Abstract Background Physical activity (PA) is associated with numerous health benefits among children and youth. However, few studies have examined how active transportation (AT) and device-based measures of PA vary within and between countries in sub-Saharan Africa. Purpose This cross-sectional study sought to investigate the prevalence and correlates of AT and device-measured PA among children living in urban, peri-urban and rural areas in three African countries representing Eastern, Western and Southern regions of Africa. Methods 3,205 participants (53.3% girls; 46.7% boys) aged 10–12 years were recruited in Kenya, Nigeria and Mozambique. Data were collected using a child questionnaire, a parent/guardian questionnaire and PiezoRx® pedometers. ANCOVA and binary logistic regression analyses were used to examine the correlates of AT and PA while controlling for gender, age, parent education and vehicle ownership. Results Participants accumulated an average of 45.6±23.5 min/day of moderate-to-vigorous physical activity (MVPA) and 11,215±4,273 steps/day. Kenyan and Mozambican children were significantly more active than their Nigerian counterparts ($p<0.001$). Only 23% met the MVPA guidelines of 60 min/day. 65.1% of participants engaged in AT to school (and 67.8% for the trip back home) with no gender differences. Living in a rural area, lower parent education, lower vehicle ownership and higher motorcycle ownership were associated with higher odds of AT. Other correlates of AT were country specific. Girls accumulated less daily MVPA than boys in all countries. MVPA was positively associated with living in less urbanized areas in Nigeria and Mozambique. In Kenya, lower parental education and AT were associated with higher MVPA. Nigerian children’s daily MVPA decreased with age and the number of parent-perceived barriers to AT. Conclusions Majority of children engaged in AT, but still failed to meet MVPA recommendations. Most correlates of AT and PA were country-specific, suggesting that strategies to encourage both behaviors should be informed by local evidence..