

Table S1. Bogra significant results with covariates for Model 1

| Drought Index | Mortality Category | Factors | B | Lower | Upper | P | EXP(B) | Lower | Upper |
|---------------|--------------------|----------|-------|-------|-------|------|--------|-------|-------|
| 3SPI | NC | temp | -0.03 | -0.05 | -0.01 | 0.00 | 0.97 | 0.95 | 0.99 |
| | CD | temp | -0.04 | -0.08 | -0.01 | 0.01 | 0.96 | 0.92 | 0.99 |
| | ID | temp | -0.06 | -0.11 | -0.01 | 0.01 | 0.94 | 0.90 | 0.99 |
| | ID | humidity | 0.04 | 0.01 | 0.07 | 0.01 | 1.04 | 1.01 | 1.07 |
| 12SPI | NC | temp | -0.04 | -0.05 | -0.02 | 0.00 | 0.96 | 0.95 | 0.98 |
| | CD | temp | -0.04 | -0.07 | 0.00 | 0.03 | 0.96 | 0.93 | 1.00 |
| | RD | temp | -0.04 | -0.07 | 0.00 | 0.03 | 0.96 | 0.93 | 1.00 |
| | ID | temp | -0.07 | -0.12 | -0.02 | 0.00 | 0.93 | 0.89 | 0.98 |
| | ID | humidity | 0.03 | 0.00 | 0.06 | 0.03 | 1.03 | 1.00 | 1.07 |
| 3SPEI | NC | temp | -0.04 | -0.05 | -0.02 | 0.00 | 0.96 | 0.95 | 0.98 |
| | CD | temp | -0.04 | -0.07 | -0.01 | 0.02 | 0.96 | 0.93 | 0.99 |
| | RD | temp | -0.04 | -0.07 | 0.00 | 0.02 | 0.96 | 0.93 | 1.00 |
| | ID | temp | -0.07 | -0.12 | -0.02 | 0.01 | 0.93 | 0.89 | 0.98 |
| | ID | humidity | 0.04 | 0.00 | 0.07 | 0.03 | 1.04 | 1.00 | 1.07 |
| 12SPEI | NC | temp | -0.04 | -0.05 | -0.02 | 0.00 | 0.96 | 0.95 | 0.98 |
| | CD | temp | -0.04 | -0.07 | -0.01 | 0.01 | 0.96 | 0.93 | 0.99 |
| | RD | temp | -0.03 | -0.07 | 0.00 | 0.05 | 0.97 | 0.93 | 1.00 |
| | ID | temp | -0.07 | 0.03 | -0.12 | 0.01 | 0.94 | 0.89 | 0.99 |

¹No drought used as reference. *NC, natural cause, CD, cardiovascular disease, RD, respiratory disease, ID, infectious disease, SU, suicide, temp, temperature.

Table S2: Dinajpur significant results with covariates for Model 1

| Drought Index | Mortality Category | Factors | B | Lower | Upper | P | EXP(B) | Lower | Upper |
|---------------|--------------------|----------|-------|-------|-------|------|--------|-------|-------|
| 3SPI | NC | temp | -0.03 | -0.05 | -0.01 | 0.00 | 0.97 | 0.95 | 0.99 |
| | CD | humidity | -0.02 | -0.04 | 0.00 | 0.03 | 0.96 | 0.93 | 1.00 |
| | RD | temp | -0.04 | -0.07 | 0.00 | 0.03 | 1.04 | 1.00 | 1.07 |
| | ID | humidity | 0.04 | 0.00 | 0.07 | 0.03 | 1.04 | 1.00 | 1.07 |
| 12SPI | NC | temp | -0.03 | -0.05 | -0.01 | 0.00 | 0.97 | 0.95 | 0.99 |
| | CD | humidity | -0.02 | -0.04 | 0.00 | 0.03 | 0.98 | 0.96 | 1.00 |
| | ID | humidity | 0.04 | 0.00 | 0.07 | 0.03 | 1.04 | 1.00 | 1.07 |
| 3SPEI | NC | temp | -0.03 | -0.05 | -0.01 | 0.00 | 0.97 | 0.95 | 0.99 |
| | RD | temp | -0.03 | -0.06 | 0.00 | 0.03 | 0.97 | 0.94 | 1.00 |
| | ID | humidity | 0.03 | 0.00 | 0.06 | 0.03 | 1.03 | 1.00 | 1.07 |
| 12SPEI | NC | temp | -0.03 | -0.05 | -0.01 | 0.01 | 0.97 | 0.95 | 0.99 |
| | CD | humidity | -0.02 | -0.04 | 0.00 | 0.03 | 0.98 | 0.96 | 1.00 |
| | ID | humidity | 0.04 | 0.00 | 0.07 | 0.03 | 1.04 | 1.00 | 1.07 |

