

CONFERENCE REPORT

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ACRONYMS AND ABBREVIATIONS

AMP	Antibody-mediated prevention
bNAbs	Broadly neutralizing antibodies
CAB-LA	Cabotegravir long-acting injectable
COVID-19	Coronavirus disease 2019
GNC	Gender non-conforming
HIVR4P	HIV Research for Prevention Conference
HIVR4P // Virtual	4th HIV Research for Prevention Conference
HPTN	HIV Prevention Trials Network
HVTN	HIV Vaccine Trials Network
MERS-CoV	Middle East respiratory syndrome coronavirus
NIAID	US National Institute of Allergy and Infectious Diseases
PrEP	Pre-exposure prophylaxis
RSV	Respiratory syncytial virus
SARS-CoV-2	Severe acute respiratory syndrome coronavirus 2
SHIV	Simian HIV
SRH	Sexual and reproductive health
STI	Sexually transmitted infection
TAF	Tenofovir alafenamide hemifumarate
TDF	Tenofovir disoproxil fumarate
UNAIDS	Joint United Nations Programme on HIV/AIDS

INTRODUCTION

HIVR4P // Virtual – the 4th HIV Research for Prevention Conference – took place on 27-28 January and 3-4 February 2021, bringing together over 1,800 delegates from 92 countries in a virtual format to focus on the latest research on HIV prevention science. HIVR4P // Virtual replaced the planned HIVR4P 2020, scheduled to take place in Cape Town, South Africa, in October 2020.

HIVR4P – the HIV Research for Prevention Conference – is a biennial meeting that brings together researchers on HIV vaccines, microbicides, pre-exposure prophylaxis (PrEP), basic scientists, social and behavioural scientists, implementers and community advocates to share knowledge and develop research collaborations.

The conference featured over 400 presentations in 23 oral abstract sessions, four plenaries, 10 symposia, three roundtables and two rapporteur sessions. Eighteen satellite meetings took place alongside the conference, and 266 on-demand posters were available through the conference platform.

HIVR4P // Virtual took place at a time of enormous challenges for HIV prevention. COVID-19 affected major HIV prevention clinical studies and slowed down

access to prevention, treatment and care for HIV and many related conditions. The conference showed the enormous contribution that HIV research has made to the development of COVID-19 treatments and vaccines, building on prior HIV research and existing trials infrastructure. The conference also showed that despite the challenges arising from the COVID-19 pandemic, HIV prevention research has continued to advance, bringing greater choice of prevention methods closer for millions.

“I was absolutely thrilled with this year’s HIVR4P – really, really well done. It far exceeded my expectations – the best part was realizing how much HIV science got done during a year (2020) that I thought might really be a dud.” – Survey respondent

DELEGATE PROFILE

HIVR4P // Virtual brought together 1,802 delegates from 92 countries compared with 1,426 delegates from 52 countries in 2018.

