Gestational age recorded at delivery versus estimations using antenatal care data from the Electronic Maternal and Child Health Registry in the West Bank: a comparative analysis

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Abstract

Background **Estimated dates of delivery have important consequences for clinical decisions during pregnancy and labour. The Electronic Maternal and Child Health Registry (MCH eRegistry) in Palestine includes antenatal care data and birth data from hospitals. Our objective was to compare computed best estimates of gestational age in the MCH eRegistry with the gestational ages recorded by health-care providers in hospital delivery units.**

Methods **We obtained data for pregnant women in the West Bank registered in the MCH eRegistry from Jan 1, 2017 to March 31, 2017. Best estimates of gestational age in the registry are automated and based on a standard pregnancy duration of 280 days and ultrasound-based pregnancy dating before 20 weeks' gestation or the woman's last menstrual period date. Hospital recorded gestational ages are reported by care providers in delivery units and are rounded to the nearest week. We calculated proportions of gestational ages (with 95% CIs) from both sources that fell into the categories of term, very preterm (24–32 weeks' gestation), preterm (33–37 weeks), or post-term (>42 weeks).**

Findings **1924 women were included in the study. The median hospital recorded gestational age was 39 weeks (IQR 38–40 weeks) and according to MCH eRegistry estimates was 39 weeks and 5 days (IQR 38 weeks and 1 day to 40 weeks and 5 days). Proportions of very preterm, preterm, and post-term deliveries were higher based on MCH eRegistry estimates than on hospital recorded gestational ages (very preterm 3%, 95% CI 2–4 *vs* 2%, 1–2; preterm 6%, 5–7 *vs* 5%, 3–6 ; post-term 6%, 5–7 *vs* 1%, 1–2).**

Interpretation **In addition to clinical care, the proportions of term, very preterm, preterm, and post-term births can have implications for public health monitoring. The proportion of deliveries within the normal range of term gestation was calculated to be higher by care providers in delivery units than by MCH eRegistry estimates. Extending the access of hospitals to information from antenatal care in the MCH e-Registry could improve continuity of data and better care for pregnant women.**

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Contributors

JFF conceptualised the study. MI and JFF managed the data. MI and RW did the data analysis. MV, RW, and JFF interpreted the data. MI and MV, wrote the Abstract. EA, KAK, TA, MB, BG, TH, AR, RS, and JFF revised the Abstract. AR and RS provided administrative support for data management. All authors approved the final version of the Abstract.

Declaration of interests

We declare no competing interests.

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