Objectives for Module 9.1 – Crude and Age-Adjusted Risk Ratio for Death

1. **Calculate the crude risk ratio of death for smokers compared to nonsmokers in Stata**
2. **Calculate the age-adjusted risk ratio of death for smokers compared to nonsmokers in Stata**

I. Calculate the crude risk ratio of death for smokers compared to nonsmokers in Stata
   a. Dropdown
      i. Statistics → Epidemiology and related → Tables for epidemiologists → Cohort study risk-ratio etc.
      ii. Under "Case variable" select "death"; under "exposed variable" select "cursmoke1"
   b. Command window type: `cs death cursmoke1`

II. Calculate the age-adjusted risk ratio of death for smokers compared to nonsmokers in Stata.

First, create 4 categories for age using the following code:

```
gen age4cat=.
replace age4cat=0 if (age1<=40)
replace age4cat=1 if (age1>40 & age1 <= 50)
replace age4cat=2 if (age1>50 & age1 <= 60)
replace age4cat=3 if (age1>60 & age1<.)
```

   a. Dropdown
      i. Statistics → Epidemiology and related → Tables for epidemiologists → Cohort study risk-ratio etc.
      ii. Under "Case variable" select "death"; under "exposed variable" select "cursmoke1"
      iii. Go to the "Options" tab; click the box next to "stratify on variables"; use the dropdown menu to select "age4cat"
      Note: Under "Within-stratum weights" the button next to "Use Mantel-Haenszel" should be automatically selected
   b. Command window type: `cs death cursmoke1, by(age4cat)`