Taking Advantage of HIV Advancements for COVID-19

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Editorial

The global response to the COVID-19 pandemic has boosted research efforts and underlined the significance of community engagement and leadership in the COVID-19 response. Partnerships between research, government, and affected communities are essential for achieving these goals, but forming them quickly poses significant hurdles. We’ve also seen how progress against the worldwide HIV epidemic has influenced the COVID-19 reaction in recent months. To enhance HIV testing uptake and shift to a model of self-testing and community-led programmes, accessible, rapid point-of-care diagnostics were created. In low- and middle-income countries, these technologies are allowing for the quick introduction of diagnostic capability for Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) PCR testing (LMICs). SARS-CoV-2 is undergoing clinical trials using the same strategies used to isolate and generate broadly neutralising antibodies for HIV. Although possible SARS-CoV-2 antivirals are still in the early stages of development, combination antivirals may someday have a role in the treatment and prevention of COVID-19, as they did for HIV.

Novel vaccine platforms for COVID-19 are now in phase 2 and 3 clinical trials, including nucleic acid-based vaccines such as DNA and RNA, as well as live vectors, which were previously developed for HIV. COVID-19, like HIV, has had a significant impact on women, with increased infection risks for women in particular areas, such as health care, and a disproportionate number of women infected. Women’s economic impact as a result of Closures of schools and women as primary carers. Furthermore, because of the significant danger of infection and other negative consequences, COVID-19 findings among Black and minority ethnic groups. The lessons of community empowerment and activism from HIV could inform the response to COVID-19 for other vulnerable populations. Lessons learned from delivering antiretroviral medicine to over 25 million people, especially those with limited access to health care and, in particular, women, will be applied to the development of any COVID-19 vaccines and therapies. There will undoubtedly be issues with mass vaccination programmes if COVID-19 vaccines are ever deployed, but empowering marginalised populations and employing a human rights approach will be critical to success.

COVID-19 research is moving at a faster pace, which will assist HIV testing, treatment, and prevention in the future. The scientific infrastructure required to work with both viruses, notably high-containment laboratories and animal facilities, will continue to grow. COVID-19 research involves diagnostic, antiviral, and vaccine businesses, as well as companies that have never worked on a viral infectious disease before. The introduction of testing capacity in LMICs might also be employed for HIV and tuberculosis given the amount of testing required in the COVID-19 pandemic. These overlapping epidemics offer a chance to expand cross-disciplinary research into integrated HIV, TB, and malaria service delivery.

Finally, the faster development routes for COVID-19 vaccines, which resulted in clinical trials of many candidates within months of the discovery of SARS-CoV-2, should be applied to difficulties like producing an HIV vaccine. COVID-19 has had some short-term negative effects on HIV research and services, as well as many other diseases. Almost all HIV clinical trials have paused or postponed enrolment to ensure participant safety, and health services have experienced reductions in screening, laboratory monitoring, and drug collection, underlining the vulnerability of health systems, particularly in LMICs.


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