



INTERGROWTH-21st

The INTERGROWTH-21st app: facilitating the clinical surveillance and follow-up of the growth of preterm infants



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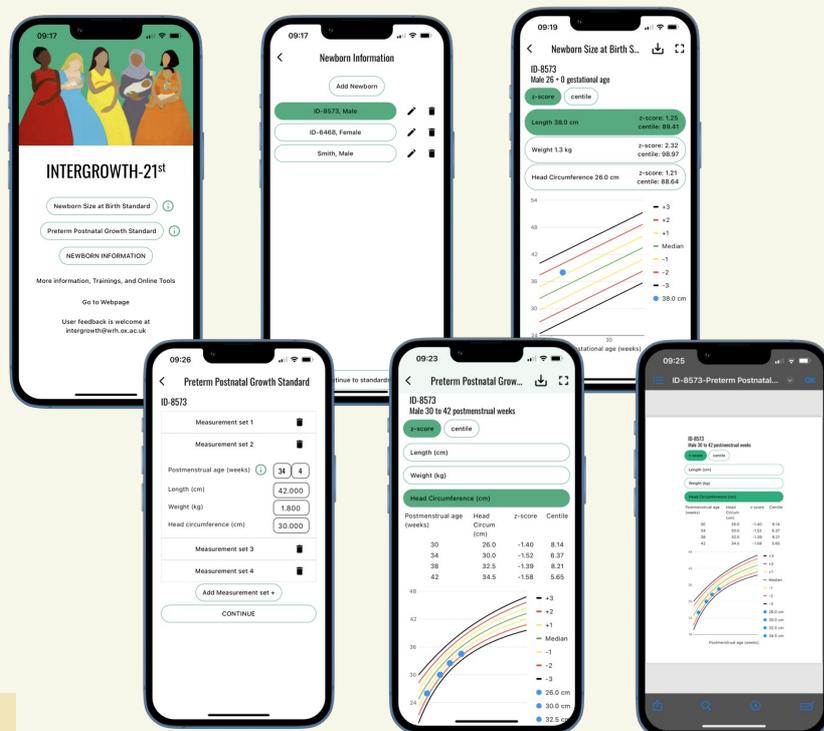
Background

In 2014, the Oxford Maternal and Perinatal Health Institute published the first prescriptive, international standards for assessing newborn size and monitoring the growth of preterm infants from birth. The standards were produced using the same methodology as the WHO Multicentre Growth Reference Study, which led to the publication of the WHO Child Growth Standards.

The INTERGROWTH-21st preterm postnatal growth standards merge seamlessly with the WHO Child Growth standards at 64 weeks postmenstrual age. In the last 10 years, an increasing number of NHS Trusts and healthcare facilities around the world have been using the INTERGROWTH-21st standards.

Methods

Following feedback from collaborating centres in Argentina, Italy and Uruguay, we created a mobile-device based application to facilitate the use of the standards. The tool consists of a free iOS and android app for use on smartphones, computers, and tablets. The weight, length and head circumference of babies, born between 24 and 43 weeks' gestation, can be assessed against the INTERGROWTH-21st newborn size standards. The growth of a preterm baby can then be plotted until age 64 weeks postmenstrual age with the INTERGROWTH-21st preterm postnatal growth standards. Charts with patient data can be downloaded for integration with paper patient files or computer-based systems.



Results

Between March 10th and 22nd August 2024, the INTERGROWTH-21st app was downloaded 1364 times from 51 countries. Argentina, Brazil, and Mexico have some of the largest number of downloads, as the app is being used across hospitals in those countries. The standards are also in electronic patient record systems, ultrasound and picture archiving and communication systems, as well as other apps.

	iOS	Google Play	Total
Total downloads	993	371	1364
Brazil	324	77	401
Mexico	147	61	208
Italy	65	14	79
Russia	69	25	94
United Kingdom	52	7	59
Argentina	59	44	103

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Google Play



iOS



References

Villar J, Giuliani F, Bhutta ZA, Bertino E, Ohuma EO, Ismail LC et al. Postnatal growth standards for preterm infants: the Preterm Postnatal Follow-up Study of the INTERGROWTH-21st Project. *Lancet Glob Health* 2015, 3(11):e681-e691.
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