

# Influenza-associated respiratory illness among five cohorts of pregnant women and their young infants (0-6 months), Bangladesh, 2013-2017

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## Abstract

Pregnant women with their infants are considered at higher risk for influenza-associated complications, and the WHO recommends influenza vaccination during pregnancy to protect them, including their infants (0-6 months). There are limited data on the influenza burden among pregnant women and their infants (0-6 months), and there is no routine influenza vaccination in Bangladesh. Five annual cohorts (2013-2017) of pregnant women were enrolled from 8 sub-districts of Bangladesh before the influenza season (May-September); contacted weekly to identify new onset of influenza-like illness (ILI) (subjective or measured fever and cough) and acute respiratory illness (ARI) (at least two of: cough, rhinorrhea, or difficulty breathing) among their infants from birth to 6 months of age. We collected nasopharyngeal swabs from ILI and ARI cases, tested by rRT-PCR for influenza virus (including types and subtypes) and estimated influenza incidence (95% CI) /10,000 pregnancy-months or infant-months, respectively. We enrolled 9,020 pregnant women, followed for 26,709 pregnancy-months and detected 1,241 ILI episodes. We also followed 8,963 infants for 51,518 infant-months and identified 5,116 ARI episodes. Influenza positivity was 23% for ILI and 3% for ARI cases. The overall incidence (2013-2017) of influenza among pregnant women was 158.5/10,000 pregnancy-months (95% CI: 141.4-177.6), and that among infants was 21.9/10,000 infant-months (95% CI: 18.2-26.5). Although the data was collected more than five years ago, as the only baseline data, our findings illustrate evidence of influenza burden among pregnant women and infants (0-6 months) which may support preventive policy decisions in Bangladesh.

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