Supplementary Material

# Supplementary Figures and Tables

**S Table 1.** Distribution of cases of EAEC and subtypes based on age groups among children less than 5 years of age with and without diarrhea.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **EAEC (no. of isolates)** | **Age groups (month)** | **Diarrheal cases** | **Non-diarrheal cases** |  | **OD ratio (95% CI)** | ***P*-value** |
|
|  |  | n | (%) | n | (%) |  |  |  |
|   |   |   |   |   |   |   |   |   |
| t-EAEC (186) | < 6  | 36 | (19.3) | 6 | (16.2) |  | 1.01 (0.40 - 2.34) | >0.9999 |
|  | 7-12 | 76 | (40.9) | 16 | (43.3) |  | 0.75 (0.41 - 1.38) | 0.4119 |
|  | >12 | 74 | (39.8) | 15 | (40.5) |  | 0.79 (0.42 - 1.5) | 0.5063 |
|  |  |  |  |  |  |  |  |  |
| a-EAEC (254) | < 6  | 40 | (15.8) | 3 | (8.1) |  | 2.36 (0.78 - 7.47) | 0.1774 |
|  | 7-12 | 108 | (42.5) | 10 | (27.0) |  | 2.08 (1.05 - 4.26) | 0.0369 |
|  | >12 | 106 | (41.7) | 24 | (64.9) |  | 0.66 (0.39 - 1.12) | 0.1488 |
|  |  |  |  |  |  |  |  |  |
| all EAEC (440) | < 6  | 76 | (17.3) | 9 | (12.2) |  | 1.48 (0.73 - 3.08) | 0.3947 |
|  | 7-12 | 184 | (41.8) | 26 | (35.1) |  | 1.33 (0.78 - 2.23) | 0.3080 |
|  | >12 | 180 | (40.9) | 39 | (52.7) |  | 0.62 (0.38 - 1.00) | 0.0748 |

**S Table 2.** Distribution of EAEC cases according to the season and age groups. D = diarrheal cases; ND = non-diarrheal cases.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Pathogen** | **Variable** | **Warm-humid\*** | **Cold-dry** |  | **OD ratio (95% CI)** | **P-value** |
|  |  | n | (%) | n | (%) |  |  |  |
| EAEC | D (440) | 216 | (49.1 | 224 | (50.9) |  | 0.6575 (0.3926 - 1.095) | 0.1039 |
|  | ND (74) | 44 | (59.5) | 30 | (40.5) |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  a-EAEC | 130 | (51.2) | 124 | (48.8) |  | 1.219 (0.8398 - 1.776) | 0.3346 |
|  |  t-EAEC | 86 | (46.2) | 100 | (53.8) |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  | **Age groups (months)** |  |  |  |  |  |  |  |
| a-EAEC (254) | < 6  | 19 | (7.5) | 21 | (8.3) |  | 0.9323 (0.4958 - 1.830) | 0.8695 |
|  | 7-12 | 53 | (20.9) | 55 | (21.7) |  | 0.9991 (0.6484 - 1.557) | >0.9999 |
|  | >12 | 58 | (22.8) | 48 | 1(8.9) |  | 1.346 (0.8596 - 2.076) | 0.2199 |
|  |  |  |  |  |  |  |  |  |
| t-EAEC (186) | < 6  | 12 | (6.5) | 24 | (12.9) |  | 0.4902 (0.2452 to 0.9791) | 0.056 |
|  | 7-12 | 39 | (21.0) | 37 | (19.9) |  | 1.114 (0.6887 to 1.809) | 0.7061 |
|  | >12 | 35 | (18.8) | 39 | (21.0) |  | 0.9173 (0.5566 to 1.497) | 0.7991 |

**S Table 3. Prevalence of virulence genes combinations among EAEC isolates**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Genotypes** | **Diarrheal isolates (n=440)** |  | **Non-diarrheal isolates(n=74)** |  | **Total** |
| **n** | **%** |  | **n**  | **%** |  | **n** | **%** |
