There is a controversy about which growth chart is more suitable for the identification SGA worldwide. We evaluated the performance of the INTERGROTWH 21st and WHO fetal growth charts for the identification of SGA in a large cohort of deliveries from five centers across three countries in Latin America.

Objective: There is a controversy about which growth chart is more suitable for the identification SGA worldwide. We evaluated the performance of the INTERGROTWH 21st and WHO fetal growth charts for the identification of SGA in a large cohort of deliveries from five centers across three countries in Latin America.

Methods: Prospectively gathered maternity data of all women who gave birth between 24-42 weeks across three countries (Colombia, Peru, Mexico) during 2017-2018 (n=32,318 singleton births). Infants were classified as AGA or SGA (birthweight<10th centile) according to IG21 and WHO standards. Next, we compared among the groups of SGA cases identified by each and both standards, the rate of low Apgar score, ponderal and cephalization indexes.

Results: The rate of SGA detected by the WHO was significantly higher than that detected by INTERGROWTH-21th.

In SGA cases identified only by WHO ponderal and cephalization indexes were also significantly lower in those cases compared to AGA, suggesting features of intrauterine undernutrition in those cases that were assigned as AGA by IG21.

Conclusion: In a large population from Latin America, the WHO standard seems to be able to identify significantly more cases of SGA newborns compared to IG21 and those newborns had a similar pattern of intrauterine malnutrition than the cases of SGA identified by both curves.