

an increasing funding shortfall. Novel strategies include community models of care, for testing, adherence support and delivery of ART.

AIDS is far from over as challenges ahead dwarf the impressive achievements of ART scale up to date. Yet treatment as prevention is already showing early signs of success...

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Randomized, placebo-controlled trial on safety and efficacy of inactivated influenza vaccination of pregnant women in preventing illness in their infants

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Background: Pregnant women and young infants are at increased risk for severe influenza-illness. Influenza vaccination during pregnancy may confer indirect protection against influenza-illness to infants < 6 months of age, for whom there is no licensed influenza vaccine. A co-primary objective of our study was to evaluate the efficacy of trivalent inactivated influenza vaccine (IIV3) when given during pregnancy against PCR-confirmed influenza-illness (PCI) in their infants up until 6 months of age.

Methods & Materials: We conducted a double-blind, randomized, placebo-controlled trial in Soweto, South Africa during the 2011 and 2012 influenza seasons. 2116 HIV-uninfected women were randomized to receive IIV3 or placebo intramuscularly between 20–36 weeks gestation. Infants were screened weekly for influenza-like-illness (ILI) after birth. When ILI was suspected nasopharyngeal aspirates were collected for influenza A and B testing by real-time PCR. Influenza A viruses were subtyped for A/H1N1pdm09 and H3N2 and influenza B isolates were tested for Yamagata and Victoria lineages.

Results: Pregnancy outcomes were similar between the IIV3 and placebo-group, including 8 miscarriages and 22 stillbirths. 2048 babies were born alive, 1025 and 1023 to mothers who received IIV3 and placebo, respectively. The rates of preterm deliveries (10%) and low birth weight (12.4%) were also similar between the study groups. 706 and 698 illness visits were completed in infants of mothers who received IIV3 and placebo, respectively; of which 665 (64.9%) and 656 (64.1%) illness episodes fulfilled ILI criteria. In infants born to IIV3-recipients, 19 PCI cases were detected compared to 37 in infants born to placebo-recipients, resulting in vaccine efficacy of 48.8% (95%CI: 11.5% to 70.3%) against PCI

in infants. Excluding the non-vaccine influenza B/Yamagata cases from the analysis vaccine efficacy (VE) did not change (VE: 48.1%; 95%CI: -0.9% to 73.3%). In twelve (21.4%) of the 56 PCI cases among infants (including 11 whose mothers received placebo), PCI was also identified concurrently in the mother.

Conclusion: Vaccination of African pregnant women with IIV3 was safe and reduced PCI in their infants by 49% up until 6 months of age. Immunization of pregnant women with IIV3 is warranted for the protection of their young infants.

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Clinical and epidemiologic characteristics of acute respiratory infections in Vietnamese children

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Background: Acute respiratory infections (ARIs) are a major cause of morbidity and mortality among children worldwide. However, information about viral etiologies of ARIs from developing and tropical countries is limited. Understanding the etiologies of ARIs in hospitalized children is essential for improving prevention, diagnosis and treatment in these settings. This study was conducted to describe the clinical and epidemiologic characteristics of viral ARIs in hospitalized children in Vietnam.

Methods & Materials: From April 2010 to May 2011, clinical data and nasopharyngeal (NP) samples were collected from children with ARIs admitted to Children's Hospital 2 at Ho Chi Minh City, Vietnam. Four multiplex PCR assays were performed to detect 13 respiratory viruses in NP samples.

Results: A total of 1,082 were enrolled. At least one pathogen was detected in 64% of cases with 9.1% were co-infections. The most frequent pathogens were rhinovirus (RV) (30%), respiratory syncytial virus (RSV) (23.8%), human bocavirus (HBoV) (7.2%) followed by parainfluenzae virus (PIV) type 3 (5.3%), PIV type 1 (3.3%), and influenza A (FluA) (3.2%). RV infection occurred all year round, while RSV epidemic occurred mainly in the rainy season. FluA infections peaked in both seasons with seasonal H3N2 in the rainy season and pandemic H1N1 2009 in the dry season. Other viruses were predominant in the dry season. RV infections occurred in all age groups. RSV, PIV3, PIV1 and HBoV, FluA caused infections predominantly in children < 6 months, 6 – 12 months, 12 – 24 months, and > 24 months, respectively. Significant associations were found between PIV1 with croup ($p < 0.005$) and RSV with bronchiolitis ($p < 0.005$). HBoV and RV infections were associated with hypoxia ($p < 0.05$) and RSV infections with lower chest indrawing ($p < 0.05$). RSV subgroup A had severity score higher than subgroup B ($p < 0.05$). Pandemic H1N1 2009 and co-infections did not lead to more severe symptoms.

Conclusion: A high incidence of virus-associated ARIs, in which RV, RSV and HBoV were the leading causes, was found among hos-

