

New growth standards for infants ignore natural genetic variation

Babies come in all shapes and sizes – or so you might imagine. But according to new international growth charts, a healthy fetus or newborn baby should look broadly the same, regardless of ethnicity or its mother's size.

The charts have been developed to help identify signs of under-nutrition, stunting, wasting or obesity at the earliest possible stage of development, so that they can be addressed.

Yet the new charts go against recommended practice in many countries – including the UK – where midwives or sonographers assessing fetal growth customise their interpretation to take the parents' ethnicity or stature into account.

To combat this problem, the [INTERGROWTH-21st Project](#) pooled data from thousands of healthy, well-fed mothers from the U.S., UK, India, China, Brazil, Oman, Kenya and Italy, using identical equipment and methods to take regular measurements of their fetuses and newborn babies. These were then used to plot standard growth charts, representing what a fetus's abdominal circumference, length of thigh bone and head measurements should look like under optimal conditions. For newborns, they plotted a baby's weight, length and head circumference.

There were some regional differences; for instance, the average birthweight among Indian babies was 2.9 kilograms, versus 3.5 kilograms in the UK. However, Kennedy says the pooling of such data means that the growth curves are representative of healthy babies around the world.

Kennedy acknowledges that there are genetic differences between babies, but says these have a far smaller effect than environmental factors. "Paediatricians have no problem with the idea of international standard for optimal growth from birth until the age of 5," he says. "All we have done is fill in the gap that exists from pregnancy to birth. Mothers need to ask why their babies are monitored in utero using customised charts and ex utero using international WHO charts that apply to all babies worldwide."

Read the full, original story: [All newborns should be similar size in ideal conditions](#)