Table. Odds ratios for diabetes according to gestational age at birth.

	<35 weeks	35 to <37 weeks	37 to <42 weeks (Term)	≥42 weeks
N of subjects with diabetes/total N	21/173 (12.1%)	20/496 (4.0%)	606/10783 (5.6%)	84/1146 (7.3%)
Model 1	2.23 (1.40 to 3.55)	0.69 (0.43 to 1.08)	1.0	1.25 (0.99 to 1.59)
Model 2	2.12 (1.24 to 3.63)	0.72 (0.44 to 1.18)	1.0	1.20 (0.93 to 1.54)

Model 1: adjusted for sex and year of birth. Model 2: adjusted for sex, year of birth, mother's BMI during late pregnancy, socio-economic status in childhood, parity and birth weight relative to duration of gestation.

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Intergenerational effects on ischemic heart disease risk: The Guangzhou Biobank Cohort Study

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Background: Sexual divergence in premature morbidity and mortality from ischemic heart disease (IHD) widens with economic development. We have previously hypothesized and shown in recently developed or developing populations that pre-adult environment has sex-specific impacts on IHD risk, perhaps because of environmentally driven increases in pubertal sex-steroids. Both maternal and contemporaneous pubertal environment may affect pubertal sex-steroids. Here, in a rapidly developing southern Chinese population, we tested the hypothesis that maternal environment distinct from paternal environment (both proxied by literacy) also has sex-specific impacts on IHD risk (proxied by Framingham score).
Methods: In 19,748 older (≥50 years) adults from The Guangzhou Biobank Cohort Study (phases 2 and 3) examined in 2005–8, we used multivariable linear regression to assess the adjusted associations of maternal and paternal literacy with Framingham score and whether these associations varied by sex.
Results: Maternal, but not paternal, literacy had different associations with Framingham score by sex. Maternal literacy was associated with lower Framingham score in women (−0.19, 95% confidence interval (CI) −0.32 to −0.07) but not in men (0.09, CI −0.04 to 0.21) adjusted for age, study phase, leg length, seated height, age of menarche (women), life course socio-economic position and paternal literacy.
Conclusions: Intergenerational environmental conditions may have sex-specific impacts on IHD risk, perhaps driven by maternal sex-steroids. To what extent increasing levels of sex-steroids with economic development underlie corresponding changes in patterns of IHD or explain observed intergenerational effects, such as the negative association between birth weight and IHD, remains to be determined.

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Prediction of body fat percentage from skin-fold and bio-impedance measurements in Indian school children

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Objective: Developmental origins research often requires measurement of body composition in large numbers of participants. 'Bedside' methods such as anthropometry and bio-impedance analysis (BIA) are frequently used. South Asians have a more adipose body composition than other ethnic groups for a given Body Mass Index. There are currently no equations developed using a primary reference method for calculating body fat percentage (BF%) from skin-folds or BIA in South Asian children. Our objective was to investigate the agreement between BF% from a primary reference method and that predicted from published skin-fold and BIA equations in Indian children.
Method: We measured BF% using primary reference methods in two groups of Indian children. In Pune, 698 children aged 6 years underwent DEXA scans. We administered Doubly Labelled Water (DLW) to 59 children aged 9 years living in Mysore and from this derived BF% using the equation: BF % = 100 × (Weight − TBW/0.77)/Weight, where TBW = Total Body Water. In both groups, at the time of BF% assessment, we measured sub-scapular and triceps skin-fold, weight, height, and bio-impedance at 50 kHz using standardised methods. We used the published equations of Shaikh (SH)[1] and Slaughter (SL)[2] to calculate BF% from skin-folds and the 'Bodystat' manufacturer's equation to do the same for BIA measurements. We tested the agreement between these calculated values of BF% and those derived from DEXA and DLW. Appropriate institutional ethics committee clearance and informed consent were obtained.
Results: In Pune the mean (SD) weight was 16.2 kg (2.2) and height was 110.0 cm (6.2). The mean (SD) BF% derived from DEXA was 18.2% (4.5) for boys and 21.2 (5.2) for girls. Mean (SD) weight of the Mysore children was 24.1 kg (3.5) and height was 128.2 cm (5.6). BF% from DLW was