¹No drought used as reference. *NC, natural cause, CD, cardiovascular disease, RD, respiratory disease, ID, infectious disease, SU, suicide, temp, temperature

Table S3: Ishurdi significant results with covariates for Model 1

| Drought Index | Mortality Category | Factors | B | Lower | Upper | P | EXP(B) | Lower | Upper |
|---------------|--------------------|---------|-------|-------|-------|------|--------|-------|-------|
| 3SPI | NC | temp | -0.04 | -0.06 | -0.02 | 0.00 | 0.96 | 0.94 | 0.98 |
| | CD | temp | -0.04 | -0.07 | -0.02 | 0.00 | 0.96 | 0.93 | 0.98 |
| | RD | temp | -0.05 | -0.09 | -0.01 | 0.01 | 0.95 | 0.92 | 0.99 |
| 12SPI | NC | temp | -0.04 | -0.06 | -0.02 | 0.00 | 0.96 | 0.95 | 0.98 |
| | CD | temp | -0.04 | -0.07 | -0.01 | 0.01 | 0.96 | 0.94 | 0.99 |
| | RD | temp | -0.05 | -0.09 | -0.01 | 0.02 | 0.95 | 0.92 | 0.99 |
| 3SPEI | NC | temp | -0.03 | -0.05 | -0.01 | 0.00 | 0.97 | 0.95 | 0.99 |
| | CD | temp | -0.04 | -0.07 | -0.01 | 0.01 | 0.96 | 0.93 | 0.99 |
| | RD | temp | -0.04 | -0.08 | 0.00 | 0.04 | 0.96 | 0.92 | 1.00 |
| 12SPEI | NC | temp | -0.04 | -0.06 | -0.02 | 0.00 | 0.97 | 0.95 | 0.98 |
| | CD | temp | -0.04 | -0.07 | -0.01 | 0.01 | 0.96 | 0.94 | 0.99 |
| | RD | temp | -0.05 | -0.09 | -0.01 | 0.02 | 0.95 | 0.92 | 0.99 |

¹No drought used as reference. *NC, natural cause, CD, cardiovascular disease, RD, respiratory disease, ID, infectious disease, SU, suicide, temp, temperature

