| Disease | PM2.5 | Rainfall | No. rain days | Max. temperature (ºC) | | | Greenness (NDVI) | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| IRR at 95th perc. | IRR at 95th perc. | IRR at 95th perc. | CF. exposure | IRR at 5th perc. | IRR at 95th perc. | CF. exposure | IRR at 5th perc. | IRR at 95th perc. |
| Pneumonia, Severe | | | | | | | | | |
| Moshi | 1.18 (0.85, 1.60) | 0.87 (0.57, 1.28) | 1.16 (0.90, 1.57) | 28.8 | 1.20 (0.94, 1.62) | 1.28 (0.83, 1.90) | 0.51 | 1.36 (0.96, 2.03) | 1.06 (0.81, 1.40) |
| Siha | 0.84 (0.56, 1.16) | **0.63 (0.43, 0.92)**\* | 1.11 (0.86, 1.42) | 27.2 | 0.95 (0.59, 1.40) | 1.14 (0.91, 1.52) | 0.47 | 1.14 (0.91, 1.50) | 1.01 (0.65, 1.44) |
| Tuberculosis | | | | | | | | | |
| Moshi | 0.82 (0.50, 1.18) | 0.89 (0.51, 1.48) | 0.99 (0.68, 1.50) | 29.2 | 1.06 (0.79, 1.56) | 0.75 (0.40, 1.24) | 0.47 | 1.00 (0.59, 1.74) | 0.95 (0.63, 1.39) |
| Siha | **0.61 (0.32, 0.95)**\* | **0.47 (0.26, 0.86)**\* | 0.75 (0.48, 1.13) | 27.0 | 0.93 (0.43, 1.58) | 1.31 (0.97, 2.03) | 0.47 | 0.83 (0.47, 1.38) | 1.07 (0.54, 3.14) |
| Skin Infection - Fungal | | | | | | | | | |
| Moshi | 0.87 (0.75, 1.01) | 1.04 (0.88, 1.26) | 1.11 (0.99, 1.26) | 27.3 | 0.97 (0.85, 1.11) | 0.89 (0.72, 1.08) | 0.47 | 1.01 (0.86, 1.19) | 1.12 (0.98, 1.28) |
| Siha | **1.33 (1.14, 1.55)**\* | 0.88 (0.75, 1.03) | 1.05 (0.94, 1.18) | 27.2 | 1.10 (0.93, 1.32) | 0.97 (0.86, 1.08) | 0.47 | 1.01 (0.90, 1.12) | 1.16 (0.98, 1.41) |
| Malnutrition | | | | | | | | | |
| Moshi | 1.03 (0.71, 1.48) | 0.92 (0.56, 1.54) | 0.88 (0.62, 1.26) | 28.8 | 1.17 (0.88, 1.67) | 0.93 (0.51, 1.52) | 0.51 | 1.26 (0.81, 2.03) | 0.97 (0.67, 1.34) |
| Siha | 0.84 (0.44, 1.29) | **0.35 (0.20, 0.59)**\* | 1.00 (0.67, 1.50) | 27.2 | 1.11 (0.55, 2.01) | 1.22 (0.85, 1.78) | 0.70 | **3.39 (2.30, 5.40)**\* | 1.96 (0.86, 3.93) |
| Peptic Ulcers | | | | | | | | | |
| Moshi | 1.05 (0.91, 1.24) | 1.05 (0.87, 1.26) | 0.97 (0.86, 1.09) | 28.8 | 1.13 (0.99, 1.31) | 0.96 (0.79, 1.16) | 0.51 | 1.13 (0.97, 1.32) | 0.97 (0.86, 1.09) |
| Siha | 0.94 (0.80, 1.10) | **0.80 (0.68, 0.95)**\* | **1.25 (1.12, 1.40)**\* | 27.2 | 1.11 (0.92, 1.33) | 1.03 (0.92, 1.17) | 0.47 | 1.08 (0.97, 1.21) | 1.07 (0.89, 1.27) |
