Introduction
Neural tube defects (NTDs) are one of the most common congenital malformations affecting births worldwide. The estimated NTD prevalence in Africa is 12 per 10,000 live births (95% confidence interval [CI]: 9.5-16.5), but data are limited (Zugazago et al, PLoS One 2016). Few studies have reported on the impact of antiretroviral therapy (ART) during pregnancy on the risk for birth defects in developing countries, however recent concerns have been raised about the potential increased risk of NTDs among women on dolutegravir at conception or during the first trimester (Zah et al, NEJM 2018).

As new antiretrovirals are introduced during pregnancy it is imperative to know the risk for birth defects and other adverse birth outcomes in the general population as well as among women on ART. Therefore ongoing birth defect surveillance is needed as part of pharmacovigilance. The objective of this analysis was to compare the prevalence of NTDs among infants of HIV infected women (on ART) and HIV negative women in the hospital based birth defect surveillance (BDS) program in Kampala, Uganda.

Methods
Design
A hospital-based birth defect surveillance program, with active case ascertainment in Kampala Uganda.

Population
All eligible births at the four participating hospitals – Mulago, Naamba, Mongo and Lubugasi.

Inclusion Criteria
All informative live births, stillbirths and abortions regardless of gestational age. Informative births are those in which the newborn is well formed so as to detect the presence or absence of a major external defect. Eligible newborns were examined by surveillance midwives for major structural external birth defects using active case ascertainment. Photographs of the birth defect were taken to confirm and classify the defect after consent.

Photographs and narrative descriptions were reviewed by birth defects experts for confirmation of local expert diagnosis and coding of the birth defect using ICD-10 DCPC disease classification criteria. The prevalence of birth defects and 95% CI were calculated for HIV infected (onART) and HIV negative women. Association of NTDs with HIV and ART was determined by logistic regression.

Results
Date was collected from the hospitals between August 2015 and December 2017. A total of 59,796 births were analyzed with 60,905 (92.9%) delivered by HIV negative, 6,494 (9.6%) by HIV infected women and 150 (0.2%) HIV unknown. Median maternal age was 25 years (IQR 23-30).

Total enrolled births = 59,796
Total mothers enrolled = 67,542

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0743- NEURAL TUBE DEFECTS, HIV AND ANTIRETROVIRALS - BIRTH DEFECT SURVEILLANCE IN UGANDA

Authors: Linda Barlow-Mitsola1, Daniel Mwanja Mumpfe1, Delilia Williamson1, Robert Sarungi1, Diana Valentino1, Joyce Namale Matovu1, Philippa Musoke1,2 1 US Centers for Disease Control and Prevention (CDC), Atlanta, USA 2 Department of Paediatrics and Child Health, Makerere University College of Health Sciences, Kampala Uganda

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<table>
<thead>
<tr>
<th>Birth Defect</th>
<th>No</th>
<th>Prevalence per 10,000 births</th>
<th>Male</th>
<th>Female</th>
<th>Male:Female</th>
<th>Sex</th>
<th>Infant HIV Exposure</th>
<th>HIV Exposure</th>
<th>Infant HIV Exposure</th>
<th>HIV Exposure</th>
<th>Infant HIV Exposure</th>
<th>HIV Exposure</th>
<th>Infant HIV Exposure</th>
<th>HIV Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neural Tube</td>
<td>10</td>
<td>2.7 (2.1-3.4)</td>
<td>7</td>
<td>3</td>
<td>2.3</td>
<td>Male</td>
<td>Unexposed</td>
<td>Unexposed</td>
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<td>Unexposed</td>
<td>Unexposed</td>
<td>Unexposed</td>
<td>Unexposed</td>
<td>Unexposed</td>
</tr>
<tr>
<td>Encephalocoele</td>
<td>1.7 (0.9-2.6)</td>
<td>1.0 (0.5-1.5)</td>
<td>0.6 (0.3-1.0)</td>
<td>0.6 (0.3-1.0)</td>
<td>1.0 (0.5-1.5)</td>
<td>Female</td>
<td>Unexposed</td>
<td>Unexposed</td>
<td>Unexposed</td>
<td>Unexposed</td>
<td>Unexposed</td>
<td>Unexposed</td>
<td>Unexposed</td>
<td></td>
</tr>
</tbody>
</table>

There was no significant difference in NTD prevalence among HIV infected and HIV-uninfected women; AOR 0.91 (95% CI 0.3-2.4), p= 0.858.

NTDs were not significantly associated with maternal age, HIV status, ART, or parity. Anencephaly was more common among females compared to males with site as an effect modifier [AOR of 5.8 (95% CI: 2.1-16.9), p=0.001].

Conclusions
NTDs are a common congenital malformation affecting births in Kampala. These findings are similar to the current estimates for Africa, ART was not associated with an increased risk for NTDs. With the introduction of new ART regimens during pregnancy, ongoing BD surveillance is critical.