

HIV Vaccine Research

A community and civil society perspective, and commentary on HVTN 702

Background:

On 3rd February 2020, the US National Institute of Allergy and Infectious Diseases (NIAID) announced that HVTN 702, a large-scale HIV vaccine efficacy trial of a vaccine candidate, has stopped vaccinations because the vaccine does not prevent HIV.

The trial, conducted at 14 sites across South Africa, followed more than 5400 HIV-negative 18–35-year-olds over 18 months. The participants received six injections during the six-month period, either the vaccine or a placebo.

The study was stopped following a scheduled review by an independent data and safety monitoring board. The analysis undertaken after at least 60% of the participants had been in the study for more than 18 months showed that there were 129 HIV infections among the people who had the vaccine, while 123 people who had the placebo became infected. 252 in total.

This, however, does not mean the non-efficacy of the vaccine caused the HIV infections. The vaccines used in this study are not made from live HIV, killed HIV, parts taken from HIV, or HIV-infected human cells. The HIV vaccines being tested are made from synthetic (man-made) copies of HIV pieces. Therefore, the vaccines cannot cause HIV infection.¹

The review showed no significant difference between the two arms of the trial. This means that the vaccine was ineffective in preventing HIV transmission.

No safety concerns were found during the trial.

Reflection:

While it is disappointing that the trial couldn't reach its planned ending of 2021, the integrity of the trial is encouraging. The decisive action to stop it when an independent review showed that the vaccine doesn't have the potential to prevent HIV is indicative of ethical and human rights considerations in the study.

Important science has been learned that can be carried forward to future trials. Every trial teaches us something, every trial generates data that can be used to advance our progress. Many other trials underway and coming up will be more robust and leverage off the wealth of data from 702 and trials like it towards an effective, safe, affordable and accessible vaccine.

¹ <http://uhambo.org.za/about>

The 252 new infections diagnosed across the study is an important reminder of the need for access to and uptake of current treatment and prevention options, like oral PrEP, and for continued investments in the development of additional vaccine and non-vaccine options.

The development of a HIV vaccine is a long yet important process. It therefore requires continued political will for significant investments in order to advance the science.

Meaningful and ethical community engagement in any study is critical and has implications. ‘You can have the most effective vaccine in the world but if communities don’t know about it, if communities are unable to access it and receive quality counselling and support ...the millions of dollars of investment will come to nothing’, says Tian Johnson, of The Vaccine Advocacy Resource Group (VARG).

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