**Introduction**

UK South Asian adults have high risks of coronary heart disease, stroke and type 2 diabetes (T2D) when compared with Europeans; UK African-Caribbean have high risks of stroke and T2D and low coronary heart disease risks. With growing evidence that cardiovascudal disease risks begin before adulthood, we compared risk factor patterns and vascular disease markers in UK children from these ethnic groups.

**Methods**

We conducted a school-based study of cardiovascular risk profiles in 4796 9—10-year-old UK children of South Asian, African-Caribbean and European origin, with subsudies of carotid intimal-medial thickness (cIMT) and carotid-femoral pulse wave velocity (cfPWV) in 939 and 651 children respectively.

**Results**

Compared with Europeans, UK South Asian children had higher adiposity, diastolic BP, insulin resistance, HbA1c and triglyceride levels; their HDL-cholesterol was low. cfPWV was slightly higher in South Asians and cIMT similar. In contrast, African-Caribbean children had lower adiposity, LDL-cholesterol and triglyceride levels and higher diastolic BP; insulin resistance, HbA1c and HDL-cholesterol; both cfPWV and cIMT were higher in African-Caribbeans. cIMT was positively associated with systolic and diastolic BP, while cfPWV was positively associated with adiposity, diastolic BP and insulin resistance. However, adjustment for these risk factors had little effect on the ethnic differences in cfPWV and cIMT observed.

**Conclusion**

Appreciable ethnic differences both in cardiovascular risk factors and vascular disease markers are apparent in children before puberty, which are substantially consistent with adult cardiovascular disease patterns. There may be important opportunities for cardiovascular disease prevention before adult life in high-risk ethnic minority groups.

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Cardiovascular disease (CVD) is the leading non communicable disease contributing to more than 17 million deaths annually in the world and in the UK for almost 191 000. The knowledge base related to the aetiology and treatment of CVD has expanded over last few decades informing effective prevention and treatment efforts. The aim of this study was to report trends in expanded over last few decades informing effective prevention and treatment efforts. The aim of this study was to report trends in

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