

1. Background characteristics of the study population

| Variable            | Weighted n (%)                     |                                 |
|---------------------|------------------------------------|---------------------------------|
|                     | 2017–18<br>N = 12,091 <sup>1</sup> | 2022<br>N = 13,594 <sup>1</sup> |
| <b>Hypertensive</b> |                                    |                                 |
| No                  | 9,399 (78%)                        | 11,527 (85%)                    |
| Yes                 | 2,692 (22%)                        | 2,067 (15%)                     |
| <b>Diabetic</b>     |                                    |                                 |
| No                  | 9,308 (77%)                        | 6,980 (51%)                     |
| Yes                 | 2,783 (23%)                        | 6,614 (49%)                     |
| <b>Age</b>          |                                    |                                 |
| ≤40 years           | 7,256 (60%)                        | 7,625 (56%)                     |
| >40 years           | 4,835 (40%)                        | 5,969 (44%)                     |
| <b>Sex</b>          |                                    |                                 |
| Female              | 6,914 (57%)                        | 7,523 (55%)                     |
| Male                | 5,177 (43%)                        | 6,071 (45%)                     |
| <b>Division</b>     |                                    |                                 |
| Barisal             | 666 (5.5%)                         | 844 (6.2%)                      |
| Chattogram          | 2,082 (17%)                        | 2,454 (18%)                     |
| Dhaka               | 2,791 (23%)                        | 3,027 (22%)                     |
| Khulna              | 1,510 (12%)                        | 1,664 (12%)                     |
| Mymensingh          | 988 (8.2%)                         | 1,150 (8.5%)                    |
| Rajshahi            | 1,751 (14%)                        | 1,859 (14%)                     |
| Rangpur             | 1,514 (13%)                        | 1,656 (12%)                     |
| Sylhet              | 789 (6.5%)                         | 939 (6.9%)                      |
| <b>Residence</b>    |                                    |                                 |
| Rural               | 8,883 (73%)                        | 9,993 (74%)                     |
| Urban               | 3,208 (27%)                        | 3,600 (26%)                     |

| Variable              | Weighted n (%)                     |                                 |
|-----------------------|------------------------------------|---------------------------------|
|                       | 2017–18<br>N = 12,091 <sup>1</sup> | 2022<br>N = 13,594 <sup>1</sup> |
| <b>Education</b>      |                                    |                                 |
| No Education          | 3,108 (26%)                        | 3,545 (26%)                     |
| Primary               | 3,618 (30%)                        | 3,474 (26%)                     |
| Secondary             | 3,562 (29%)                        | 4,536 (33%)                     |
| Higher                | 1,797 (15%)                        | 2,029 (15%)                     |
| <b>Wealth Index</b>   |                                    |                                 |
| Poorest               | 2,338 (19%)                        | 2,484 (18%)                     |
| Poorer                | 2,389 (20%)                        | 2,825 (21%)                     |
| Middle                | 2,494 (21%)                        | 2,713 (20%)                     |
| Richer                | 2,408 (20%)                        | 2,832 (21%)                     |
| Richest               | 2,462 (20%)                        | 2,739 (20%)                     |
| <b>BMI</b>            |                                    |                                 |
| Thin                  | 570 (4.7%)                         | 984 (7.2%)                      |
| Normal                | 2,783 (23%)                        | 3,847 (28%)                     |
| Overweight            | 8,737 (72%)                        | 8,762 (64%)                     |
| <b>Smoking Status</b> |                                    |                                 |
| No                    | 10,378 (86%)                       | 12,169 (90%)                    |
| Yes                   | 1,708 (14%)                        | 1,407 (10%)                     |

<sup>1</sup>n (%)