| Epilepsy | | | | | | | | | |
| Moshi | 1.13 (0.90, 1.42) | 1.02 (0.76, 1.38) | 1.00 (0.81, 1.22) | 29.0 | 1.05 (0.84, 1.27) | 1.11 (0.82, 1.53) | 0.47 | 0.94 (0.71, 1.22) | 1.02 (0.83, 1.26) |
| Siha | 0.98 (0.75, 1.28) | **0.69 (0.52, 0.91)**\* | 0.84 (0.69, 1.03) | 27.2 | 1.02 (0.71, 1.37) | **1.23 (1.02, 1.49)**\* | 0.47 | 0.97 (0.82, 1.16) | 0.91 (0.66, 1.18) |
| Neuroses | | | | | | | | | |
| Moshi | 0.96 (0.72, 1.30) | 0.92 (0.60, 1.38) | 0.79 (0.60, 1.10) | 27.1 | 0.99 (0.72, 1.29) | 1.04 (0.66, 1.65) | 0.51 | **1.78 (1.21, 2.74)**\* | 1.03 (0.74, 1.36) |
| Siha | **0.63 (0.42, 0.88)**\* | 0.91 (0.61, 1.33) | 0.83 (0.61, 1.12) | 26.7 | 0.75 (0.46, 1.14) | 1.14 (0.91, 1.52) | 0.47 | 0.89 (0.59, 1.22) | 0.96 (0.57, 1.42) |
| Psychoses | | | | | | | | | |
| Moshi | 1.18 (0.90, 1.53) | 1.05 (0.75, 1.49) | 0.91 (0.70, 1.15) | 27.3 | 1.00 (0.78, 1.23) | 1.15 (0.82, 1.73) | 0.51 | 1.10 (0.81, 1.52) | 0.93 (0.72, 1.15) |
| Siha | 1.35 (0.94, 1.82) | 0.82 (0.57, 1.15) | 0.92 (0.73, 1.16) | 27.0 | 1.19 (0.79, 1.74) | **1.26 (1.01, 1.62)**\* | 0.47 | 0.92 (0.76, 1.14) | 0.92 (0.66, 1.24) |
| Dysentery | | | | | | | | | |
| Moshi | 1.03 (0.74, 1.82) | 0.98 (0.61, 1.59) | 1.17 (0.85, 1.74) | 29.0 | 1.10 (0.84, 1.58) | 0.73 (0.38, 1.17) | 0.51 | 1.04 (0.64, 1.68) | 1.00 (0.69, 1.43) |
| Siha | **1.47 (1.01, 2.49)**\* | 1.43 (0.88, 2.31) | 1.13 (0.78, 1.66) | 28.8 | 1.44 (0.91, 2.71) | 1.01 (0.72, 1.31) | 0.47 | 0.90 (0.64, 1.22) | 0.85 (0.47, 1.39) |
| Intestinal Worms | | | | | | | | | |
| Moshi | 1.03 (0.90, 1.19) | 0.97 (0.81, 1.16) | 1.02 (0.91, 1.15) | 28.8 | 1.06 (0.94, 1.20) | 1.03 (0.84, 1.22) | 0.47 | 1.06 (0.91, 1.23) | 1.04 (0.93, 1.18) |
| Siha | 1.11 (0.95, 1.29) | **0.74 (0.62, 0.87)**\* | 0.96 (0.86, 1.08) | 27.3 | 1.14 (0.91, 1.40) | 1.08 (0.90, 1.23) | 0.52 | 1.09 (0.99, 1.22) | 1.03 (0.88, 1.21) |
| Neoplasms/Cancer | | | | | | | | | |
| Moshi | 0.95 (0.59, 1.37) | 0.77 (0.45, 1.29) | 1.11 (0.75, 1.64) | 27.1 | 0.95 (0.66, 1.29) | 1.06 (0.62, 1.92) | 0.46 | 0.82 (0.49, 1.31) | 0.91 (0.62, 1.28) |
