To determine if children’s moderate to vigorous physical activity (MVPA) and sedentary time varied across levels of household income in countries at different levels of Human Development Index (HDI), consistent with the theory of epidemiological transition. Methods: Data from 6548 children (55% girls) aged 9–11 years from 12 countries at different HDI levels are used in this analysis to assess MVPA and sedentary time (measured using ActiGraph accelerometers) across levels of household income. Least-square means are estimated separately for boys and girls at the estimated 10th, 50th, and 90th percentiles of HDI for the sample. Results: For boys, time in MVPA is negatively associated with income at the 10th and 50th percentiles of HDI (both $P < .002$). For girls, time in MVPA is negatively associated with income at the 10th and 50th percentiles of HDI (all $P < .01$) and positively related with income at the 90th percentile ($P = .04$). Sedentary time is positively associated with income at the 10th percentile of HDI for boys ($P = .03$), but not for girls. Conclusions: Results support the possibility of an epidemiological transition in physical activity, with lower levels of MVPA observed at opposite levels of income depending on the HDI percentile. This phenomenon was not observed for sedentary time