Background and Aims A retrospective analysis of healthy Japanese children was conducted to determine whether the growth pattern is altered by breast-feeding (BF) or formula-feeding (FF).

Methods The data of 204 elementary students, age 6 to 9 years, were obtained from their parents by questionnaires. The BF and FF group were defined as those fed by only breast milk or formula at 4 months of age. Seventy-one children (31 boys, 40 girls) were in BF and 30 (19 boys, 11 girls) were in FF. The anthropometric data at birth, 1, 4, 7, 10, 18, 36 months-old and investigation time in BF was compared to those in FF.

Result No significant differences were observed in the anthropometric data between BF and FF girls. The BF boys mean body weight (BW) at 18 months was almost 1,000g lower than those in FF. The BW-SD score was significantly smaller from 4 to 18 months, and BMI was lower from 10 to 36 months in BF boys. However, both BWSD and BMI had no differences between BF and FF boys from 6 to 9 years. Multiple regression analyses showed that the birth weight, prepregnancy BW, and infant feeding choice were significant factors associated with BWSD, and feeding choice was the only significant factor associated with BMI at 18 and 36 months.

Conclusion Infant feeding choices may have gender effect on growth during infancy. When we evaluate infant growth, we should consider not only infant feeding choices, but also gender, birth weight and prepregnancy BW.

1447 WEIGHTING THE FACTORS ASSOCIATED WITH CHILDREN OBESITY: AN INTERNATIONAL PERSPECTIVE TOWARD AN UNIFIED MODEL
doi:10.1136/archdischild-2012-302724.1447
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Beside genetic predisposition, several factors have been proposed to promote overweight and eventually obesity in children, from the socio- and built- environment down to behavioural attitudes (Bouchard, 2007). How this model is shared by different cultural settings is however unclear and less investigated.

Using a unified protocol for data collection, a cross-sectional study has been performed on 960 children in India, Italy, Germany, France, UK, Argentina, Mexico and Brazil. Children CDC z-scores for BMI have been evaluated in association with several known factors influencing overweight and obesity (maternal and neonatal aspects, socio-economic familiar status, BMI of parents, physical activity, nutrition habits, screen activities). Based on a random-effect mixed effect model and the Kullback-Leibler Entropy Measure, the capability to explain variability in BMI of such factors has been computed. Percentages of explained variation are given as follows: India 41.4%, Italy 46.6%, Germany 65.6%, France 52.3%, UK 70.1%, Argentina 62.3%, Brazil 59.7%, Mexico 58.2%. Capability of proposed factors to capture variability in BMI is significantly higher in UK (p<0.05) than in other countries, being significantly lower in an emerging country like India (p=0.042). These results may suggest that more intense research should be specifically targeted to capture risk factors which are specific for that given cultural setting in addition to the general ones.

1448 EARLY FORMULA FEEDING PRACTICES AND THEIR POTENTIAL CONTRIBUTION TO LATER OBESITY RISK
doi:10.1136/archdischild-2012-302724.1448
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Background and Aims Early feeding practices, including early introduction to solid foods and overfeeding, are known risk factors for childhood obesity. This study aimed to assess maternal formula feeding practices and infant formula feeding patterns, factors that are known to potentially contribute to later obesity risk.

Methods This Irish prospective observational study involved the recruitment and follow-up of 450 eligible mother-infant pairs to 6 weeks postpartum. Data related to formula milk consumption patterns, formula type/brand changing, additions of solids to bottle