Subject: Prevalence Ratio or Odds Ratio
Posted by kmdshoyaib on Sun, 24 Sep 2023 02:17:18 GMT
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Hello all,

I created a Logistic Regression Model where the dependent variable was Awareness of spread of Tuberculosis and it had multiple independent variables such as Education, Age group, State, Type of residency etc.

The dependent variable had three categories:

1: Knowledge without misconceptions
2: Knowledge with misconceptions
3: No knowledge

For the same during publication, the reviewers had the following comments:

Why do the authors use adjusted odd ratios rather than prevalence ratios? The prevalence of no knowledge is higher than 10% and the OR would overestimate the Prevalence Ratio.

I am using STATA MP 18 for the same.

I would like to know the code or the procedure for deriving the Prevalence ratio. Can it be derived from the same regression analysis or does something else needs to be done.

I know that this is a statistics question but overall, I have learnt from the posts in this forum and any type of solution or leads will be really appreciated. Hope to hear from the experts and members at the earliest.

Thanks and Regards
Dr Shoyaib

Subject: Re: Prevalence Ratio or Odds Ratio
Posted by Bridgette-DHS on Thu, 28 Sep 2023 12:17:53 GMT
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Following is a response from Senior DHS staff member, Tom Pullum:

First, with 3 categories in the outcome variable, you should use mlogit, not logit. (An alternative could be a sequence of 2 logit regressions, but I'd prefer mlogit.) Second, with mlogit, there is an option to get relative risk ratios, by adding "rrr" after the comma. Third, I am not familiar with prevalence ratios or how they differ from relative risk ratios. The term "prevalence" suggests that this is an epidemiological term, and it may require data other than the cross-sectional data in a DHS survey.

I would have to do a search to get at the difference between relative risk ratios and prevalence ratios but will leave that up to you. Perhaps other forum users can help.