HIV Vaccine Awareness Day 2021
HIV Vaccine Research: Building on Lessons from COVID

TOPLINE MESSAGES

The year-long “sprint” to successful COVID vaccines holds many lessons, and warnings, for the 32-year-old “marathon” towards a safe and effective HIV vaccine.

1.7 million people became infected with HIV and 700,000 died from HIV-related illnesses in 2019 (UNAIDS, 2020). A safe and effective vaccine to prevent HIV is still desperately needed, and a COVID-like approach could help transform years of painstaking HIV vaccine research into success.

The COVID experience also shines a spotlight on key obstacles, such as inconsistent community engagement, diminished faith in science and faltering commitments to global health solidarity and equity, that hold lessons for HIV vaccine efforts as well.

To achieve true global health and equity, what’s learned in the search for COVID and HIV vaccines must also be shared with those working to address TB, malaria and other neglected diseases.

Building on the lessons of COVID, HIV vaccine advocates can mobilize for an HIV vaccine research and access agenda that insists on:

1. Sufficient and diversified research funding
2. Enhanced global coordination and collaboration
3. Support for research innovation and novel trial designs
4. Strengthened political commitment and urgency
5. Placing communities at the center of vaccine research
6. Planning early for success and global equitable access

Key messages

- 1.7 million people became infected with HIV and 700,000 died from HIV-related illnesses in 2019 (UNAIDS, 2020). A vaccine to prevent HIV is still desperately needed, along with efforts to simultaneously accelerate and scale access to existing and newly emerging HIV treatment and prevention options.

- Technologies developed from decades of HIV vaccine research sped the discovery of COVID vaccines. The HIV vaccine effort also has much to learn from COVID – both in terms of its successes, and what must be done better to build consistent community engagement in research, strengthen faith in science and ensure a consistent focus on global health solidarity and equitable access to vaccines.

- Long before COVID, HIV vaccine research gained important momentum, with several major clinical studies underway, and new discoveries in fields such as antibodies and germline targeting technology. That momentum, with a COVID-like approach to vaccine development, could transform years of painstaking effort into success.

- The complexity of the human immunodeficiency virus means that a safe and effective HIV vaccine may still be years away. But applying what’s been learned from COVID can make the effort faster, more productive and more efficient.

- The lessons of COVID and HIV vaccine research must be also shared with researchers and advocates working to develop vaccines for tuberculosis, malaria, sleeping sickness, leishmaniasis, Chagas disease, river blindness, mycetoma and other neglected diseases that continue to plague many parts of the world.

Building on all that’s been learned from the COVID vaccine journey, advocates can mobilize an HIV vaccine research and access agenda that insists on:

1. Sufficient and diversified research funding

HIV vaccine research needs a much broader global pool of public and private funders committed to supporting all phases of HIV vaccine research, from basic science through late-stage R&D. Sufficient and diversified funding includes:

- The pooling of resources from multiple sources to increase investment.

- Funding mechanisms and subsidies that encourage private companies to join the search for HIV vaccines.

- Commitments to fund and support all promising HIV vaccine approaches by companies, labs, and non-profits large and small.

2. Enhanced global coordination and collaboration

COVID vaccine researchers were encouraged to think creatively, pursue multiple leads and slash barriers to innovation. Building on these models of success, HIV vaccine researchers should emphasize:

- Collaborating globally across labs and institutions.

- Increasing access to research information by supporting data-pooling and open-source research.

- Breaking down disease siloes by learning from and sharing information with researchers working in other fields of research, including those working to develop vaccines against neglected diseases.
3. Support for research innovation and novel trial designs
COVID vaccine research used multiple, innovative trial design strategies, conducting studies large and nimble enough to answer key questions quickly. HIV vaccine research should:
- Continue to support the major clinical studies underway.
- Move quickly to advance promising approaches and discoveries, such as germline targeting technology.
- Design and conduct large, well-funded and adaptable trials that test multiple vaccine candidates and approaches simultaneously and among all populations.

4. Strengthened political commitment and urgency
A shared global political commitment and willingness to invest and take risks was essential to developing COVID vaccines in record time. Moving forward, advocates can:
- Support innovative, pooled funding mechanisms to purchase and distribute vaccines, which can strengthen global access to, and help build faith in, vaccines.
- Build global recognition that HIV prevention—including the development of HIV vaccines—is key to reaching the UN Sustainable Development Goals.

5. Placing communities at the center of vaccine research
Ensuring more consistent community engagement in research is key to building faith in vaccines and reversing rising rates of vaccine hesitancy. Advocates can call for:
- Strong community engagement mechanisms, such as the Global COVID Advocates Advisory Board, which can help build transparency throughout the research process.
- Broad research engagement among communities and advocates globally, including the continued development and support of HIV vaccine research leadership and capacity in low- and middle-income countries.
- Use of the Good Participatory Practice (GPP) guidelines, developed for HIV and recently updated for COVID, which provide a critical roadmap for ethical, inclusive research.

6. Planning early for success and global equitable access
Scientific R&D is meaningless without the final D of delivery. Innovative strategies to accelerate science must be accompanied by equally strategic, inclusive and well-funded efforts to ensure equitable access to vaccines. Learning from the COVID experience, HIV vaccine research should:
- Support partnerships and technology transfer to strengthen global vaccine manufacturing, including in low- and middle-income countries.
- Use early purchase agreements to incentivize vaccine development and reduce financial risk for vaccine developers, while maintaining commitments to affordable and accessible global access.
- Secure funding and manufacturing capacity for promising vaccines before trial results are in.

For additional resources and information on HIV Vaccine Awareness Day and HIV vaccine research, visit [www.avac.org/hvad](http://www.avac.org/hvad).

About AVAC
AVAC is a non-profit organization that uses education, policy analysis, advocacy and a network of global collaborations to accelerate the ethical development and global delivery of new HIV prevention options as part of a comprehensive response to the pandemic. For more information, visit [www.avac.org](http://www.avac.org).