Table S4: Rajshahi significant results with covariates for Model 1

| Drought Index | Mortality Category | Factors | B | Lower | Upper | P | EXP(B) | Lower | Upper |
|---------------|--------------------|----------|-------|-------|-------|------|--------|-------|-------|
| 3SPI | NC | temp | -0.04 | -0.05 | -0.03 | 0.00 | 0.96 | 0.95 | 0.97 |
| | CD | temp | -0.04 | -0.06 | -0.01 | 0.00 | 0.96 | 0.94 | 0.99 |
| | RD | temp | -0.07 | -0.09 | -0.05 | 0.00 | 0.94 | 0.91 | 0.96 |
| 12SPI | ID | temp | -0.05 | -0.08 | -0.02 | 0.00 | 0.95 | 0.92 | 0.98 |
| | SU | temp | 0.10 | 0.01 | 0.19 | 0.03 | 1.10 | 1.01 | 1.21 |
| | NC | temp | -0.04 | -0.05 | -0.03 | 0.00 | 0.96 | 0.95 | 0.98 |
| 3SPEI | CD | temp | -0.03 | -0.05 | -0.01 | 0.00 | 0.97 | 0.95 | 0.99 |
| | RD | temp | -0.06 | -0.08 | -0.04 | 0.00 | 0.94 | 0.92 | 0.96 |
| | ID | temp | -0.05 | -0.08 | -0.03 | 0.00 | 0.95 | 0.92 | 0.97 |
| 12SPEI | SU | temp | 0.11 | 0.02 | 0.20 | 0.02 | 1.11 | 1.02 | 1.22 |
| | NC | temp | -0.04 | -0.05 | -0.03 | 0.00 | 0.96 | 0.95 | 0.97 |
| | CD | temp | -0.03 | -0.05 | -0.01 | 0.00 | 0.97 | 0.95 | 0.99 |
| 3SPEI | RD | temp | -0.06 | -0.08 | -0.04 | 0.00 | 0.94 | 0.92 | 0.96 |
| | ID | temp | -0.05 | -0.08 | -0.03 | 0.00 | 0.95 | 0.92 | 0.97 |
| | SU | temp | 0.10 | 0.02 | 0.19 | 0.02 | 1.11 | 1.02 | 1.21 |
| 12SPEI | NC | temp | -0.04 | -0.05 | -0.03 | 0.00 | 0.96 | 0.95 | 0.97 |
| | CD | temp | -0.04 | -0.06 | -0.02 | 0.00 | 0.96 | 0.94 | 0.98 |
| | RD | temp | -0.06 | -0.09 | -0.04 | 0.00 | 0.94 | 0.92 | 0.96 |
| 12SPEI | ID | temp | -0.06 | -0.09 | -0.03 | 0.00 | 0.94 | 0.92 | 0.97 |
| | ID | humidity | -0.02 | -0.03 | 0.00 | 0.03 | 0.98 | 0.97 | 1.00 |
| | SU | temp | 0.10 | 0.01 | 0.19 | 0.03 | 1.11 | 1.01 | 1.21 |

¹No drought used as reference. *NC, natural cause, CD, cardiovascular disease, RD, respiratory disease, ID, infectious disease, SU, suicide, temp, temperature

Table S5: Rangpur significant results with covariates for Model 1

| Drought Index | Mortality Category | Factors | B | Lower | Upper | P | EXP(B) | Lower | Upper |
|---------------|--------------------|---------|-------|-------|-------|------|--------|-------|-------|
| 3SPI | NC | temp | -0.04 | -0.06 | -0.03 | 0.00 | 0.96 | 0.95 | 0.97 |
| | CD | temp | -0.05 | -0.07 | -0.03 | 0.00 | 0.95 | 0.93 | 0.97 |
| | RD | temp | -0.05 | -0.08 | -0.02 | 0.00 | 0.95 | 0.92 | 0.98 |
| 12SPI | NC | temp | -0.04 | -0.06 | -0.03 | 0.00 | 0.96 | 0.95 | 0.98 |
| | CD | temp | -0.04 | -0.07 | -0.02 | 0.00 | 0.96 | 0.93 | 0.98 |
| | RD | temp | -0.05 | -0.08 | -0.02 | 0.00 | 0.95 | 0.93 | 0.98 |
| 3SPEI | NC | temp | -0.04 | -0.05 | -0.02 | 0.00 | 0.96 | 0.95 | 0.98 |
| | CD | temp | -0.04 | -0.07 | -0.02 | 0.00 | 0.96 | 0.93 | 0.98 |
| | RD | temp | -0.05 | -0.08 | -0.02 | 0.00 | 0.95 | 0.93 | 0.98 |
| 12SPEI | NC | temp | -0.04 | -0.06 | -0.02 | 0.00 | 0.96 | 0.95 | 0.98 |
| | CD | temp | -0.04 | -0.07 | -0.02 | 0.00 | 0.96 | 0.93 | 0.98 |
| | RD | temp | -0.05 | -0.07 | -0.02 | 0.00 | 0.95 | 0.93 | 0.98 |

¹No drought used as reference. *NC, natural cause, CD, cardiovascular disease, RD, respiratory disease, ID, infectious disease, SU, suicide, temp, temperature

