

PHACS AMP
Participant Summary

Title: Immunity to Measles, Mumps and Rubella Among School-Aged Perinatally HIV-Infected U.S. Children and Youth

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Study Description: Today, most children and teens with HIV infection have strong immune systems and good HIV control thanks to antiretroviral therapy, or ART. Children on ART usually respond well to vaccines. But many older children and teens on ART today got vaccines when they were infants or young children and not on ART. That means that our youth today may not be protected by the vaccines they got years ago. MMR is a vaccine that protects against 3 infections: measles, mumps and rubella (german measles). MMR is usually given to young children. This study used blood testing to see if children in AMP still had protection from measles, mumps and rubella.

Study Population: 428 AMP participants with HIV infection (PHIV) and 221 AMP participants without HIV infection (HIV-negative) were included. We used the most recent blood sample from each participant. The CDC tested that blood sample for protection against measles, mumps and rubella. We compared the levels of protection between the PHIV participants and the HIV-negative participants.

Results: The participants' ages ranged from 7 – 19 years at the time of the blood sample. 98% of PHIV got at least one MMR vaccine in the past. 92% of HIV-negative got at least one MMR vaccine in the past. 93% of PHIV participants were on ART. Their average CD4 count was excellent (754). Most (68%) had viral load <400 copies/mL. PHIV were much less likely than HIV-negative to have protection against measles, mumps or rubella. 46% of PHIV and 98% of HIV-negative were protected against measles. 59% of PHIV and 97% of HIV-negative were protected against mumps. 65% of PHIV and 98% of HIV-negative were protected against rubella.

Conclusions: Many school-aged PHIV children in the US do not have protection against measles, mumps and rubella. We need to figure out how to improve their protection against these serious infections.

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