| Siha | 1.53 (0.85, 2.80) | **0.35 (0.17, 0.66)**\* | 1.27 (0.80, 1.99) | 25.6 | 0.85 (0.34, 1.88) | **3.15 (2.06, 4.97)**\* | 0.38 | 1.40 (0.93, 2.10) | **1.90 (1.09, 3.48)**\* |
| Other Cardiovascular Diseases | | | | | | | | | |
| Moshi | 1.00 (0.80, 1.25) | 1.13 (0.85, 1.51) | 1.20 (0.98, 1.50) | 28.8 | 1.19 (0.98, 1.51) | 0.84 (0.59, 1.13) | 0.51 | 1.05 (0.82, 1.38) | 0.84 (0.67, 1.04) |
| Siha | 1.04 (0.83, 1.33) | 0.83 (0.63, 1.11) | 0.93 (0.75, 1.14) | 27.0 | 0.93 (0.65, 1.26) | **1.29 (1.08, 1.63)**\* | 0.47 | 0.91 (0.76, 1.09) | 0.81 (0.57, 1.06) |
| Mild/Moderate Anemia | | | | | | | | | |
| Moshi | 1.01 (0.83, 1.28) | 1.06 (0.80, 1.40) | 0.95 (0.77, 1.15) | 28.7 | 1.05 (0.87, 1.30) | 1.03 (0.75, 1.36) | 0.47 | 0.92 (0.71, 1.17) | 0.98 (0.81, 1.19) |
| Siha | **0.76 (0.58, 0.97)**\* | 0.78 (0.58, 1.03) | **0.76 (0.62, 0.92)**\* | 27.0 | 1.02 (0.74, 1.36) | **1.26 (1.05, 1.55)**\* | 0.47 | 1.14 (0.95, 1.42) | 0.99 (0.69, 1.29) |
| Caries | | | | | | | | | |
| Moshi | 1.06 (0.76, 1.53) | 1.31 (0.84, 2.11) | 1.25 (0.90, 1.84) | 28.8 | 1.05 (0.80, 1.42) | 0.97 (0.58, 1.55) | 0.47 | 0.95 (0.60, 1.46) | 1.03 (0.73, 1.46) |
| Siha | 0.71 (0.48, 1.11) | 0.93 (0.59, 1.45) | 0.96 (0.71, 1.35) | 27.3 | **1.78 (1.12, 2.87)**\* | 1.25 (0.93, 1.72) | 0.47 | 1.06 (0.75, 1.42) | 1.48 (0.95, 3.23) |
| Poisoning | | | | | | | | | |
| Moshi | 0.88 (0.62, 1.17) | 0.91 (0.61, 1.34) | 0.92 (0.70, 1.22) | 28.8 | 1.19 (0.94, 1.59) | 1.15 (0.73, 1.72) | 0.51 | 0.96 (0.67, 1.39) | 0.85 (0.62, 1.10) |
| Siha | 1.23 (0.90, 1.80) | **0.57 (0.36, 0.85)**\* | **0.66 (0.47, 0.88)**\* | 27.0 | 0.91 (0.51, 1.40) | 1.04 (0.72, 1.35) | 0.40 | 1.04 (0.78, 1.39) | 1.06 (0.61, 1.54) |
| Snake and Insect Bites | | | | | | | | | |
| Moshi | **0.57 (0.40, 0.77)**\* | 0.94 (0.61, 1.48) | 0.76 (0.57, 1.07) | 27.0 | 0.93 (0.71, 1.23) | 0.76 (0.47, 1.15) | 0.47 | 1.25 (0.88, 1.85) | 0.99 (0.73, 1.29) |
| Siha | 1.06 (0.69, 1.45) | **1.56 (1.04, 2.25)**\* | **2.07 (1.59, 2.72)**\* | 26.8 | 0.84 (0.52, 1.26) | 1.10 (0.87, 1.43) | 0.53 | 1.14 (0.86, 1.47) | 0.99 (0.66, 1.36) |
| Substance Abuse | | | | | | | | | |
| Moshi | 0.99 (0.61, 2.23) | 1.02 (0.50, 2.25) | 1.24 (0.76, 2.59) | 28.8 | 1.22 (0.81, 2.25) | 0.73 (0.22, 1.51) | 0.37 | 1.21 (0.51, 3.07) | **3.79 (2.07, 7.37)**\* |
