
Subject: calculating sample size for two-stage sample
Posted by [aina2233](#) on Wed, 01 Jun 2016 18:44:10 GMT
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I am reading the DHS Sampling and Household Listing Manual (published in Sept.2012, ICF International, Calverton, Maryland USA). I got confused from page 10 (reading in Word the Manual), chapter 1.6.2. Sample Size Determination. Since I want to achieve the results, provided in the table below on that page, using the provided formula for calculating sample size, and I can't get the identical results:

$$n = \text{Deft}^2 \times \left(\frac{1/P - 1}{\text{divided by } a^2} \right) / (R_i \times R_h \times d)$$

and the values are in the manual's table as copied below. For calculating sample size n for RSE 0.10 I am multiplying 1,4 squared x (1/0,2 - 1) / 0,1 squared / (0.96 x 0.92 x 1,05)

and cannot get to the same number as in the table (846) . I used also half of RSE 0.05 squared, but can't get the same number 846. If you can help me, what I am doing wrong? Since I want to be confident in using formula for sample size calculation (intended for two-stage sample).

From Manual's Table:

Estimated proportion p	0.20	Total target population	(blank)
Estimated design effect (Deft)	1.40	# of target individuals/HH	1.05
Individual response rate	0.96	HH gross response rate	0.92
Desired Net Sample	Sample size	Expected	95% confidence limits
RSE size individual	Household SE	Lower	Upper
0.12	544 587	0.024	0.152 0.248
0.11	648 699	0.022	0.156 0.244
0.10	784 846	0.020	0.160 0.240
0.05	3136 3382	0.010	0.180 0.220

Subject: Re: calculating sample size for two-stage sample
Posted by [Bridgette-DHS](#) on Fri, 03 Jun 2016 16:59:59 GMT
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A team member has responded to you directly, using the email you provided on the forum.

Thanks
