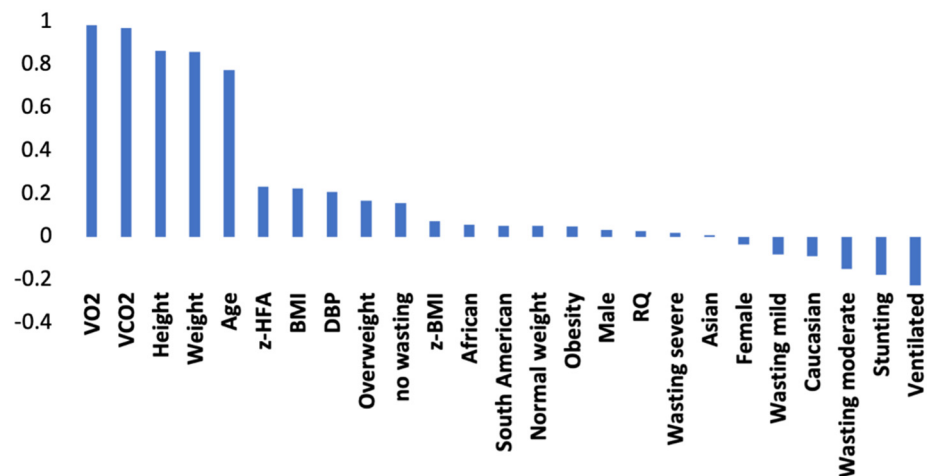**Supplementary Materials**

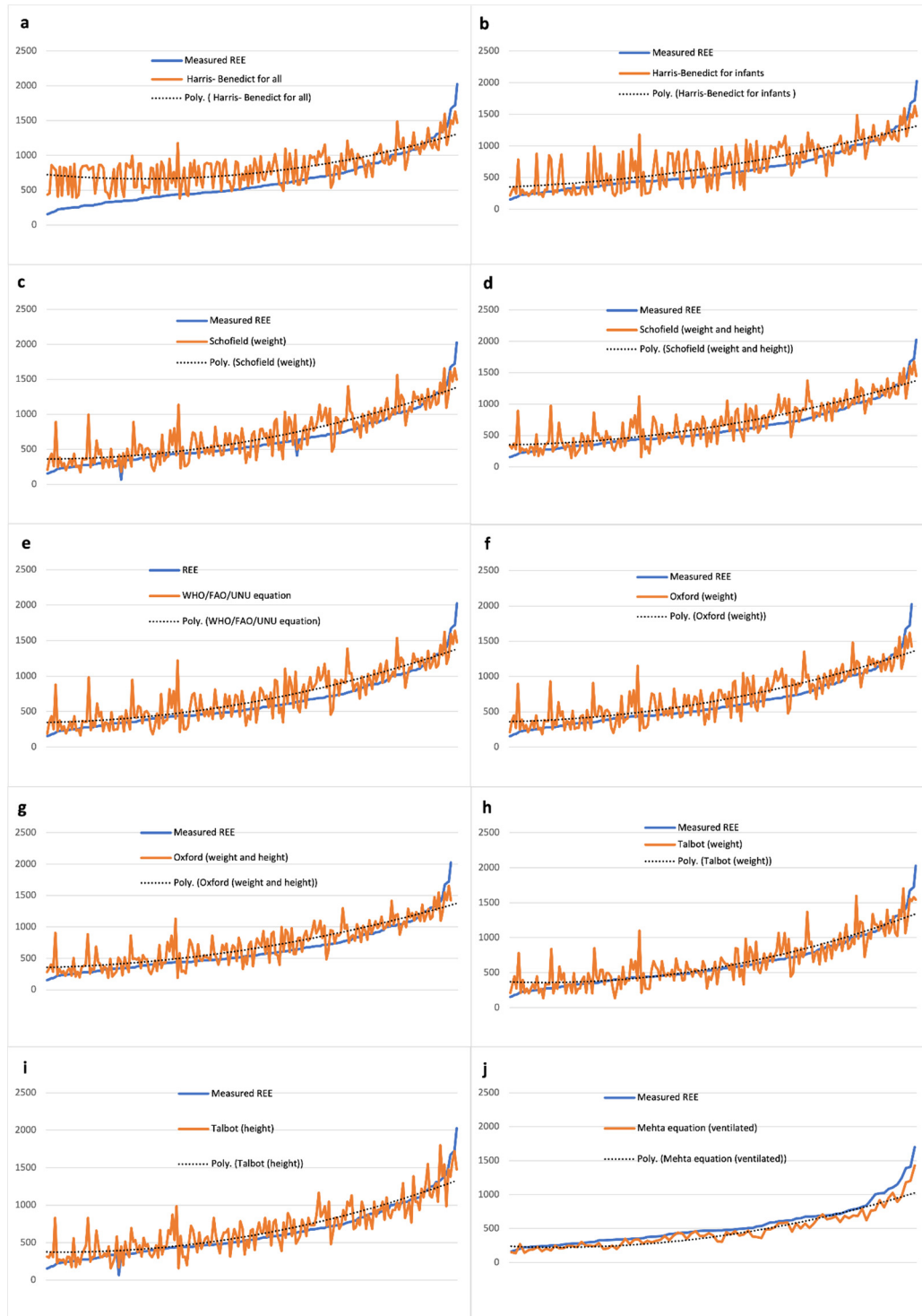**Additional File S1 (PNG format)**

Additional File S1 shows the correlations between the original study variables and the

REE value from Data set 2.

Additional File S1. Correlations between the original study variables and the REE value from Data set 2. Legend. Abbreviations: VO$_2$= Oxygen Consumption; VCO$_2$= Carbone Dioxide Production; RQ= Respiratory Quotient BMI= Body Mass Index. z-BMI= z-score BMI; z-HFA= z-score Height for Age.

Additional File S2 (PNG format)

Additional File S2 shows the Real REE approximation with predictive equations from

Data set 2

Additional File S2. Real REE approximation with predictive equations from Data set 2. Legend. Harris-Benedict for all (**a**), Harris-Benedict for infants (**b**), Schofield (weight) (**c**), Schofield (weight and height) (**d**), WHO/FAO/UNU equation (**e**), Oxford (weight) (**f**), Oxford (weight and height) (**g**), Talbot (weight) (**h**), Talbot (height) (**i**), Mehta equation in ventilated children (**j**).