

Tables

Table 1. Distribution of respondents for household and individual interviews by disposition codes of a Survey(12).

Status	Number	Percent
<i>A. Household interview</i>		
Roster completed	7320	91.1*
Roster not completed	719	8.9
Total	8039	100.0
<i>B. Individual interview</i>		
Completed	7270	99.3†
Not completed	50	0.7
Total	7320	100.0
Overall response rate*	-	90.4‡

* Household response rate(%)=[7320x100]/[8039]=91.0%

† Individual response rate (%)=[7270x100]/[7320]=99.3%

‡ Total response rate (%)=91.0*99.3/100=90.4%

Table 2. Calculation of adjusted weights* from base weight.

Sl. No.	Strata code†	Base weight‡	Non-response factors			Non-response adjusted weight	Projected population¶	Population calibration factor**	Population calibrated weight††	Trimmed weight‡‡
			PSU§	HH§	Person					
1	10212	4353.4	1.00	1.05	1.05	4808.0	416824.0	0.9155	4401.7	6472.1
2	10213	4353.4	1.00	1.05	1.05	4808.0	344170.0	0.9988	4802.1	6872.4
3	10211	13060.0	1.00	1.05	1.05	14424.0	558175.0	1.2017	17332.9	19403.2
~	~	~	~	~	~	~	~	~	~	~
~	~	~	~	~	~	~	~	~	~	~
8894	30114	17760.7	1.00	1.10	1.21	23636.9	558955.0	1.2515	29582.1	31668.4
8895	30122	35521.4	1.00	1.10	1.21	47273.7	1191581.0	0.7461	35272.9	31821.5
8896	30123	17760.7	1.00	1.10	1.21	23636.9	732745.0	0.4940	11677.0	13763.2
Total		79 422 102.0				92569865.8	102161911.0		102948677.6	102950428.1

* Calculated from non-response weights and population calibration adjusted base weights

† Strata code contains divisional (two digits from left), residence (third digit from left), sex (fourth digit from left) and age group (last digit from right) codes

‡ Calculated by, base weight= $1/p_1 \times 1/p_2 \times 1/p_3 \times 1/p_4$, p1= primary sampling unit; p2=household; p3=sex randomization and p4=individual selection probabilities

§ PSU: primary sampling unit; HH: Household;

|| Calculated by, *Non-response adjusted base weight=base weight x non-reposnses weights (PSU x HH x Individual)*

¶ Projected population of Bangladesh aged ≥ 18 years is based on Census 2011 (11)

** Population calibration factor=(projected population in a domain)/(non-response adjusted weights in that domain)

††Population calibrated weight= Non-response adjusted weight x Population calibration factor

‡‡Trimmed weight: calculated after trimming any weight of population calibration adjusted weights beyond 3.5 times median weight (31821.53) and set at that level. The additional weights trimmed is then equally distributed among the non-trimmed weights. This is run twice till no weights were more than 3.5 times median weight.

Table 3. Comparison of untrimmed versus trimmed weights (n=7270)

Statistic	Untrimmed weights			Trimmed weight
	Base weight [*]	Non-response adjusted weight [‡]	Population calibrated weight [§]	
Mean	10924.6	12733.1	14160.8	14161.0
Median	8081.9	9440.1	9091.9	11178.1
Mode	17741.5	20058.3	23189.2	31821.5
Standard Error	130.4	153.9	186.8	112.6
Standard Deviation	11118.5	13123.6	15928.7	9598.6
Sample Variance	123620412.3	172228764.5	253723472.9	92132725.6
Minimum	594.5	653.4	464.3	2550.5
Maximum	210852.8	259127.8	261512.4	31837.4
Sum	79422102	92569866	102948678	102950428
Percent difference [¶]	77.7	90.6	100.8	100.8
95% confidence level	255.6	301.7	366.2	220.7
Multiplicative effect ^{**}	2.0	2.1	2.3	1.5

(5)

* Calculated by, base weight= $1/p_1 \times 1/p_2 \times 1/p_3 \times 1/p_4$, p_1 = primary sampling unit; p_2 =household; p_3 =sex randomization and p_4 =individual selection probabilities

‡ Calculated by, *Non-response adjusted base weight=base weight x non-reponses weights (PSUxHHxIndividual)*

§ Calculated by, multiplying the non-response adjusted base weight with population calibration factor.

|| All weights above 3.5 times median (31821.53) is set at that value and excess weights are equally distributed among non-trimmed weights and process is repeated till no weight is above the cutoff value.

¶ Percent difference from projected population (11) of 102 161 911 calculated as, $(\text{sum of weights} * 100)/102161911$

** Multiplicative effect = $1 + (\text{sample variance})/(\text{mean weight})^2$

Table 4. Distribution of prevalence* (7) (% , 95% confidence interval) and design effect by four weights (n=7270)

Residence	Unweighted	Weighted			
		Base†	Non-response adjusted‡	Population calibrated§	Trimmed
Overall	17.0 (16.1–18.0)	16.8 (15.5–18.1)	16.8 (15.4–18.1)	15.8 (14.5–17.1)	16.2 (15.1–17.3)
Urban	16.7 (15.4–18.0)	15.4 (13.3–17.4)	15.3 (13.2–17.4)	14.4 (12.4–16.4)	15.3 (13.7–16.8)
Rural	17.4 (15.9–18.8)	17.2 (15.6–18.7)	17.2 (15.6–18.8)	16.3 (14.7–17.9)	16.6 (15.1–18.0)
Male	15.0 (13.7–16.2)	13.8 (12.2–15.5)	13.7 (12.1–15.4)	12.5 (10.9–14.1)	13.2 (11.9–14.6)
Female	18.9 (17.7–20.2)	19.4 (17.8–21.1)	19.5 (17.8–21.2)	18.8 (17.1–20.6)	18.8 (17.4–20.3)
Design effect¶ (2)	1.3	2.3	2.3	2.4	1.7

* Prevalence of mental disorders among aged ≥ 18 years from National Mental health Survey Bangladesh 2019

† Calculated by, base weight = $1/p_1 \times 1/p_2 \times 1/p_3 \times 1/p_4$, p1= primary sampling unit; p2=household; p3=sex randomization and p4=individual selection probabilities

‡ Calculated by, Non – response adjusted base weight = base weight x non–reponses weights (PSU x HH x Individual)

§ Calculated by, multiplying the non-response adjusted base weight with population calibration factor.

|| All weights above 3.5 times median weight is set at that value and the excess weights are equally distributed among the non-trimmed weights and process is repeated till no weight is above the cutoff value.

¶ Design effect=(variance obtained in simple random sampling)/(variance obtained in complex sampling)