Table S6. Syedpur significant results with covariates for Model 1

| Drought Index | Mortality Category | Factors | B | Lower | Upper | P | EXP(B) | Lower | Upper |
|---------------|--------------------|----------|-------|-------|-------|------|--------|-------|-------|
| 3SPI | NC | temp | -0.05 | -0.07 | -0.02 | 0.00 | 0.96 | 0.93 | 0.98 |
| | CD | temp | -0.04 | -0.07 | 0.00 | 0.04 | 0.97 | 0.93 | 1.00 |
| | RD | temp | -0.06 | -0.09 | -0.02 | 0.00 | 0.94 | 0.91 | 0.98 |
| | ID | temp | -0.05 | -0.10 | -0.01 | 0.02 | 0.95 | 0.91 | 0.99 |
| | SU | Humidity | 0.09 | 0.00 | 0.18 | 0.04 | 1.10 | 1.00 | 1.20 |
| 12SPI | NC | temp | -0.05 | -0.07 | -0.02 | 0.00 | 0.95 | 0.93 | 0.98 |
| | RD | temp | -0.06 | -0.09 | -0.02 | 0.00 | 0.94 | 0.91 | 0.98 |
| | ID | temp | -0.06 | -0.11 | -0.01 | 0.03 | 0.94 | 0.90 | 0.99 |
| 3SPEI | NC | temp | -0.05 | -0.07 | -0.03 | 0.00 | 0.95 | 0.93 | 0.97 |
| | CD | temp | -0.04 | -0.07 | 0.00 | 0.04 | 0.96 | 0.93 | 1.00 |
| | RD | temp | -0.07 | -0.10 | -0.03 | 0.00 | 0.94 | 0.90 | 0.97 |
| | ID | temp | -0.07 | -0.12 | -0.02 | 0.01 | 0.94 | 0.89 | 0.98 |
| | NC | temp | -0.04 | -0.07 | -0.02 | 0.00 | 0.96 | 0.94 | 0.98 |
| | RD | temp | -0.06 | -0.09 | -0.02 | 0.00 | 0.94 | 0.91 | 0.98 |

¹No drought used as reference. *NC, natural cause, CD, cardiovascular disease, RD, respiratory disease, ID, infectious disease, SU, suicide, temp, temperature

Table S7: Bogra significant results with covariates for Model 2

| Drought Index | Mortality Category | Factors | B | Lower | Upper | P | EXP(B) | Lower | Upper |
|---------------|--------------------|----------|-------|-------|-------|------|--------|-------|-------|
| 3SPI | NC | Humidity | 0.01 | 0.00 | 0.03 | 0.06 | 1.01 | 1.00 | 1.03 |
| | NC | THE (\$) | -0.09 | -0.14 | -0.05 | 0.00 | 0.91 | 0.87 | 0.96 |
| | RD | THE (\$) | -0.14 | -0.24 | -0.04 | 0.01 | 0.87 | 0.78 | 0.97 |
| 12SPI | NC | THE (\$) | -0.10 | -0.15 | -0.05 | 0.00 | 0.90 | 0.86 | 0.95 |
| | RD | THE (\$) | -0.16 | -0.26 | -0.06 | 0.00 | 0.85 | 0.77 | 0.94 |
| | NC | Humidity | 0.01 | 0.00 | 0.03 | 0.05 | 1.01 | 1.00 | 1.03 |
| 3SPEI | NC | THE (\$) | -0.09 | -0.14 | -0.05 | 0.00 | 0.91 | 0.87 | 0.95 |
| | RD | THE (\$) | -0.16 | -0.27 | -0.06 | 0.00 | 0.85 | 0.77 | 0.94 |
| | NC | THE (\$) | -0.10 | -0.15 | -0.05 | 0.00 | 0.90 | 0.86 | 0.95 |
| 12SPEI | RD | THE (\$) | -0.16 | -0.26 | -0.05 | 0.00 | 0.86 | 0.77 | 0.95 |

¹No drought used as reference. *NC, natural cause, CD, cardiovascular disease, RD, respiratory disease, ID, infectious disease, SU, suicide, temp, temperature, THE, total health expenditure.

