Abstract sample for original research

Impact of ALSO® Australasia on PPH related maternal mortality on the Thailand-Myanmar border in a population based cohort study

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Introduction

The burden of maternal mortality from postpartum haemorrhage (PPH) falls predominantly in low income, limited-resource settings. Shoklo Malaria Research Unit (SMRU) has worked with marginalized populations on the Thailand-Myanmar border for 30 years. Here we report on maternal mortality from PPH before and after the introduction of Advanced Life Support in Obstetrics (ALSO®).

Methods

Registration and birth data in women who followed SMRU antenatal clinics for refugees and migrants on the Thai-Myanmar border has been systematically collected since 1986. Trends in maternal mortality from PPH were compared in the 8 years before (2000-07) and since the introduction of the ALSO® course for skilled birth attendants from (2008-15). Participant confidence scores were assessed pre, post and one year after the primary course.

Results

The proportion of live births at SMRU rather than at home has increased significantly from 54.1% (8,436/15,590) in 2000-07 to 74.2% (15,438/20,815) in 2008-13. There were 7 PPH-related maternal deaths in 2000-07 and 4 in 2008-15. There was no significant difference in the overall PPH-related mortality rate per 100,000 live births (95% CI) in 2000-07: 44.9 (18.0, 92.5), and 2008-13: 19.2 (5.2, 49.2); with a risk difference of -25.7 (-63.9, 12.5) p=0.224. For women who delivered at SMRU, the PPH-related maternal mortality rate was 59.3 (19.2, 13.8) in 2000-07 and 0 (one sided 97.5% CI: 0, 23.9) in 2008-15, with a significant risk difference of -59.3 (-111.1, -7.3; p=0.0065). The corresponding maternal mortality rates for women who delivered at home were 17.4 (0.44, 97.3) and 60.2 (7.2, 217.4); or a risk difference = 42.7 (-47.4, 132.9); p = 0.559. The home birth deaths are most likely under-estimated.

ALSO® participants have consistently achieved high pass results on the practical component with pass marks on MCQ increasing from 30% pass in 2008 to 60% pass in 2015, and confidence scores have also been positive. English is 3rd or 4th language for the majority of participants who have mostly graduated from 10th standard school (equivalent to Year 10/11 in Australia/UK).

Conclusion

The usefulness of ALSO® in this setting is evident. Skilled birth attendants can develop life-saving skills from the ALSO® Australasia course. Identifying education methods and tools that work is important for marginalized populations such as refugees and migrants. The risk of mortality from homebirth in this environment remains unacceptably high and ongoing efforts to ensure women have universal access to SBA during childbirth are essential.