

Sample size of the study

Sample sizes was determined using following equation:

$$n = \frac{Z^2 pq}{d^2}$$

Here,

n= the desired sample size

Z = the standard normal deviate usually set at 1.96 correspond to 95% confidence level

p = the proportion of the target population estimated to had a particular characteristic

q= 1- p

d = degree of accuracy desired, usually set as (0.05) 5%

Now, required sample size was:

$$\begin{aligned} n &= \frac{Z^2 pq}{d^2} \\ &= \frac{(1.96)^2 \times (0.5) \times (0.5)}{(0.05)^2} \\ &= 384 \end{aligned}$$

Where,

Z = Critical value for 95% confidence level

p = estimated prevalence rate of CVD risk factors in school children among urban and rural area of Bangladesh considered as 50%, as the data was unavailable in these group of people.

q = 1-p = 50% = 0.50

d= desired decision level 0.05

n= desired sample size

For urban and rural it was required 384 + 384= 768 and by considering 10% nonresponse rate, the estimated sample size was 853. However, for equal distribution we considered **854** (urban 427 and rural 427) for our required sample size.