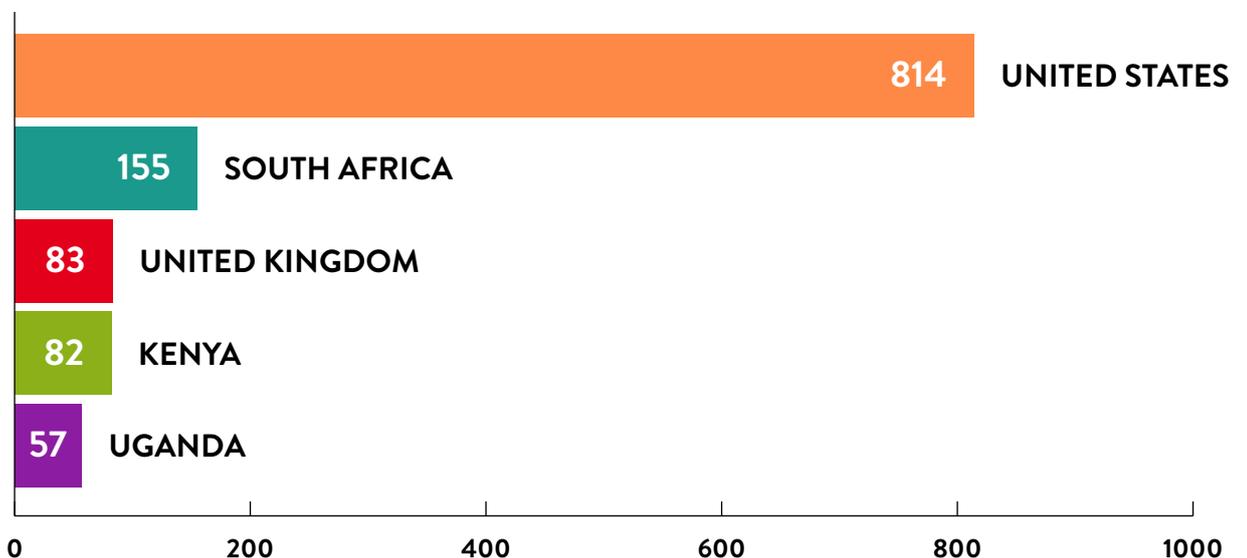


COUNTRY AND REGION

Forty-five percent of delegates came from the United States and Canada, 14% from Europe, 6% from Asia and the Pacific and 3% from Latin America and the Caribbean. Sub-Saharan Africa was strongly represented at HIVR4P // Virtual. Twenty-five percent of delegates came from this region compared with 21% at HIVR4P 2018, and three of the top five countries by registration were African nations.

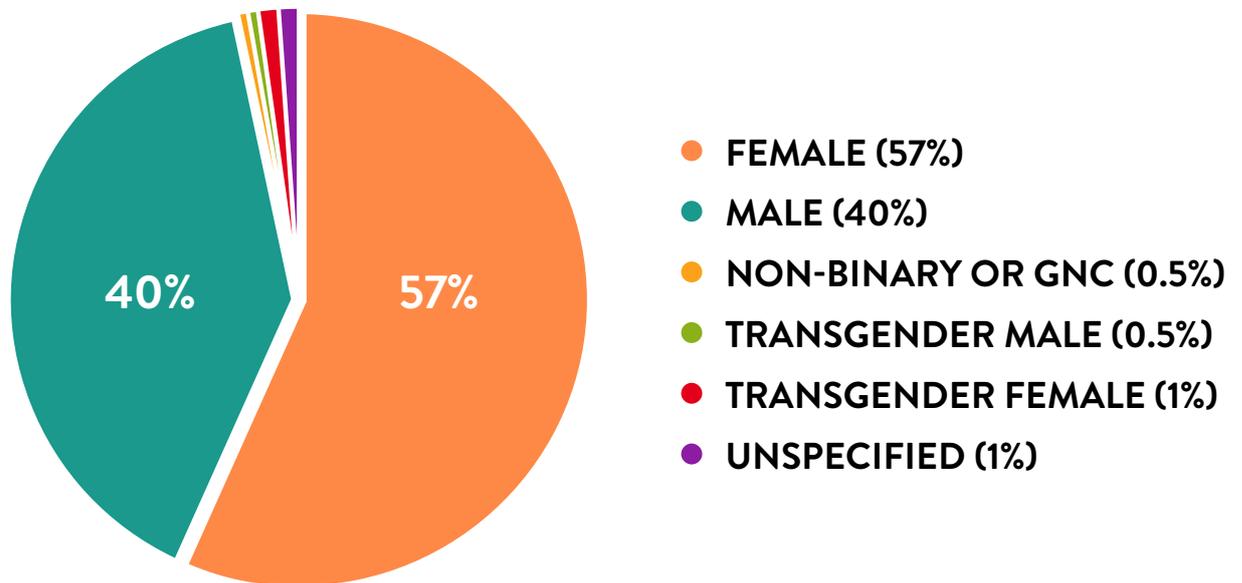
Sixty-one percent of delegate survey respondents reported that this was their first HIVR4P. Thirty-eight percent of survey respondents who reported

that this was their first HIVR4P came from Africa (38%) compared with 25% of conference delegates; this suggests that HIVR4P // Virtual may have been especially successful in broadening access to the conference among African researchers, implementers and community advocates.



