PWHIV Excluded from COVID-19 Vaccines Studies and FDA Vaccine Approval Hearings

By Lynda Dee

PWHIV Were Excluded from Two Important Vaccine Trials

Our saga begins on July 19, 2020 when we learned that people with HIV (PWHIV) were excluded from two important COVID-19 vaccine trials. Jeff Taylor of Palm Springs, CA. a long-time friend and trusted HIV activist colleague alerted us that PWHIV were being excluded from COVID-19 vaccine trials after he attempted to enroll in one of the trials. In response, we sent a letter with over 1,500 signatures to Dr. Francis Collins, Director of the National Institutes of Health (NIH) on July 30, 2020, demanding that PWHIV be included in all government funded vaccine trials. NIH, Food and Drug Administration (FDA), Industry and press advocacy also commenced immediately as well as a massive community collaboration.

This news was shocking to me as I had been assured that PWHIV would not be excluded from the vaccine trials by a government contact months before. Apparently, the HIV exclusion was later versions of the Pfizer and Moderna protocols unbeknownst to leaders at the Division of AIDS (DAIDS) which is the group that directs HIV/AIDS research within the National Institute of Allergy and Infectious Diseases (NIAID) led by Dr. Anthony Fauci at the NIH.

After speaking to the Carl Dieffenbach, PhD, Director of DAIDS, I learned that the exclusion was apparently a new development, and that he would investigate the matter. Dr. Dieffenbach has been a true community colleague and supporter and was true to his word. He was instrumental in convincing Moderna to remove the HIV exclusion. Moderna was one of the three front-running companies that at the time had a late phase COVID-19 vaccine study underway. The other companies were Pfizer/BioNTech (Pfizer) and Astra-Zeneca (AZ). There was no HIV exclusion in the AZ trial. Both Moderna and AZ were supported directly by DAIDS which was providing access to DAIDS clinical trial networks for these COVID-19 vaccine studies, saving the companies millions of dollars in development costs. Pfizer did not use the DAIDS networks to conduct its studies.

Moderna officially notified the world that its HIV exclusion was removed on August 5, 2020 via Twitter. Working directly with all vaccine manufacturers using the DAIDS clinical trials networks, Dr. Dieffenbach has also obtained assurances from all other current COVID-19 vaccines manufactures working with the DAIDS clinical trial networks that stable PWHIV will not be excluded from future late stage vaccine trials. I have been working directly with Pfizer which disseminated a press release on September 12, 2020, indicating that their HIV exclusion had also been removed. Both Moderna and Pfizer required that PWHIV be stable in order to be included in their vaccine trials.

PWHIV would not have been included in the Pfizer and Moderna protocols without this intensive community collaboration and community NIH, FDA, Industry and press advocacy. I would like to thank Richard Jefferys from the Treatment Action Group in NYC, NY and Nelson Vergel from the Program for Wellness Restoration (POWER) in Houston, TX for their very helpful assistance and support. I must also acknowledge essential efforts of Dr. Carl Dieffenbach without whom we would never have obtained such successful results so expeditiously.

Results from the Pfizer and Moderna Trials and FDA EUA Hearings

The Pfizer vaccine was granted FDA Emergency Use Authorization (EUA) for its vaccine on December 11, 2020. The Moderna vaccine received EUA on December 18, 2020. The AZ vaccine is still mired in controversy, and has not received EUA at least in the USA. Both vaccines were determined to be safe and extremely effective against COVID-19, with the benefit clearly outweighing the risk of side effects experienced by the FDA's Center for Biologics Evaluation and Research (CBER) Vaccines and Related Biological Products Advisory Committee (VRBPAC). EUA is not full FDA approval. Pfizer and Moderna will still be required to file Biological License Applications (BLAs) in order to obtain full approval once they have more data.

