HRA showed progressively increasing risk of 10-year mortality as the difference between each subject's actual age and risk age increased. Predicted mortality risks and risk ages were highly correlated in the two HRAs. High correlations remained when examined by age group and gender. However, significant differences between actual age and risk age for the CDC HRA and the CC HRA (-4.2 years versus -0.8 years) were found. On average, the CDC HRA was a better predictor of mortality than the CC HRA, especially among older men. (18 references)