The effect of perinatal exposure to HIV and antiretroviral drugs on 99% of HIV-infants breastfed

Residing in Gaborone (city) or...

Developmental Milestones Checklist (DMC):

Tests were not normed in Botswana, so we cannot compare scores with HIV...}

Multivariable models for predictors of ND used stepwise regression...}

No differences in ND outcomes were observed between HEU...}

Effect size = differences between means within each domain/sub-scale...}

Notable differences were observed in scores between HEU and HIV-infants exposed to 3-drug ART vs. ZDV only (data not shown)...

HIV Maternal Disease Stage

Mean baseline CD4 = 451 Mean baseline VL = 16,061

Summary: Comparison of ND Scores

- Unadjusted
  - HEU children had higher Bayley cognitive scores
  - HEU children had lower Bayley language expression scores

- Adjusted
  - No differences were found between HEU vs. HIV-infants on either the Bayley or the DMC.
  - Could not control for feeding method due to collinearity with other variables (but more breastfeeding by HIV-infected is expected to bias toward worse ND outcomes in HEU infants).

Conclusions

- HIV-uninfected children born to HIV-infected women did not have worse scores on ND tests at 24 months of age compared with children born to HIV-infected women in Botswana.

- These findings reduce the concern that exposure to either HIV or antiretrovirals may negatively affect neurodevelopment by 2 years of age.