Efficacy	Pfizer (BNT162b2)	Moderna (mRNA-1273)
Overall efficacy	95%	94.5%
People 65 and older	93.7%	100%
With Existing Co-Morbidities	95.5%	95.3%
Prevented Severe Cases	66.4%	100%

While both companies claimed that their vaccines were effective across ages, genders, races and ethnic minorities, this statement can only be made definitively with respect to gender. There were not enough people of color included in the studies to support these claims. For example, the number of Blacks, African Americans, Native Americans and Alaskan Natives who received vaccines in the trials was minimal. This is extremely important because Blacks, African and Native Americans are disproportionately affected by COVID-19, and also have disparate adverse COVID-19 outcomes, including more severe disease and deaths. Obviously, much more community outreach needs to be undertaken immediately to reassure these groups who have so much mistrust because of generations of unethical treatment at the hands of government, academia and industry. The percentages of these groups that actually received BNT162b2 and mRNA-1273 during the trial is as follows:

Blacks and African-Americans

Pfizer 9.2% Moderna 10.3%

Native Americans and Alaska Natives

Pfizer 0.5% Moderna 0.7%

Similarly, the total number of PWHIV included in both the vaccine and placebo arms was also abysmal. There were only 120 PWHIV in the Pfizer 43,000 participant trial and 176 in the Moderna 30,000 participant trial! While people with HIV were included in the overall safety analyses, no further data on PWHIV in the trials has been reported to date.

Both vaccines had similar side effect profiles, including pain and redness at the injection sight, fever, chills, fatigue, headache, joint pain, muscle pain and headaches, most of which resolved in 24 to 36 hours. Many of these side effects were more pronounced after the required second dose. Other more serious conditions were also reported, including anaphylactic shock which can be life-threatening. This has caused the Centers for Disease Control and Prevention (CDC) to subsequently recommend against

using these vaccines in people with a history of an immediate allergic reaction to a previous dose of an mRNA vaccine, any of its components or ethylene glycol. This contraindication does not include people who have experienced medication related side effects or food allergies, such as nut or other food allergies.

Other reported events include swollen neck and arm glands (lymphadenopathy), appendicitis and Bell's palsy (temporary paralysis/drooping on one side of the face). The number of appendicitis and Bell's palsy cases could not be attributed to the vaccines as they represented approximately the same number of people in the general public who experienced these conditions over the same period of time. Facial swelling was also seen with the Moderna vaccine, particularly with people who had received face fillers.

Both vaccine trials had placebo arms. An essential issue addressed at both hearings was whether to continue the placebo arms if the FDA granted EUA. While everyone agreed that the original studies needed to continue in order to confirm safety results and to answer other important questions, a majority of the VRBPAC agreed that the placebo arm should not be continued. Instead most VRBPAC members felt that an unblinded cross-over design should be employed to allow placebo arm participants to decide whether they wanted to remain in the placebo arm or cross-over to the vaccine arm. Their rationale was that most placebo participants would vote with their feet as soon as a vaccine was available to them. This would not only cause the original trial to crash, but would also heighten community mistrust even further if placebo participants were forced to defer use of a vaccine that was safe and approximately 95% effective. The feeling was that this would undoubtedly be seen as a betrayal of trust that would have a chilling effect on future enrollment of COVID-19 vaccine trials. Having advocated strenuously for an unblinded cross-over design in my written and oral VRBPAC comments, it is with great relief that I report that the FDA has agreed that an unblinded cross-over design should be implemented.

Both vaccines also present other complicating administration issues. "Cold Chain" requirements present a particularly thorny issue for both vaccines, especially the Pfizer vaccine which requires cold storage at below 94 degrees Fahrenheit. This will likely limit the effective use of the Pfizer vaccine to university based communities with the necessary freezer capacity. Rural areas may fair better with the Moderna vaccine that only requires storage temperatures of below 36 degrees Fahrenheit which is probably more realistic for other parts of the country.

Both vaccines also require two doses, an initial dose and a follow-up booster dose. The Pfizer vaccine requires a booster dose 21 days after receiving the first dose. The Moderna vaccine requires a booster dose 28 days after the first dose. It has been hard enough for states to vaccinate healthcare workers and nursing home residents who are easily identified and contacted. The problems vaccinating other more hard to reach populations are going to be even more difficult. The incoming Biden Administration has promised to create a national vaccination plan that will hopefully address these challenges. Resolving these issues will be essential because the high efficacy rates demonstrated with both vaccines are only present approximately two weeks after the booster vaccine is administered.

Stay tuned for more information from the required CDC hearings that followed the initial FDA hearings. The CDC is also required to have open hearings to approve vaccines and provide prioritization guidelines for COVID-19 vaccine use since these vaccines are currently in very limited supply.