5 Wells JC, Wibaek R, Poullas M. The dual burden of malnutrition increases the risk of cesarean delivery: evidence from India. *Front Public Health* 2018; **6:** 292.

Authors' reply

We are grateful to Suzanne Delport and Jonathan Wells and colleagues for their comments on our analysis of the global epidemiology of caesarean section (CS).[1] We agree with Delport that South Africa has an extremely high prevalence of CS deliveries in private facilities. Data from the South Africa Demographic and Health Survey 2016,[2] which only became available after the publication of our *Lancet* Series paper, suggest a CS prevalence of 61·3 per 100 livebirths in private health facilities, compared with 21·7 per 100 livebirths in public facilities. However, according to the survey, only 8·5% of livebirths in South Africa occur in private health facilities, compared with 87·4% in public health facilities.

The comments of Wells and colleagues, who cite anthropometric data from India, remind us of the complexities underlying wealth-related differences in CS use. The observed trends in stature and body-mass index (BMI) among Indian women of different economic status might contribute to a differential need for CS. The effects of these trends, however, are unlikely to explain the massive inequalities between women in the poorest and women in the richest household wealth quintiles in India: 4·4% of the poorest women and 35·9% of the richest women received a CS in the period 2011–16 according to India's 2015–16 National Family Health Survey.[3] A multivariate logistic regression analysis of the survey data by Wells and colleagues (table 3 in their report)[4] showed that inequalities by wealth persisted after adjusting for stature and BMI (adjusted odds ratio [OR] comparing the wealthiest women with the poorest women 4·83 [95% CI 4·57–5·11]), and the time trends in CS were not explained by changes in stature or BMI (adjusted OR comparing the 2015–16 survey and 2005–06 survey 1·40 [95% CI 1·35–1·45]). Inadequate access among the poorest women and overuse among the richest women remains the most plausible explanation.

We declare no competing interests.

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2 National Department of Health, Statistics South Africa, South African Medical Research Council, and ICF. South Africa Demographic and Health Survey 2016. Pretoria: National Department of Health, 2019.
3 International Institute for Population Sciences and ICF. National Family Health Survey (NFHS 4), 2015–16: India. Mumbai: International Institute for Population Sciences, 2017.
4 Wells JC, Wibaek R, Poullas M. The dual burden of malnutrition increases the risk of caesarean delivery: evidence from India. *Front Public Health* 2018; **6:** 292.

Is high use of caesarean section sometimes justified?

We read with great interest the recent *Lancet* Series on optimising caesarean section (CS) use and, being situated at a tertiary referral centre in Greece—a country with a high prevalence of CS[1] and with shrinking health-care funding due to a prolonged period of austerity—we would like to add our perspective on the topic.

Close care and monitoring of women in labour is key to reducing the use of CS; unfortunately, Greek hospitals have been suboptimally staffed for years, even before the economic crisis, and the crisis has only made things worse. Thus, the setting of a Greek labour ward is quite different from those in other countries, at least in the rest of western Europe. For example, in the UK, one-to-one care is a given, whereas in our setting, only two midwives are available per shift to attend to 7–8 beds in the labour ward. Furthermore, the equipment used is frequently outdated and inadequately maintained, and the training of the personnel involved is sometimes suboptimal, partly attributable to the reductions in health-care expenditure. Thus, proper and close monitoring of women in labour is not possible, and the on-call doctors, having in mind the safety of the mother and fetus, will often be more proactive in performing CS for an immediate delivery than in trying conservative methods to deal with an issue that has arisen during labour.

Another point of view regarding the overuse of CS is that Greece is considered a developed country, but one now in economic crisis. The developed status of the country means that the public still has high expectations around the quality of care and patient outcomes, resulting in some forms of morbidity and mortality (eg, maternal death or fetal demise during labour, or labour-related cases of cerebral palsy) being considered simply unacceptable. However, this high-quality care is being requested in a now low-resource setting, which has in turn resulted more recently in an increase in medicolegal cases. In our opinion, this conflict between the supply of and demand for quality care, and the rise in legal persecutions, contribute also to the country's high use of CS.

Regarding results relating to this overall attitude, Greece does have a high percentage of maternal deliveries that resort to CS; however, according to Eurostat, the country also has a low index of perinatal mortality, at 5·4 per 1000 livebirths in 2016, when compared with other Eurostat countries.[2] This measure is particularly


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