| Siha | **1.87 (1.10, 3.72)**\* | 0.57 (0.24, 1.21) | 1.02 (0.62, 1.68) | 26.7 | 1.44 (0.54, 3.21) | **1.99 (1.23, 3.95)**\* | 0.61 | **2.27 (1.40, 4.40)**\* | 0.97 (0.32, 2.05) |
| Fractures | | | | | | | | | |
| Moshi | 0.93 (0.73, 1.19) | 1.01 (0.74, 1.41) | 1.02 (0.82, 1.29) | 28.7 | 1.03 (0.84, 1.29) | 0.96 (0.67, 1.34) | 0.51 | 1.16 (0.89, 1.53) | 1.03 (0.84, 1.27) |
| Siha | 0.90 (0.69, 1.18) | 1.02 (0.74, 1.38) | 1.12 (0.88, 1.41) | 26.8 | 0.85 (0.56, 1.20) | **1.31 (1.08, 1.69)**\* | 0.47 | 0.92 (0.76, 1.14) | 0.77 (0.54, 1.01) |
| Road Traffic Accidents | | | | | | | | | |
| Moshi | 0.80 (0.62, 1.04) | 1.05 (0.74, 1.47) | 0.94 (0.74, 1.19) | 27.3 | 1.01 (0.81, 1.25) | 0.97 (0.69, 1.37) | 0.52 | 1.16 (0.85, 1.57) | **0.76 (0.58, 0.97)**\* |
| Siha | 1.19 (0.90, 1.60) | **0.67 (0.49, 0.91)**\* | 0.86 (0.68, 1.07) | 27.2 | 1.05 (0.75, 1.44) | 1.07 (0.89, 1.31) | 0.47 | 1.02 (0.83, 1.27) | 0.93 (0.62, 1.27) |
| Typhoid | | | | | | | | | |
| Moshi | 0.85 (0.52, 1.64) | 0.83 (0.39, 1.69) | 1.15 (0.62, 2.03) | 28.8 | 1.08 (0.73, 1.73) | 1.02 (0.43, 2.24) | 0.48 | 1.02 (0.47, 2.09) | 1.11 (0.68, 2.07) |
| Siha | 0.96 (0.46, 4.51) | 0.52 (0.18, 1.28) | 0.69 (0.23, 1.31) | 29.1 | 0.76 (0.27, 1.65) | 0.97 (0.59, 1.62) | 0.69 | **126.04 (58.50, 303.22)**\* | 2.04 (0.17, 14.35) |
| Leprosy | | | | | | | | | |
| Moshi | 1.65 (0.65, 4.78) | 1.20 (0.37, 4.76) | 1.22 (0.49, 4.07) | 29.0 | 0.99 (0.49, 1.99) | 0.92 (0.24, 3.42) | 0.47 | 0.65 (0.14, 2.11) | 1.04 (0.44, 3.10) |
| Siha | **21 755.06 (3 075.19, 235 579.40)**\* | 0.76 (0.06, 5.79) | 2.28 (0.57, 11.15) | 28.0 | 4.95 (0.70, 103.24) | 1.62 (0.34, 7.92) | 0.47 | 1.11 (0.33, 3.94) | 1.29 (0.32, 12.29) |
| Schistosomiasis | | | | | | | | | |
| Moshi | 0.98 (0.51, 1.67) | 0.64 (0.27, 1.37) | 1.47 (0.87, 2.76) | 27.1 | 1.01 (0.65, 1.53) | 1.16 (0.56, 2.60) | 0.47 | 1.01 (0.50, 2.02) | 0.99 (0.59, 1.66) |
| Siha | 1.69 (0.93, 4.39) | 0.72 (0.32, 1.58) | 0.71 (0.36, 1.41) | 28.9 | 0.94 (0.32, 2.40) | 0.97 (0.49, 1.56) | 0.36 | **2.30 (1.09, 4.37)**\* | **2.65 (1.08, 6.79)**\* |
| \*: 95% credibility interval excluding 1 | | | | | | | | | |