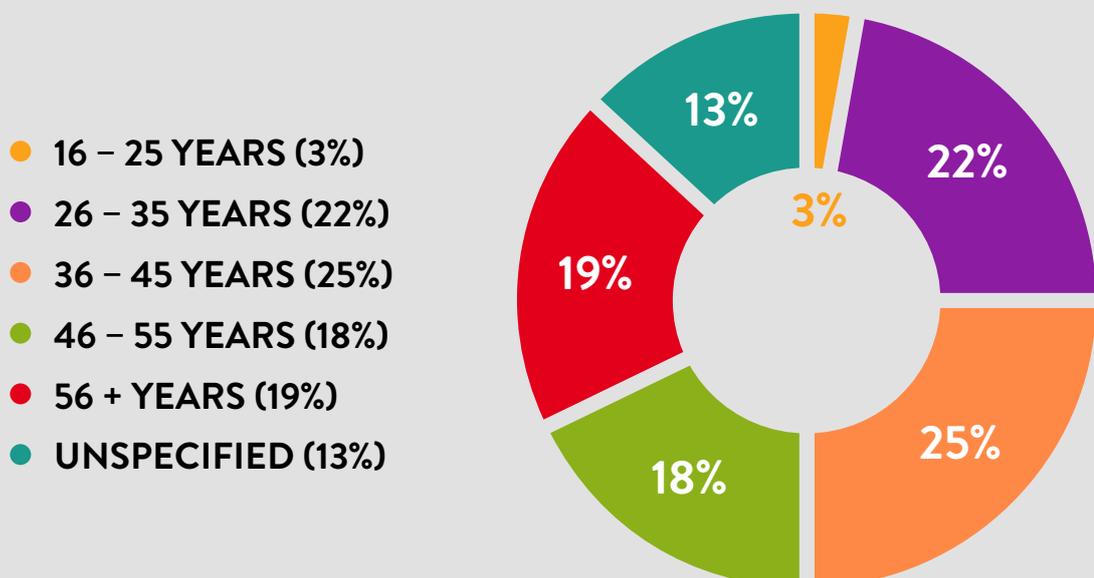
GENDER

A majority of delegates at HIVR4P // Virtual were female (57%).