Table S8: Ishurdi significant results with covariates for Model 2

| Drought Index | Mortality Category | Factors | B | Lower | Upper | P | EXP(B) | Lower | Upper |
|---------------|--------------------|----------|-------|-------|-------|------|--------|-------|-------|
| 3SPI | NC | THE (\$) | -0.08 | -0.14 | -0.02 | 0.01 | 0.92 | 0.87 | 0.98 |
| | RD | THE (\$) | -0.13 | -0.26 | -0.01 | 0.03 | 0.87 | 0.77 | 0.99 |
| | ID | THE (\$) | -0.19 | -0.36 | -0.01 | 0.04 | 0.83 | 0.70 | 0.99 |
| 12SPI | NC | THE (\$) | -0.10 | -0.16 | -0.04 | 0.00 | 0.90 | 0.85 | 0.96 |
| | CD | temp | -0.07 | -0.14 | 0.00 | 0.05 | 0.93 | 0.87 | 1.00 |
| | CD | THE (\$) | -0.11 | -0.20 | -0.02 | 0.02 | 0.90 | 0.82 | 0.98 |
| | ID | temp | -0.14 | -0.26 | -0.02 | 0.02 | 0.87 | 0.77 | 0.98 |
| | ID | THE (\$) | -0.19 | -0.36 | -0.03 | 0.02 | 0.82 | 0.70 | 0.97 |
| 3SPEI | NC | THE (\$) | -0.08 | -0.14 | -0.01 | 0.02 | 0.93 | 0.87 | 0.99 |
| | RD | THE (\$) | -0.14 | -0.27 | -0.01 | 0.03 | 0.87 | 0.77 | 0.99 |
| | ID | temp | -0.13 | -0.25 | -0.01 | 0.03 | 0.88 | 0.78 | 0.99 |
| | ID | THE (\$) | -0.18 | -0.33 | -0.03 | 0.02 | 0.83 | 0.72 | 0.97 |
| 12SPEI | NC | THE (\$) | -0.09 | -0.15 | -0.02 | 0.01 | 0.92 | 0.86 | 0.98 |
| | CD | THE (\$) | -0.10 | -0.19 | 0.00 | 0.04 | 0.91 | 0.83 | 1.00 |
| | ID | temp | -0.14 | -0.26 | -0.03 | 0.02 | 0.87 | 0.77 | 0.98 |
| | ID | THE (\$) | -0.18 | -0.34 | -0.01 | 0.04 | 0.84 | 0.71 | 0.99 |

¹No drought used as reference. *NC, natural cause, CD, cardiovascular disease, RD, respiratory disease, ID, infectious disease, SU, suicide, temp, temperature, THE, total health expenditure

Table S9. Rajshahi significant results with covariates for Model 2

| Drought Index | Mortality Category | Factors | B | Lower | Upper | P | EXP(B) | Lower | Upper |
|---------------|--------------------|-------------|-------|-------|-------|------|--------|-------|-------|
| 3SPI | NC | Temperature | -0.05 | -0.08 | -0.02 | 0.00 | 0.95 | 0.92 | 0.98 |
| | NC | THE (\$) | -0.04 | -0.08 | 0.00 | 0.05 | 0.96 | 0.92 | 1.00 |
| | CD | THE (\$) | -0.07 | -0.14 | 0.00 | 0.04 | 0.93 | 0.87 | 1.00 |
| | RD | Temp | -0.16 | -0.21 | -0.10 | 0.00 | 0.85 | 0.81 | 0.90 |
| | ID | Temp | -0.09 | -0.16 | -0.02 | 0.01 | 0.91 | 0.85 | 0.98 |
| | ID | Humidity | -0.04 | -0.07 | -0.01 | 0.01 | 0.96 | 0.94 | 0.99 |
| 12SPI | NC | Temp | -0.06 | -0.09 | -0.03 | 0.00 | 0.94 | 0.92 | 0.97 |
| | CD | THE (\$) | -0.07 | -0.14 | -0.01 | 0.03 | 0.93 | 0.87 | 0.99 |
| | RD | Temp | -0.16 | -0.21 | -0.10 | 0.00 | 0.86 | 0.81 | 0.91 |
| | ID | Temp | -0.10 | -0.17 | -0.03 | 0.00 | 0.91 | 0.85 | 0.97 |
| | ID | Humidity | -0.04 | -0.07 | -0.01 | 0.00 | 0.96 | 0.94 | 0.99 |
| 3SPEI | NC | Temperature | -0.05 | -0.08 | -0.02 | 0.00 | 0.95 | 0.92 | 0.98 |
| | NC | Humidity | -0.01 | -0.02 | 0.00 | 0.03 | 0.99 | 0.98 | 1.00 |
| | NC | THE (\$) | -0.04 | -0.08 | 0.00 | 0.05 | 0.96 | 0.92 | 1.00 |
| | CD | THE (\$) | -0.07 | -0.14 | -0.01 | 0.03 | 0.93 | 0.87 | 0.99 |
| | RD | Tempe | -0.15 | -0.21 | -0.09 | 0.00 | 0.86 | 0.81 | 0.91 |
| | ID | Temperature | -0.10 | -0.16 | -0.03 | 0.01 | 0.91 | 0.85 | 0.97 |
| 12SPEI | NC | Temperature | -0.06 | -0.09 | -0.03 | 0.00 | 0.94 | 0.92 | 0.97 |
| | NC | Humidity | -0.01 | -0.02 | 0.00 | 0.04 | 0.99 | 0.98 | 1.00 |
| | CD | THE (\$) | -0.07 | -0.13 | 0.00 | 0.05 | 0.94 | 0.88 | 1.00 |
| | RD | Temp | -0.16 | -0.22 | -0.10 | 0.00 | 0.85 | 0.81 | 0.90 |
| | ID | Temperature | -0.11 | -0.18 | -0.05 | 0.00 | 0.89 | 0.83 | 0.95 |
| | ID | Humidity | -0.04 | -0.07 | -0.02 | 0.00 | 0.96 | 0.93 | 0.99 |
| 12SPEI | NC | THE (\$) | -0.10 | -0.21 | 0.00 | 0.05 | 0.90 | 0.81 | 1.00 |