| *aap irp pic* | 32 | 7.3 |  | 2 | 2.7 |  | 34 | 6.6 |
| *aap irp pic aggR* | 27 | 6.1 |  | 3 | 4.1 |  | 30 | 5.8 |
| *aap irp pic astA* | 25 | 5.7 |  | 3 | 4.1 |  | 28 | 5.4 |
| *aap irp* | 18 | 4.1 |  | 5 | 6.8 |  | 23 | 4.5 |
| *aap irp aggR* | 20 | 4.5 |  | 1 | 1.4 |  | 21 | 4.1 |
| *aap irp pic astA aggR* | 17 | 3.9 |  | 2 | 2.7 |  | 19 | 3.7 |
| *aap* | 15 | 3.4 |  | 3 | 4.1 |  | 18 | 3.5 |
| *irp* | 13 | 3.0 |  | 4 | 5.4 |  | 17 | 3.3 |
| *aap irp pic astA aggR aafA pet* | 15 | 3.4 |  | 1 | 1.4 |  | 16 | 3.1 |
| *aap aggR* | 8 | 1.8 |  | 5 | 6.8 |  | 13 | 2.5 |
| *aap irp pic astA aggA* | 11 | 2.5 |  | 1 | 1.4 |  | 12 | 2.3 |
| *aap irp astA aggR aggA* | 9 | 2.0 |  | 2 | 2.7 |  | 11 | 2.1 |
| *aap irp astA* | 10 | 2.3 |  | 1 | 1.4 |  | 11 | 2.1 |
| *aap irp pic astA aafA pet* | 9 | 2.0 |  | 1 | 1.4 |  | 10 | 1.9 |
| *aap irp pic astA aggR aafA* | 9 | 2.0 |  | 1 | 1.4 |  | 10 | 1.9 |
| *aap irp pic astA aggR aggA* | 10 | 2.3 |  | 0 | 0.0 |  | 10 | 1.9 |
| ***pic*** | 3 | 0.7 |  | 6 | 8.1 |  | 9 | 1.7 |
| *aap irp astA aggA* | 7 | 1.6 |  | 2 | 2.7 |  | 9 | 1.7 |
| *aap irp pic astA aggR pet* | 6 | 1.4 |  | 2 | 2.7 |  | 8 | 1.6 |
| *aap pic* | 6 | 1.4 |  | 2 | 2.7 |  | 8 | 1.6 |
| *aap irp pic astA pet* | 7 | 1.6 |  | 1 | 1.4 |  | 8 | 1.6 |
| *aap irp pic aggA* | 8 | 1.8 |  | 0 | 0.0 |  | 8 | 1.6 |
| *aap irp astA aggR* | 5 | 1.1 |  | 2 | 2.7 |  | 7 | 1.4 |
| *irp pic* | 5 | 1.1 |  | 2 | 2.7 |  | 7 | 1.4 |
| *aap irp aggA* | 7 | 1.6 |  | 0 | 0.0 |  | 7 | 1.4 |
| *aap irp pic pet* | 7 | 1.6 |  | 0 | 0.0 |  | 7 | 1.4 |
| *irp pic astA* | 5 | 1.1 |  | 1 | 1.4 |  | 6 | 1.2 |
| *aap pic aggR* | 3 | 0.7 |  | 2 | 2.7 |  | 5 | 1.0 |
| *aap pic astA* | 4 | 0.9 |  | 1 | 1.4 |  | 5 | 1.0 |
| *aap pic astA aggR* | 4 | 0.9 |  | 1 | 1.4 |  | 5 | 1.0 |
| *irp pic aggR* | 4 | 0.9 |  | 1 | 1.4 |  | 5 | 1.0 |
| *aap irp aafA* | 5 | 1.1 |  | 0 | 0.0 |  | 5 | 1.0 |
| *aap irp aggR aggA* | 5 | 1.1 |  | 0 | 0.0 |  | 5 | 1.0 |
| *irp astA* | 5 | 1.1 |  | 0 | 0.0 |  | 5 | 1.0 |
| *aap irp pic aggR aggA* | 4 | 0.9 |  | 0 | 0.0 |  | 4 | 0.8 |
| *aap irp pic aggR pet* | 4 | 0.9 |  | 0 | 0.0 |  | 4 | 0.8 |
| *irp aggR* | 4 | 0.9 |  | 0 | 0.0 |  | 4 | 0.8 |
| *aap astA aggR* | 1 | 0.2 |  | 2 | 2.7 |  | 3 | 0.6 |
| *aap pic aggR aggA* | 1 | 0.2 |  | 2 | 2.7 |  | 3 | 0.6 |
| *aap aggR aggA* | 3 | 0.7 |  | 0 | 0.0 |  | 3 | 0.6 |
| *aap astA* | 3 | 0.7 |  | 0 | 0.0 |  | 3 | 0.6 |
| *aap irp pic astA aafA* | 3 | 0.7 |  | 0 | 0.0 |  | 3 | 0.6 |
| *irp astA aggA* | 3 | 0.7 |  | 0 | 0.0 |  | 3 | 0.6 |
| *irp pic astA aggR* | 3 | 0.7 |  | 0 | 0.0 |  | 3 | 0.6 |
| *irp pic astA aggR aafA* | 3 | 0.7 |  | 0 | 0.0 |  | 3 | 0.6 |
