

Supplementary Materials:

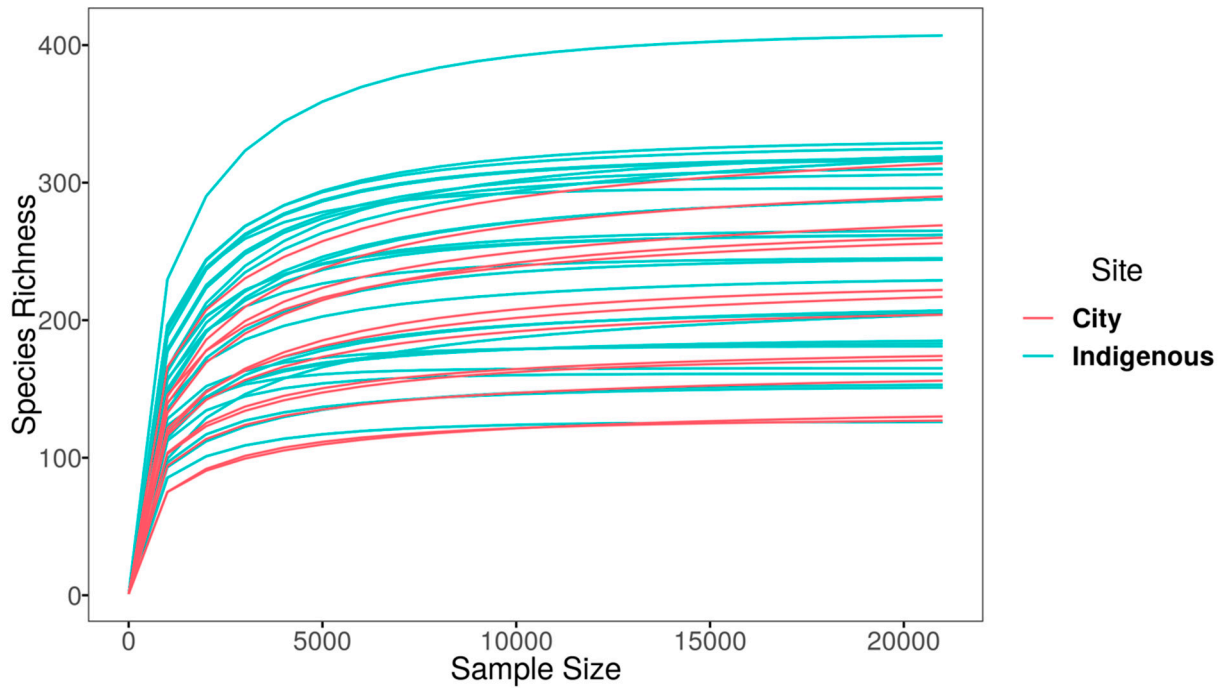


Figure S1. Accumulation curve of 16S amplicon libraries from each individual in the study. Mexico City and Me'phaa children are represented in pink and blue respectively. Phylotypes were based on ASV sequence identity.