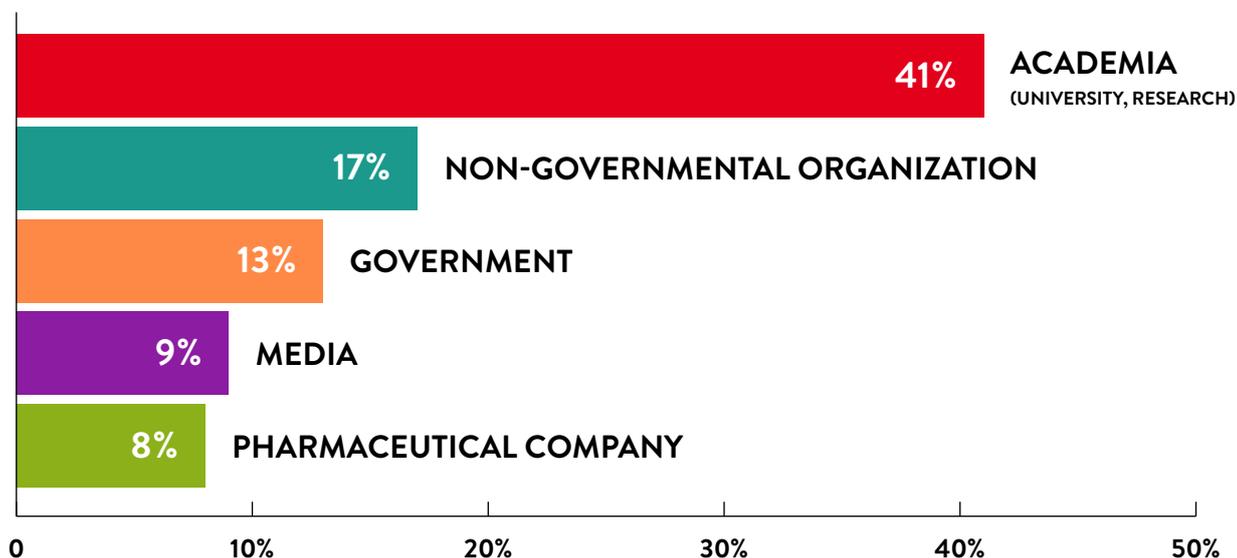
DELEGATES BY AGE RANGE

One in four delegates was younger than 36 years (25%).



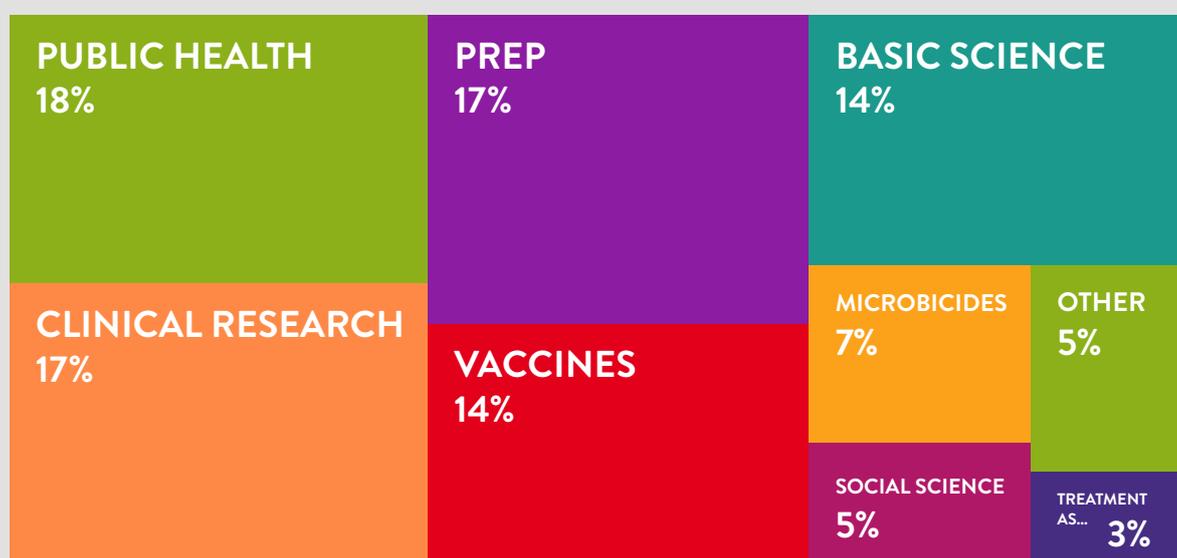
AFFILIATIONS AND INSTITUTIONS

In all, 41% of delegates at HIVR4P // Virtual were from academic institutions. Around one in six delegates was affiliated with a non-governmental organization and, among delegates from sub-Saharan Africa, 28% were affiliated with a non-governmental organization. Eight percent of delegates worked in pharmaceutical companies.



