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Subject: Sample size for Anthropometry in Malawi Demographic and Health Survey of 2010

Posted by [chikhungulana](#) on Thu, 07 Apr 2016 14:38:19 GMT

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Hello

I am analysing the levels and trends of stunting and underweight in Malawi. I notice that for anthropometry estimates for MDHS 2010 (4,586), the sample size is less than half of what was used in 2000(11,926) and 2004 (10,914) MDHS data sets. I also find that the variables such as Region and Urban/rural residence that were significantly associated with stunting and underweight in 2000 and 2004 are no longer significant in 2010 and I was wondering if this could be due to the reduced sample size. Your advice will be greatly appreciated.

Thanks

Lana

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Subject: Re: Sample size for Anthropometry in Malawi Demographic and Health Survey of 2010

Posted by [Liz-DHS](#) on Tue, 19 Apr 2016 16:26:24 GMT

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Dear User,

A response from Dr. Ruilin Ren:

Quote:

Hi Liz

I had a quick look of the stunting indicator for the three Malawi DHS surveys, I think the change that the data user noticed was not due to the reduced sample size in the 2010 survey. If you look at the changes of the indicator by residence and by region, there is a clear trend, though the changes may not be statistically significant due to the small sample size, but the trend is clear: the situation in the urban areas was worsened, while the situation improved in the rural area; at the three regions level, Northern and Southern areas were worsened, but Central was improved. These changes clearly reduced the differences between the urban and rural areas, and between the Central and the other regions. To my opinion, the data user might have observed the correct change of the association of the indicator with type of residence and regions. Especially at the three regions level, the 2000 survey showed large differences by region, while the 2010 regional difference was much smaller. See the pooled indicators below.

DHS Code Region Indicator R

2000 1 Urban Height-for-age (Below -2SD) 0.342

2004 1 Urban Height-for-age (below -2SD) 0.378

2010 1 Urban Height-for-age (below -2SD) 0.407

DHS Code Region Indicator R

2000 2 Rural Height-for-age (Below -2SD) 0.512  
2004 2 Rural Height-for-age (below -2SD) 0.492  
2010 2 Rural Height-for-age (below -2SD) 0.482

DHS Code Region Indicator R

2000 3 Northern Height-for-age (Below -2SD) 0.390  
2004 3 Northern Height-for-age (below -2SD) 0.424  
2010 3 Northern Height-for-age (below -2SD) 0.447

DHS Code Region Indicator R

2000 4 Central Height-for-age (Below -2SD) 0.555  
2004 4 Central Height-for-age (below -2SD) 0.527  
2010 4 Central Height-for-age (below -2SD) 0.472

DHS Code Region Indicator R

2000 5 Southern Height-for-age (Below -2SD) 0.453  
2004 5 Southern Height-for-age (below -2SD) 0.453  
2010 5 Southern Height-for-age (below -2SD) 0.476