| *irp pic astA aggR aafA pet* | 3 | 0.7 |  | 0 | 0.0 |  | 3 | 0.6 |
| *aap aggA* | 1 | 0.2 |  | 1 | 1.4 |  | 2 | 0.4 |
| *irp astA aggR* | 1 | 0.2 |  | 1 | 1.4 |  | 2 | 0.4 |
| *pic aggR* | 1 | 0.2 |  | 1 | 1.4 |  | 2 | 0.4 |
| *aap aafA* | 2 | 0.5 |  | 0 | 0.0 |  | 2 | 0.4 |
| *aap astA aafA pet* | 2 | 0.5 |  | 0 | 0.0 |  | 2 | 0.4 |
| *aap irp aggR aafA* | 2 | 0.5 |  | 0 | 0.0 |  | 2 | 0.4 |
| *aap irp astA aggR aafA pet* | 2 | 0.5 |  | 0 | 0.0 |  | 2 | 0.4 |
| *aap irp pic aggR aafA pet* | 2 | 0.5 |  | 0 | 0.0 |  | 2 | 0.4 |
| *aap irp pic astA aafA aggA pet* | 2 | 0.5 |  | 0 | 0.0 |  | 2 | 0.4 |
| *aap pic aggA* | 2 | 0.5 |  | 0 | 0.0 |  | 2 | 0.4 |
| *astA aggA* | 2 | 0.5 |  | 0 | 0.0 |  | 2 | 0.4 |
| *irp astA aafA* | 2 | 0.5 |  | 0 | 0.0 |  | 2 | 0.4 |
| *irp pet* | 2 | 0.5 |  | 0 | 0.0 |  | 2 | 0.4 |
| *irp pic astA aggR aggA* | 2 | 0.5 |  | 0 | 0.0 |  | 2 | 0.4 |
| *aap pic astA aggR* | 0 | 0.0 |  | 1 | 1.4 |  | 1 | 0.2 |
| *aap irp astA aggR aafA* | 0 | 0.0 |  | 1 | 1.4 |  | 1 | 0.2 |
| *aap irp aggR pet* | 0 | 0.0 |  | 1 | 1.4 |  | 1 | 0.2 |
| *aap irp pic astA aggR aafA aggA* | 0 | 0.0 |  | 1 | 1.4 |  | 1 | 0.2 |
| *aap irp pic astA aggR aafA aggA pet* | 0 | 0.0 |  | 1 | 1.4 |  | 1 | 0.2 |
| *aap irp pic astA aggR aggA pet* | 0 | 0.0 |  | 1 | 1.4 |  | 1 | 0.2 |
| *irp pic astA aggR pet* | 0 | 0.0 |  | 1 | 1.4 |  | 1 | 0.2 |
| *pic irp aggR* | 0 | 0.0 |  | 1 | 1.4 |  | 1 | 0.2 |
| *aafA* | 1 | 0.2 |  | 0 | 0.0 |  | 1 | 0.2 |
| *aap aggR aafA pet* | 1 | 0.2 |  | 0 | 0.0 |  | 1 | 0.2 |
| *aap astA aafA* | 1 | 0.2 |  | 0 | 0.0 |  | 1 | 0.2 |
| *aap astA aggA* | 1 | 0.2 |  | 0 | 0.0 |  | 1 | 0.2 |
| *aap irp astA aggR* | 1 | 0.2 |  | 0 | 0.0 |  | 1 | 0.2 |
| *aap irp astA aggR aafA aggA pet* | 1 | 0.2 |  | 0 | 0.0 |  | 1 | 0.2 |
| *aap irp aafA aggA* | 1 | 0.2 |  | 0 | 0.0 |  | 1 | 0.2 |
| *aap irp aggR aafA pet* | 1 | 0.2 |  | 0 | 0.0 |  | 1 | 0.2 |
| *aap irp astA aggR aafA aggA* | 1 | 0.2 |  | 0 | 0.0 |  | 1 | 0.2 |
| *aap irp pic aafA* | 1 | 0.2 |  | 0 | 0.0 |  | 1 | 0.2 |
| *aap irp pic aafA pet* | 1 | 0.2 |  | 0 | 0.0 |  | 1 | 0.2 |
| *aap pic aafA* | 1 | 0.2 |  | 0 | 0.0 |  | 1 | 0.2 |
| *aap pic aggR aggA pet* | 1 | 0.2 |  | 0 | 0.0 |  | 1 | 0.2 |
| *aggR* | 1 | 0.2 |  | 0 | 0.0 |  | 1 | 0.2 |
| *astA* | 1 | 0.2 |  | 0 | 0.0 |  | 1 | 0.2 |
| *irp aafA* | 1 | 0.2 |  | 0 | 0.0 |  | 1 | 0.2 |
| *irp astA aggR aggA* | 1 | 0.2 |  | 0 | 0.0 |  | 1 | 0.2 |
| *irp pic aggA* | 1 | 0.2 |  | 0 | 0.0 |  | 1 | 0.2 |
| *irp pic astA aafA* | 1 | 0.2 |  | 0 | 0.0 |  | 1 | 0.2 |
| *irp pic astA pet* | 1 | 0.2 |  | 0 | 0.0 |  | 1 | 0.2 |
| *irp pic pet* | 1 | 0.2 |  | 0 | 0.0 |  | 1 | 0.2 |
| *pic aggA* | 1 | 0.2 |  | 0 | 0.0 |  | 1 | 0.2 |
| Negative | 14 | 3.2 |   | 1 | 1.4 |   | 15 | 3.1 |