- Adjusted OR (AOR), 95% CI and p value from fixed effect logistic regression model for Hypertension

| Variables        | 2017–18     |            |         | 2022        |            |         |
|------------------|-------------|------------|---------|-------------|------------|---------|
|                  | Adjusted OR | 95% CI     | p-value | Adjusted OR | 95% CI     | p-value |
| <b>Age</b>       |             |            | <0.001  |             |            | <0.001  |
| ≤40 years        | —           | —          |         | —           | —          |         |
| >40 years        | 3.49        | 3.13, 3.89 |         | 3.98        | 3.47, 4.55 |         |
| <b>BMI</b>       |             |            | <0.001  |             |            | 0.019   |
| Normal           | —           | —          |         | —           | —          |         |
| Thin             | 0.62        | 0.43, 0.89 |         | 0.79        | 0.63, 1.00 |         |
| Overweight       | 1.66        | 1.44, 1.92 |         | 1.07        | 0.95, 1.21 |         |
| <b>Diabetic</b>  |             |            | <0.001  |             |            | 0.400   |
| No               | —           | —          |         | —           | —          |         |
| Yes              | 1.28        | 1.14, 1.44 |         | 0.95        | 0.84, 1.07 |         |
| <b>Division</b>  |             |            | <0.001  |             |            | 0.004   |
| Barisal          | —           | —          |         | —           | —          |         |
| Chattogram       | 0.79        | 0.62, 0.99 |         | 1.12        | 0.89, 1.41 |         |
| Dhaka            | 0.59        | 0.47, 0.75 |         | 1.03        | 0.82, 1.29 |         |
| Khulna           | 0.83        | 0.67, 1.04 |         | 1.15        | 0.91, 1.45 |         |
| Mymensingh       | 0.58        | 0.46, 0.74 |         | 0.91        | 0.71, 1.16 |         |
| Rajshahi         | 0.91        | 0.72, 1.16 |         | 1.49        | 1.16, 1.92 |         |
| Rangpur          | 1.05        | 0.85, 1.31 |         | 1.27        | 1.02, 1.59 |         |
| Sylhet           | 0.67        | 0.53, 0.85 |         | 0.96        | 0.74, 1.23 |         |
| <b>Education</b> |             |            | 0.023   |             |            | <0.001  |
| No Education     | —           | —          |         | —           | —          |         |
| Primary          | 0.89        | 0.77, 1.01 |         | 0.81        | 0.70, 0.94 |         |

| Variables             | 2017–18     |            |         | 2022        |            |         |
|-----------------------|-------------|------------|---------|-------------|------------|---------|
|                       | Adjusted OR | 95% CI     | p-value | Adjusted OR | 95% CI     | p-value |
| Secondary             | 0.88        | 0.75, 1.03 |         | 0.73        | 0.62, 0.86 |         |
| Higher                | 0.76        | 0.63, 0.91 |         | 0.66        | 0.54, 0.81 |         |
| <b>Wealth Index</b>   |             |            | <0.001  |             |            | <0.001  |
| Poorest               | —           | —          |         | —           | —          |         |
| Poorer                | 1.07        | 0.90, 1.26 |         | 1.28        | 1.05, 1.55 |         |
| Middle                | 1.21        | 1.00, 1.45 |         | 1.26        | 1.04, 1.53 |         |
| Richer                | 1.29        | 1.07, 1.55 |         | 1.51        | 1.24, 1.82 |         |
| Richest               | 1.61        | 1.33, 1.95 |         | 1.88        | 1.52, 2.34 |         |
| <b>Smoking Status</b> |             |            | 0.008   |             |            | 0.946   |
| No                    | —           | —          |         | —           | —          |         |
| Yes                   | 0.83        | 0.73, 0.95 |         | 0.99        | 0.80, 1.23 |         |

