Subject: Re: Combine weights Men and Women - Cambodia DHS
Posted by Bridgette-DHS on Fri, 10 Jul 2020 13:36:09 GMT
View Forum Message <> Reply to Message

Following is another response from DHS Research & Data Analysis Director, Tom Pullum:

Very interesting question. A big conceptual issue is that the relationship between the outcome and pre-test counseling is not deterministic and if you could change the level of pre-test counseling (in a real population) then the other covariates in the model might change too. However, this is less serious for an intervention than for other covariates and it could be a way to generate target levels of pre-test counseling.

Think of x as the observed proportion (not percentage) of women with 1 on the intervention, in the entire survey or (better) in a more homogeneous sub-population. Say that P is the corresponding proportion who have 1 on the outcome. Say that b is the coefficient for the intervention (preferable in a model that includes controls). Say that X is the target level of x.

The observed P corresponds with the observed x, and P=.9 corresponds with the target X. Therefore log(.9/.1) log[P/(1-P)] equals b(X-x). The other terms in the regression equation drop out. Solving for X, the only unknown, you have
X = x+{[log(9) log[P/(1-P)]}/b . This is a simple approach but it may be TOO simple, because I see that it can generate values of X that are greater than 1, and that would not be legal for a probability. I suggest you try it. Maybe other forum users will have suggestions.