

Strengthening maternal immunization to improve the health of mothers and infants

Jon Abramson

Wake Forest School of Medicine, USA

The reduction in mortality of children less than five years of age has been faster than for maternal mortality. Additionally, the reduction in post neonatal mortality has been faster than the decrease in neonatal mortality resulting in an increase in the percentage of U5 deaths that currently occur in the neonatal period to ~45%. Maternal immunization (MI) has the potential to decrease serious morbidity and mortality not only in the mother, but also the fetus, neonate and young infant that are not yet able to immunologically respond to most vaccines. Currently, we are only beginning to unlock the potential of using vaccines this way. The tetanus and influenza vaccines are recommended in pregnancy not only to prevent diseases causing serious morbidity and mortality in the mother, but also in neonates and young infants. Recently, the yellow fever vaccine has been recommended for use in pregnant women in outbreak settings and a phase 3 trials with a hepatitis E vaccine is currently

ongoing in Bangladesh. Vaccines are also available or under development that could be given to pregnant women not to specifically prevent disease in them, but rather in their fetus or young infant. The acellular pertussis vaccine has recently been recommended for use in pregnant women in countries that have documented increasing numbers of deaths in young infants due to pertussis. Examples of vaccines currently being specifically developed to give to pregnant women for protection of their unborn child and/or infant include those designed to prevent respiratory syncytial virus and group B streptococcus disease. This lecture will discuss the current status of the MI program and various implementation issues that need to be addressed (e.g., vaccine hesitancy in pregnant women and their families as well as healthcare workers and government officials).

jabrams@wakehealth.edu

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