

## 5<sup>th</sup> Asia Pacific Global Summit and Expo on **Vaccines & Vaccination**

July 27-29, 2015 Brisbane, Australia

### Best practice for communicating pertussis booster vaccine recommendations to new mothers: A randomised-control trial

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**H**ealth message framing is a novel educational strategy. We tested its effect on promoting pertussis vaccine uptake in the postnatal ward setting, and described maternal attitudes towards pertussis and perinatal vaccination.

**Methods:** We screened 98% (1979/2020) of mothers approached on an Australian private postnatal ward. We excluded 889 (44.8%) recently vaccinated against pertussis (40 during pregnancy). Weekly block randomisation with allocation concealment was used, with 1090 unvaccinated participants receiving either intervention (gain or loss-framed pamphlet) or control (government pertussis factsheet). We excluded 52 (misclassified vaccine status) and 39 were loss to follow up (questionnaire technical errors). Subjects were offered a free pertussis vaccination (dTpa), administered by their midwife. Pre and post knowledge and attitudes questionnaires were completed prior to discharge.

**Results:** Uptake was 85.8%, despite a high baseline vaccination rate. The framing intervention was as effective as the educational brochure when accompanied by a funded vaccine in the postnatal ward setting. Indicating a 'health professional' as influential to vaccine decision-making, perceiving vaccine benefits outweighed the costs (OR 1.58, P=0.003) and that vaccination was their 'maternal responsibility' to protect their baby (OR 1.59, p=0.002) predicted uptake among participants. Our RCT increased vaccine coverage to over 90% among postpartum women, demonstrating a maternal vaccination strategy can be highly effective when implemented within the hospital setting.

**Conclusion:** This is the first randomised control trial evaluating pertussis vaccination education among new mothers. Education accompanying a funded vaccine provided within the hospital setting is a highly effective method to promote maternal vaccination against pertussis.

#### Biography

Elizabeth Hayles is near completion of her PhD through Sydney University School of Medicine, from which two manuscripts have been published in international vaccination journals. She was awarded a National Health and Medical Research Scholarship for the duration of her candidature, along with a travelling fellowship and Young Investigator Award at various international conferences. In 2010, she completed her Masters of International Public Health with Honours through Sydney University, School of Medicine. She has five years experience in perinatal research, both as a study coordinator and associate investigator, focusing on placental pathology, pertussis, and maternal and neonatal vaccination.

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