

The Global Perinatal Package for Growth & Development in the 21st Century: translating the INTERGROWTH-21st Project into clinical practice.

Presenting authors: Stephen Kennedy and Jane Hirst on behalf of the International Fetal and Newborn Growth Consortium for the 21st Century (INTERGROWTH-21st)

Nuffield Department of Obstetrics & Gynaecology, University of Oxford, Oxford University Hospitals NHS Trust and the Oxford Maternal & Perinatal Health Institute, Green Templeton College, University of Oxford, Oxford, UK.

Abstract:

The findings of the INTERGROWTH-21st Project represent an important paradigm shift in our understanding of human growth and development demonstrating that a universal pattern of healthy growth exists from the first trimester of pregnancy until 5 years of age. The INTERGROWTH-21st Consortium have now published international Standards describing optimal gestational age assessment, fetal growth, preterm postnatal growth and newborn size at birth as well as new phenotypic approaches to fetal growth problems and preterm birth (available at intergrowth21.org). Given the scientific rigour and scale of the INTERGROWTH-21st Project, it is anticipated that the new standards and phenotypes will be widely adopted. However, with vested interests and strongly held views regarding the influence of ethnicity on fetal growth, barriers to adoption are anticipated. The challenge will be to reach a consensus on how to evaluate fetuses and newborns so as to: (i) detect individual babies at risk of adverse short- and long-term outcomes and (ii) identify women and populations where action on nutrition, health care and social equity are most needed. The INTERGROWTH-21st Standards provide a robust, universal toolkit developed to meet both these needs. The colour of a woman's skin plays no role in determining the variation in growth compared to social conditions, health and nutritional state. Adjusting growth expectations for ethnicity has no biological basis and risks normalising sub-optimal growth in disadvantaged groups. Failure to appreciate the effects of poor or excessive nutrition *in utero* will have lifelong implications for the health of the child and wellbeing of society.