¹No drought used as reference. *NC, natural cause, CD, cardiovascular disease, RD, respiratory disease, ID, infectious disease, SU, suicide, temp, temperature, THE, total health expenditure

Table S10: Rangpur significant results with covariates for Model 2

| Drought Index | Mortality Category | Factors | B | Lower | Upper | P | EXP(B) | Lower | Upper |
|---------------|--------------------|----------|-------|-------|-------|------|--------|-------|-------|
| 3SPI | NC | Temp | -0.05 | -0.08 | -0.01 | 0.01 | 0.95 | 0.92 | 0.99 |
| | CD | Temp | -0.06 | -0.11 | -0.01 | 0.02 | 0.94 | 0.89 | 0.99 |
| 12SPI | NC | Temp | -0.05 | -0.08 | -0.01 | 0.01 | 0.96 | 0.92 | 0.99 |
| | RD | THE (\$) | 0.15 | 0.01 | 0.30 | 0.04 | 1.17 | 1.01 | 1.35 |
| 3SPEI | NC | Temp | -0.05 | -0.08 | -0.01 | 0.01 | 0.96 | 0.92 | 0.99 |
| | RD | THE (\$) | 0.15 | 0.01 | 0.28 | 0.04 | 1.16 | 1.01 | 1.33 |
| | SU | THE (\$) | -0.44 | -0.86 | -0.03 | 0.04 | 0.64 | 0.42 | 0.97 |
| 12SPEI | NC | Temp | -0.05 | -0.08 | -0.01 | 0.01 | 0.96 | 0.92 | 0.99 |
| | RD | THE (\$) | 0.16 | 0.01 | 0.31 | 0.03 | 1.17 | 1.01 | 1.36 |

¹No drought used as reference. *NC, natural cause, CD, cardiovascular disease, RD, respiratory disease, ID, infectious disease, SU, suicide, temp, temperature, THE, total health expenditure

Table S11: Syedpur significant results with covariates for Model 2

| Drought Index | Mortality Category | Factors | B | Lower | Upper | P | EXP(B) | Lower | Upper |
|---------------|--------------------|---------|-------|-------|-------|------|--------|-------|-------|
| 3SPI | NC | Temp | -0.05 | -0.10 | 0.00 | 0.04 | 0.95 | 0.90 | 1.00 |
| 12SPI | NC | Temp | -0.06 | -0.11 | -0.01 | 0.03 | 0.94 | 0.90 | 0.99 |
| 3SPEI | NC | Temp | -0.06 | -0.11 | -0.01 | 0.02 | 0.94 | 0.89 | 0.99 |
| 12SPEI | NC | Temp | -0.05 | -0.10 | 0.00 | 0.03 | 0.95 | 0.90 | 1.00 |

¹No drought used as reference. *NC, natural cause, CD, cardiovascular disease, RD, respiratory disease, ID, infectious disease, SU, suicide, temp, temperature, THE, total health expenditure