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The proportion girls with anemia were expected to be 60% (0.60) and a difference of 20% (0.20) after the intervention between experimental and control groups were expected to be significant at 0.05 level. Thus the sample size was calculated using the following formula (Fisher et al 1991)

The formula: 
$$\mathbf{n} = \frac{2 \mathbf{z}^2 \mathbf{pq}}{\mathbf{d}^2}$$

where,

n =the desired sample size

z = the standard normal deviation, normally set at 1.96, which corresponds to the 95 % confidence level.

p = the proportion in the target population estimated to have a particular characteristics. Here prevalence of anemia (expected to be 60%): 0.60

q = 1.0 - p, i.e. 0.40

d = Significant difference between the two groups at the 0.05 level

thus, 
$$\mathbf{n} = 2 (1.96)^2 \times 0.60 \times 0.40$$
  
 $(0.20)^2$ 

= 46 girls per group