Reviewer's report

Title: Trends in birth weight and the prevalence of low birth weight and small-for-gestational-age in Surinamese South Asian babies since 1974: cross-sectional study of three birth cohorts

Version: 2 Date: 12 March 2013

Reviewer: K Joseph

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Major revisions

1. It is unclear if the study subjects represent a sample of the records of infants born in The Hague during the study period or if they represent a census (i.e., the totality of all infants born, barring exclusions). If these infants represent a sample, a brief mention of how the samples were chosen and some discussion about the potential for differential selection during the different periods of the study and the potential for bias is warranted.

2. How was gestational age determined in each period – by menstrual dating, by early ultrasound, by pediatric exam, etc?

3. Typically, gestational age is recorded in ‘completed weeks’. Please clarify the term ‘whole weeks’ i.e., was gestational age rounded up and rounded down to the nearest week?

4. The parity=1 proportion was not substantially different between periods but the P value for trend shows a significant difference between the 3 time periods. Or does this significant difference apply to the trend in missing values of parity? Please check/clarify.

5. This is a descriptive study, whose objectives include examining changes in the mean birth weight, low birth weight rate and SGA rates of South Asian Surinamese infants born in The Hague and also contrasting these indices among South Asian Surinamese infants born in 2006-09 with Caucasian infants born in the same period. Whereas the analyses carried out do address these objectives, the Conclusion in the Abstract, namely, ‘For the assessment of birth weight of South Asian babies ethnic specific or customised fetal growth standards are recommended.’ is unrelated to the study, not justified by the evidence presented and should be removed from the Conclusion section (see also #6 below).

6. Insofar as the study only provides means and rates, it is perhaps not advisable for the authors to infer support for an alternative cut-off for low birth weight among Surinamese South Asian babies (e.g., <2000 g). The key issue for determining whether a cut off is appropriate or not is the rate of neonatal mortality and severe morbidity among infants below and above the cut-off. Thus, the 2500 g low birth weight cut-off has been deemed to be appropriate because
most infants above this cut-off are healthy, while the probability of neonatal mortality and severe neonatal morbidity below this cut-off tends to be substantially higher. If the rate of neonatal mortality and severe neonatal morbidity among Surinamese South Asian infants 2000-2499 g is high, using a low birth weight cut-off of 2000 g will only serve to normalize infants in need of medical attention. Since this study did not examine rates of mortality/morbidity, it may be preferable not to infer appropriateness of specific cut-off (or of ethnic specific fetal growth standards).

7. Surinamese South Asian infants showed no secular trends in mean birth weight or low birth weight but did register improvements in rates of small-for-gestational age. As the authors point out in the Discussion section, this was probably a consequence of changes in the gestational age distribution of this sub-population. It would be helpful if the authors could provide secular changes in rates of preterm birth <37 weeks, <34 weeks, <32 weeks and <28 weeks. Another important index that would help clarify the changes among Surinamese South Asian infants is the temporal trend in the rate of iatrogenic preterm birth. Also, the possibility of changes in the modality of gestational age ascertainment has to be entertained. It is known that a change from menstrual dating to early ultrasound dating results in an (artefactual) increase in preterm birth rates (Kramer et al. JAMA 1988).

Minor comments
8. Some copy editing is required. For example, sentences such as the ones below, would benefit from rewording.
‘We found no secular changes in mean birth weight of Surinamese South Asian neonates,
even not after adjusting for sex, parity…..’.
‘Surinamese South Asian neonates have on average not gained weight over a period of 35 years....’.

9. ‘This is the first study in the Netherlands....’.
Such claims to precedence are best avoided as they are very difficult if not impossible to substantiate (for instance, there could have been an unpublished study, or one published in a journal that is not indexed).

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Needs some language corrections before being published

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:
I declare that I have no competing interests