## Supplemental Digital Content 3: Correlation between microbiota richness (Chao1) and diversity (Shannon Index) and children’s body composition (Fat Mass Index (FMI) and Fat Free Mass Index (FFMI) Z scores) and body size (Waist circumference to Height Ratio (WHR) and Body Mass Index (BMI) Z scores) measurements, calculated using Pearson’s test. (\* p < 0.05)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | Richness (Chao1) | | | Diversity (Shannon Index) | | |
|  | n | r | p | pFDR | r | p | pFDR |
| ALL |  |  |  |  |  |  |  |
| **FMI Z Score** | 32 | -0.12 | 0.500 | 0.590 | 0.05 | 0.800 | 0.878 |
| **FFMI Z Score** | 32 | 0.14 | 0.456 | 0.590 | -0.03 | 0.878 | 0.878 |
| **WHR Z Score** | 33 | -0.12 | 0.492 | 0.590 | 0.24 | 0.176 | 0.704 |
| **BMI Z Score** | 36 | 0.09 | 0.590 | 0.590 | 0.04 | 0.838 | 0.878 |
| BOY |  |  |  |  |  |  |  |
| **FMI Z Score** | 18 | -0.31 | 0.213 | 0.284 | 0.02 | 0.943 | 0.985 |
| **FFMI Z Score** | 18 | 0.52 | 0.026 | 0.104 | -0.005 | 0.985 | 0.985 |
| **WHR Z Score** | 17 | 0.17 | 0.504 | 0.504 | 0.03 | 0.887 | 0.985 |
| **BMI Z Score** | 20 | 0.30 | 0.206 | 0.284 | 0.03 | 0.914 | 0.985 |
| GIRL |  |  |  |  |  |  |  |
| **FMI Z Score** | 14 | -0.09 | 0.770 | 0.770 | -0.03 | 0.918 | 0.994 |
| **FFMI Z Score** | 14 | -0.36 | 0.201 | 0.402 | -0.002 | 0.994 | 0.994 |
| **WHR Z Score** | 16 | -0.40 | 0.12 | 0.402 | 0.40 | 0.128 | 0.512 |
| **BMI Z Score** | 16 | -0.26 | 0.324 | 0.432 | 0.03 | 0.917 | 0.994 |