

## APPENDIX I

### Sample size determination and sampling procedure

Sample size was determined using the formula for single population proportion by considering Prevalence of [Expected frequency] 23.3% (1)

$$n = \frac{g \cdot Z^2 \alpha / 2p(1-p)}{w^2} = \frac{2 \cdot (1.96)^2 (0.23)(1-0.23)}{(0.05)^2} = 550 \text{ households [power calculated sample]}$$

- $\alpha$  = (level of significance) = 5%
- Z = value of z statistic at 95% confidence level
- w = margin of error allowed = 5%
- P = (Expected people to have experience at least one fall in the previous one year)
- $q = 1 - p = 77$
- g = design effect
- n = sample size

Considering a contingency of 10% was added, the final sample size (households) derived was:

**605 households**

### Reference

1. Ntagungira EK. Epidemiology of and risk factors for falls among the community-dwelling elderly people in selected districts of Umutara Province, Republic of Rwanda. 2005;

## APPENDIX 2

A flow chart of sampling procedure followed in households of 12 sub cities of Gondar town included in the study, 2018

