

### HOW WELL THE HPV VACCINE WORKS IN YOUNG WOMEN BORN WITH HIV

Women living with HIV may have a high risk of getting cervical cancers associated with the Human papillomavirus (HPV). Some vaccines such as the measles vaccine don't seem to work as well in people living with HIV. We wanted to understand if there are ways to make the vaccine work better.

## WHO PARTICIPATED



310 young women born with HIV



148 young women born without HIV to mothers living with HIV

We looked at 458 young women in AMP Up who:

- had at least one dose out of three recommended HPV vaccines
- who had consented for their blood to be stored for later studies in PHACS.

We also looked at a separate research database of young women in AMP Up who had received a Pap smear.

#### WHAT WE DID



Antibodies are proteins that fight specific viruses in the body.



A vaccine helps the body produce antibodies to protect it from specific viruses.



A Pap smear screens for cervical cancer.

We looked at the blood samples from the young women born with HIV. We did tests to look for HPV antibodies.

We also looked at how well they responded to 1, 2, or 3 doses of the vaccine. We then looked at how many of those young women had had a pap smear, and how many of those had abnormal results.

## WHAT WE FOUND





Young women born with HIV had fewer antibodies to HPV.

National Institutes of Health

Young women born with HIV had fewer antibodies and were less protected against HPV. Young women with worse HIV (higher viral load and lower CD4 count) when they got vaccinated were less protected against HPV.

# WHAT WE LEARNED



The HPV vaccine does not seem to work as well in young women living with HIV. Having a 4th dose of the HPV vaccine might help protect them. Getting the vaccine when their HIV is well controlled might also help.

C077. Moscicki, A et al. Human Papillomavirus Antibody Levels and Quadrivalent Vaccine Clinical Effectiveness in Perinatally Human Immunodeficiency Virus-infected and Exposed, Uninfected Youth. Clincal Infectious Diseases 2019; Epub ahead of print. https://www.ncbi.nlm.nih.gov/pubmed/30927547

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