Subject: Re: Appending Multi-phase Nigerian DHS Surveys
Posted by Oby on Tue, 01 Oct 2024 20:11:42 GMT
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Thank you for your response bridgette. I have a follow-up question. My analytic sample is currently married women(15-49 years) and according to DHS guidelines, I am to denormalise the weight using population data from UNPD World Population Prospects. However, there is no population data for currently married women in Nigeria. Since I don't have direct population data for currently married women in Nigeria, I plan to use the proportion of currently married women from the DHS data to estimate it, and then apply that proportion to the total population of women aged 15-49 for each survey year.

This is my code below (I am using R)

```
# Denormalising the weight using population data from UNPD World Population Prospects-----

# divide v005 by 1 million
ir_2003 <- ir_2003 %>% mutate(weight_norm = v005 / 1000000)
ir_2008 <- ir_2008 %>% mutate(weight_norm = v005 / 1000000)
ir_2013 <- ir_2013 %>% mutate(weight_norm = v005 / 1000000)
ir_2018 <- ir_2018 %>% mutate(weight_norm = v005 / 1000000)

# total population of 15-49 women for each survey year
pop_2003 <- 31544644
pop_2008 <- 35882027
pop_2013 <- 41018918
pop_2018 <- 47146390

# Estimate the population of currently married women for each survey year
pop_married_2003 <- pop_2003 * prop_married_2003 # (prop_married means proportion of currently married)
pop_married_2008 <- pop_2008 * prop_married_2008
pop_married_2013 <- pop_2013 * prop_married_2013
pop_married_2018 <- pop_2018 * prop_married_2018

# Denormalize the weights using the estimated population of currently married women
ir_2003 <- ir_2003 %>% mutate(weight_denom = weight_norm * pop_married_2003 / sum(weight_norm))
ir_2008 <- ir_2008 %>% mutate(weight_denom = weight_norm * pop_married_2008 / sum(weight_norm))
ir_2013 <- ir_2013 %>% mutate(weight_denom = weight_norm * pop_married_2013 / sum(weight_norm))
ir_2018 <- ir_2018 %>% mutate(weight_denom = weight_norm * pop_married_2018 / sum(weight_norm))
```

Would this be accurate, or should I just use the data for the total population of women without applying the proportion?