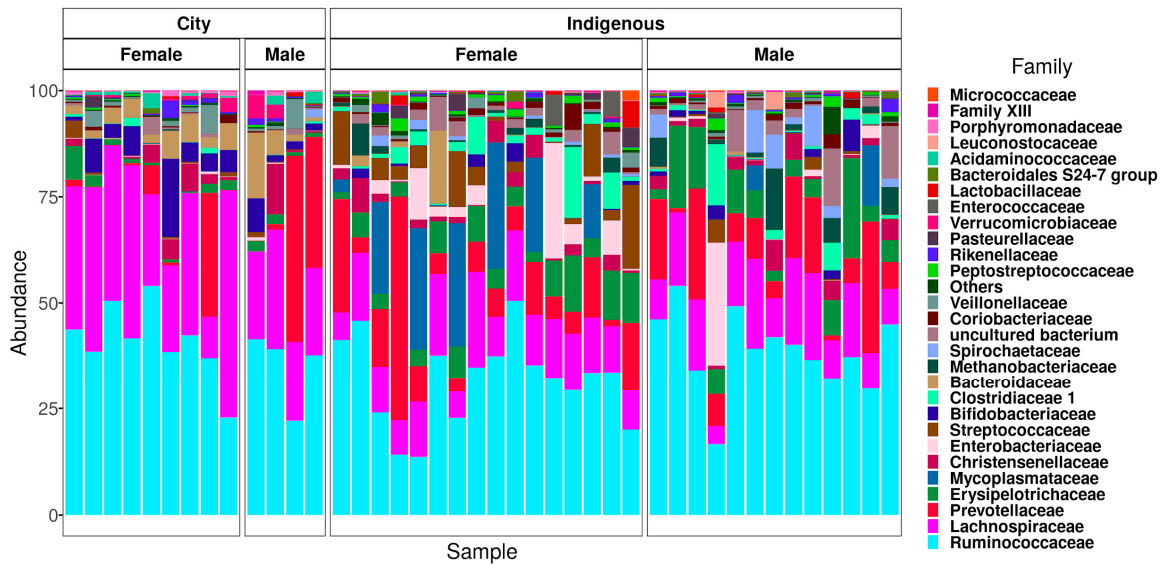


Figure S2. Distribution of bacterial composition (16S rDNA V4) at family level of male and female children from Mexico City and the Me'phaa community, families with relative abundances < 1 % were agglomerated in the "Others" category.

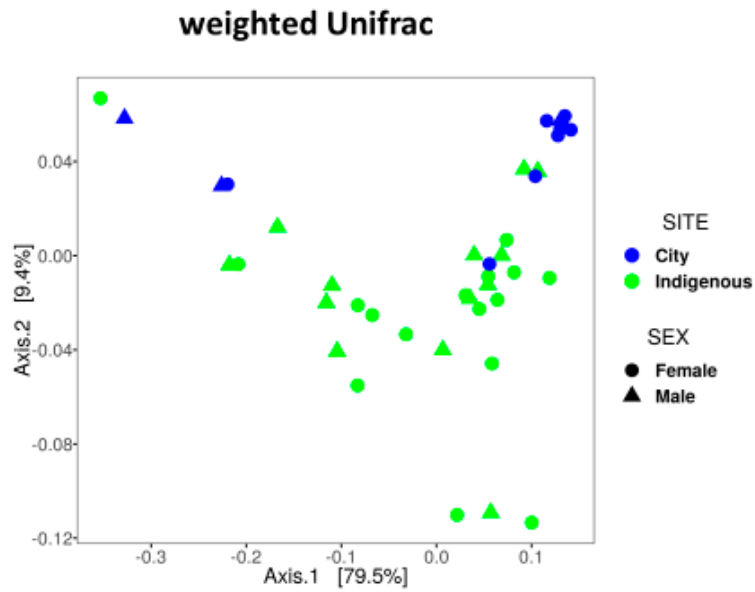


Figure S3. Weighted Unifrac Analysis. The GM of two communities represented in this study (City = Mexico City (blue); indigenous = Me'phaa (green)). Sex is showed with a circle for males and a triangle for females (PERMANOVA: F=2.79; p= 0.08).

| Mexico City | |
|----------------------|--------------------|
| Phylum | Relative abundance |
| Firmicutes | 77.103613522 |
| Bacteroidetes | 14.8497693691 |
| Actinobacteria | 5.3471919457 |
| Verrumicrobia | 1.1493073747 |
| Proteobacteria | 0.744833246 |
| Tenericutes | 0.5744705016 |
| Spirochaetae | 0.1458158544 |
| Cyanobacteria | 0.0560548385 |
| Euryarchaeota | 0.027477862 |
| Fusobacteria | 0.000732743 |
| Elusimicrobia | 0.0003663715 |
| Saccharibacteria | 0.0003663715 |
| Indigenous (Me'phaa) | |

| Phylum | Relative abundance |
|---------------------|--------------------|
| Firmicutes | 68.0491496599 |
| Bacteroidetes | 12.0734693878 |
| Tenericutes | 8.7302721088 |
| Proteobacteria | 4.4933673469 |
| Actinobacteria | 2.4447278912 |
| Euryarchaeota | 2.1181972789 |
| Spirochaetae | 1.6964285714 |
| Cyanobacteria | 0.2472789116 |
| Verruimicrobia | 0.0826530612 |
| Chloroflexi | 0.0163265306 |
| Elusimicrobia | 0.0120748299 |
| Deinococcus-Thermus | 0.0079931973 |
| Acidobacteria | 0.0071428571 |
| Fibrobacteres | 0.0049319728 |
| Planctomycetes | 0.0040816327 |
| Gemmatimonadetes | 0.0035714286 |
| Fusobacteria | 0.0034013605 |
| Latescibacteria | 0.0022108844 |
| Nitrospirae | 0.0011904762 |
| Lentisphaerae | 0.0010204082 |
| Hydrogenedentes | 0.0003401361 |
| Aminicenantes | 0.000170068 |

