

#### **BABIES BORN WITH HIV AND THE CHICKENPOX VACCINE**

Antibodies help our immune system protect us against viruses. All healthy children make antibodies against chickenpox after they get two doses of the vaccine. Studies have shown that some HIV-infected children do not make enough of these antibodies after being vaccinated. In this study, we looked at factors that help children with HIV make long-lasting antibodies so that they stay protected against chickenpox.

# WHO PARTICIPATED



### WHAT WE DID



The youth were from 14 clinical sites around the country

# WHAT WE FOUND



doses

## WHAT WE LEARNED



dose

C060. Purswani, M., et al. Prevalence and persistence of varicella antibodies in previously immunized children and youth with perinatal HIV-1 infection. Clin Infect Dis 2016; 62(1). http://www.ncbi.nlm.nih.gov/pubmed/26385992



NIH National Institutes of Health

There were two groups: 432 youth born with HIV, and 221 youth without HIV who were born to mothers with HIV. All youth had given blood samples at their study visits around October 31, 2012, which were stored for later use.

We tested the stored blood samples for antibodies to chickenpox. We measured antibodies made during the time between when youth were vaccinated and when we tested their blood.

We then did an analysis to find out which factors were important in helping youth make and keep antibodies in their system after vaccination.

All youth who received at least one dose of the vaccine were protected from chickenpox for at least 3 years. However, only 77% of the youth who received just one vaccine dose still had antibodies after 7 years. This means they were less protected against chickenpox than youth without HIV.

The youth with HIV who received 2 or more doses of vaccine were much better protected. 97% of them still had antibodies after 7 years.

Children with HIV are best protected against chickenpox when they receive at least two doses of the vaccine. Their first dose of the vaccine should be given at least 3 months after starting antiretroviral treatment. Children should continue on antiretroviral treatment long-term so their bodies can keep making antibodies to protect them from chickenpox.

For more information, contact: Claire Berman | Director, Health Education & Communication cberman@hsph.harvard.edu | 617-432-1853