Abbreviations: CI = Confidence Interval, OR = Odds Ratio

### 3. Adjusted OR (AOR), 95% CI and p value from fixed effect logistic regression model for Diabetes

| Variables  | 2017–18     |            |         | 2022        |            |         |
|------------|-------------|------------|---------|-------------|------------|---------|
|            | Adjusted OR | 95% CI     | p-value | Adjusted OR | 95% CI     | p-value |
| <b>Age</b> |             |            | <0.001  |             |            | <0.001  |
| ≤40 years  | —           | —          |         | —           | —          |         |
| >40 years  | 1.57        | 1.41, 1.74 |         | 1.66        | 1.53, 1.80 |         |
| <b>BMI</b> |             |            | 0.138   |             |            | <0.001  |

| Variables           | 2017–18     |            |         | 2022        |            |         |
|---------------------|-------------|------------|---------|-------------|------------|---------|
|                     | Adjusted OR | 95% CI     | p-value | Adjusted OR | 95% CI     | p-value |
| Normal              | —           | —          |         | —           | —          |         |
| Thin                | 1.01        | 0.77, 1.32 |         | 0.87        | 0.75, 1.01 |         |
| Overweight          | 1.13        | 1.00, 1.29 |         | 1.19        | 1.10, 1.30 |         |
| <b>Hypertensive</b> |             |            | <0.001  |             |            | 0.399   |
| No                  | —           | —          |         | —           | —          |         |
| Yes                 | 1.29        | 1.14, 1.45 |         | 0.95        | 0.85, 1.07 |         |
| <b>Division</b>     |             |            | <0.001  |             |            | <0.001  |
| Barisal             | —           | —          |         | —           | —          |         |
| Chattogram          | 0.84        | 0.63, 1.14 |         | 1.30        | 0.96, 1.78 |         |
| Dhaka               | 1.38        | 1.02, 1.88 |         | 1.33        | 0.96, 1.84 |         |
| Khulna              | 0.59        | 0.44, 0.79 |         | 0.81        | 0.59, 1.11 |         |
| Mymensingh          | 0.73        | 0.55, 0.98 |         | 0.77        | 0.54, 1.10 |         |
| Rajshahi            | 0.60        | 0.43, 0.83 |         | 0.68        | 0.47, 0.98 |         |
| Rangpur             | 0.51        | 0.37, 0.69 |         | 1.21        | 0.84, 1.73 |         |
| Sylhet              | 0.74        | 0.53, 1.02 |         | 1.30        | 0.95, 1.78 |         |
| <b>Residence</b>    |             |            | 0.931   |             |            | 0.014   |
| Rural               | —           | —          |         | —           | —          |         |
| Urban               | 1.01        | 0.85, 1.19 |         | 1.28        | 1.05, 1.55 |         |
| <b>Wealth Index</b> |             |            | <0.001  |             |            | <0.001  |
| Poorest             | —           | —          |         | —           | —          |         |
| Poorer              | 0.89        | 0.71, 1.10 |         | 1.12        | 0.96, 1.31 |         |
| Middle              | 1.06        | 0.84, 1.33 |         | 1.27        | 1.07, 1.51 |         |
| Richer              | 1.53        | 1.22, 1.91 |         | 1.36        | 1.14, 1.62 |         |
| Richest             | 2.27        | 1.82, 2.83 |         | 1.57        | 1.30, 1.90 |         |

Abbreviations: CI = Confidence Interval, OR = Odds Ratio

4. Akaike Information Criteria (AICs), p-value of Likelihood Ratio Tests (LRTs) and Intra-class Correlation Coefficients (ICCs) for both fixed and mixed effect models

| Survey year         | AIC (Fixed) | AIC (Mixed) | LRT p-value | ICC   |
|---------------------|-------------|-------------|-------------|-------|
| <b>Hypertension</b> |             |             |             |       |
| 2017–18             | 11,607.0    | 11,549.8    | <0.001      | 0.046 |
| 2022                | 10,609.0    | 10,524.0    | <0.001      | 0.061 |
| <b>Diabetes</b>     |             |             |             |       |
| 2017–18             | 12,286.0    | 11,949.0    | <0.001      | 0.111 |
| 2022                | 18,222.1    | 16,332.6    | <0.001      | 0.281 |