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Interpretation of caesarean section classifications

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Caesarean sections (CSs) are among the most common surgeries in the world. When performed for the right indication, this procedure can be life saving for women and babies; however, serious complications may follow in current and future pregnancies. The recent *Lancet* series 'Optimising CS use' underlines the 'global obstetric dilemma' previously identified: all women should have access to essential and safe surgery, but the alarming number of unnecessary CSs must be halted (Visser et al., *Lancet* 2018;392:1286–287, Rijken et al., *Lancet* 2015;386:1941), as these do not result in better health outcomes and harm women and their children.

In order to understand the drivers of the rising trend and to develop and implement effective measures to either reduce CS rates in settings where this is unnecessarily performed or increase CS rates where women lack access, a tool to monitor and compare CS rates is warranted. The World Health Organization (WHO), the Fédération Internationale de Gynécologie et d'Obstétrique (FIGO), and the European Board and College of Obstetrics and Gynaecology (EBCOG) have proposed the robust Robson classification global standard for assessing, monitoring, and comparing CS rates across ten well-defined indication groups (Torloni et al., *PloS One* 2011,20:e14566). The core determinants of classification are based on basic obstetric characteristics routinely collected in most pregnancies at admission and delivery. As such, it is applicable in both high- and low-resource settings and allows for the comparison of CS rates within relatively homogeneous groups of women. For example, in Robson group 1 (nulliparous women with a single cephalic pregnancy,at ≥37 weeks of gestation in spontaneous labour) a CS rate of <10% could be achievable in any setting. In contrast, high CS rates in Robson group 7 [multiparous women with a single breech pregnancy, including women with previous CS(s)] may still indicate good obstetric care. Importantly, the 'unclassifiable group', resulting from missing or incomplete data, is an indicator of the quality of the data routinely collected.

While aiming to describe trends in CS and neonatal mortality and to study inequalities in access to CS in Tanzania, Hanson and colleagues were confronted with large numbers of incomplete files and missing data in population-based household surveys (Hanson et al. *BJOG* 2019; 126:690–700). The authors describe adaptations and merged Robson groups to overcome absent data on essential determinants, such as fetal presentation, previous CS, or gestational age. Although we welcome any effort to disentangle 'too many' and 'too few' CSs in settings where women deliver outside facilities, and although population-based surveys may be the only data available, careful consideration is needed with regards to whether adapting the rigorous Robson classification is the right way forward to allow for a (clinically) meaningful interpretation of the findings. In many settings women's choices are limited to a repeat CS because of a previous CS (Roosmalen et al., *BJOG* 2014;121:909–10). The omission of such crucial information undermines the power of any classification to study trends in CS, and could lead to comparisons between incomparable groups. We conclude that present routine population-based surveys do not provide the information needed to optimally use the Robson classification. We hope that this article will not stimulate researchers to adapt classification systems according to the data available, but will trigger the mechanisms necessary to improve data collection to reflect the evolution of obstetric practice, including the rising numbers of pregnant women with a history of CS. Given the pace at which the global epidemic of unnecessary CS is spreading, this will accelerate the efforts to reduce the number of women and babies at risk of the collateral damage associated with it.

Disclosure of interests

None declared. Completed disclosure of interest forms are available to view online as supporting information. ■