Supplementary Table S1. Relative abundances of the most abundant phyla found in fecal samples from children in Mexico City and the Me'phaa communities.

| Individual Code | Group | Sex | Age | Height (m) | Weight (kg) | BMI |
|-----------------|-------------|-----|-----|------------|-------------|-------|
| A27 | Mexico City | M | 6 | 1.26 | 22.7 | 14.29 |

| | | | | | | |
|-----|-------------|---|----|------|------|---------|
| A36 | Mexico City | M | 9 | 1.34 | 28.2 | 15.7 |
| A09 | Mexico City | F | 7 | 1.21 | 27.4 | 18.71 |
| A07 | Mexico City | F | 6 | 1.22 | 23.9 | 16.05 |
| A35 | Mexico City | M | 11 | 1.43 | 37 | 18.09 |
| A13 | Mexico City | F | 9 | 1.37 | 42.6 | 22.69 * |
| A31 | Mexico City | F | 5 | 1.14 | 17.4 | 13.38 |
| A20 | Mexico City | F | 10 | 1.44 | 42.6 | 20.54 |
| A26 | Mexico City | F | 9 | 1.46 | 37 | 17.35 |
| A16 | Mexico City | F | 8 | 1.34 | 25.9 | 14.42 |
| A05 | Mexico City | F | 6 | 1.16 | 22.9 | 17.01 |
| A29 | Mexico City | F | 9 | 1.39 | 42.6 | 22.04 * |
| A24 | Mexico City | M | 6 | 1.16 | 21 | 15.6 |
| 103 | Me'phaa | F | 7 | 1.07 | 17.6 | 15.37 |
| 82 | Me'phaa | F | 5 | 1.02 | 15.4 | 14.8 |
| 101 | Me'phaa | M | 9 | 1.2 | 21.5 | 14.93 |
| 136 | Me'phaa | F | 8 | 1.19 | 20.5 | 14.4 |
| 151 | Me'phaa | F | 6 | 0.9 | 14.7 | 18.14 |
| 96 | Me'phaa | M | 8 | 1.19 | 19.7 | 13.9 |
| 114 | Me'phaa | M | 6 | 1.04 | 18.1 | 16.73 |
| 76 | Me'phaa | M | 6 | 1.18 | 20.7 | 14.86 |
| 135 | Me'phaa | M | 10 | 1.26 | 23 | 14.48 |
| 92 | Me'phaa | F | 6 | 1.09 | 16.2 | 13.63 |
| 117 | Me'phaa | F | 9 | 1.26 | 26.4 | 16.62 |
| 131 | Me'phaa | M | 9 | 1.27 | 27.7 | 17.17 |
| 109 | Me'phaa | F | 9 | 1.22 | 21.2 | 14.24 |
| 102 | Me'phaa | M | 8 | 1.12 | 17.8 | 14.19 |
| 95 | Me'phaa | M | 10 | 1.34 | 29.1 | 16.2 |
| 27 | Me'phaa | F | 7 | 1.07 | 16.6 | 14.49 |

| | | | | | | |
|----|---------|---|----|------|------|---------|
| 50 | Me'phaa | M | 7 | 1.11 | 22.3 | 18.09 |
| 6 | Me'phaa | F | 8 | 1.02 | 18 | 17.3 |
| 49 | Me'phaa | M | 9 | 1.15 | 24.7 | 18.67 |
| 28 | Me'phaa | M | 6 | 0.97 | 15.1 | 16.04 |
| 24 | Me'phaa | F | 6 | 1.03 | 19 | 17.9 |
| 4 | Me'phaa | M | 5 | 0.86 | 17.3 | 23.39 * |
| 51 | Me'phaa | M | 5 | 0.99 | 17.8 | 18.16 |
| 13 | Me'phaa | F | 8 | 1.17 | 21.5 | 15.7 |
| 63 | Me'phaa | F | 6 | 1.09 | 15.6 | 13.13 |
| 45 | Me'phaa | F | 10 | 1.24 | 25.2 | 16.38 |
| 22 | Me'phaa | F | 10 | 1.31 | 44 | 25.63 * |
| 23 | Me'phaa | F | 8 | 1.05 | 18.3 | 16.59 |
| 10 | Me'phaa | F | 7 | 1.07 | 21 | 18.34 |

Supplementary Table S2. Table containing anthropometric data, including height, weight, and BMI from children of both groups [79]. * corresponds to BMI of children with obesity