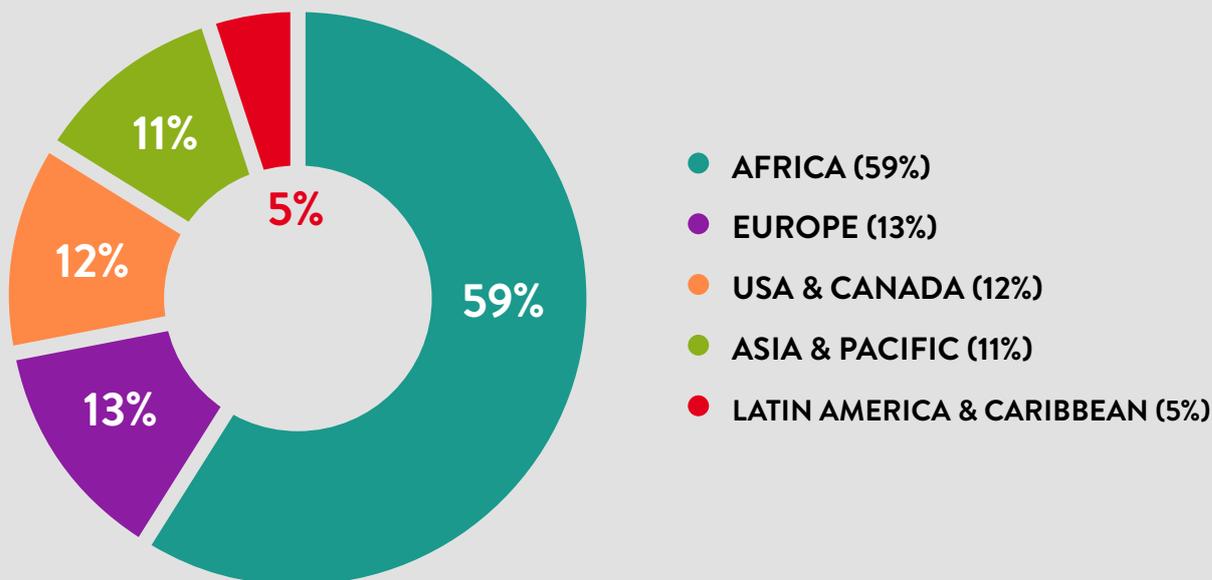
PRIMARY AREA OF HIV PREVENTION WORK

Delegates were evenly distributed across the various areas of HIV prevention work, with an emphasis on public health (18%), clinical research (17%), basic science (14%) and vaccines (14%). Around one in six delegates (17%) said their primary field of prevention work was PrEP research or implementation. The distribution of delegates between HIV prevention areas at HIVR4P // Virtual was similar to HIVR4P 2018.



SCHOLARSHIP AWARDS

A total of 382 scholarships were granted for HIVR4P // Virtual, including research scholarships, community scholarships and journalist fellowships.



Early-career researchers, community advocates, community prevention providers and journalists were selected through a competitive process that prioritized applicants from resource-limited settings. Fifty-nine percent of scholarship awardees were from sub-Saharan Africa, 13% from Europe, 12% from the United States and Canada, 11% from Asia and the Pacific and 5% from Latin America and the Caribbean. Scholarship awardees were evenly balanced by gender, and 41% were aged 35 years or under.

SCIENTIFIC HIGHLIGHTS

Anthony Fauci, Director of NIAID, drew attention to several parallels between the HIV and COVID-19 pandemics.

HIV PREVENTION RESEARCH AND THE COVID-19 PANDEMIC

HIVR4P // Virtual took place against the background of the largest global pandemic since the emergence of HIV in the early 1980s. Opening the conference, **Anthony Fauci**, Director of the US National Institute of Allergy and Infectious Diseases (NIAID), **drew attention to several parallels between the HIV and COVID-19 pandemics**. The following areas, he pointed out, showed the importance of learning from HIV in combatting the COVID-19 pandemic: the asymptomatic phase for transmission; the exacerbation of health disparities that already predisposed some to greater vulnerability; the importance of engaging the most affected communities in research; and the need to forcefully challenge denialism.

Learning from HIV vaccine research contributed to the very rapid development of a SARS-CoV-2 vaccine, Fauci stressed. HIV vaccine researchers learned that the pre-fusion conformation of the HIV envelope protein is highly immunogenic; applying this learning to vaccine development for respiratory syncytial virus (RSV) and MERS-CoV taught vaccine

researchers how to preserve this immunogenicity after vaccination. Structure-based design was subsequently employed to identify and stabilize the pre-fusion conformation of the spike protein of SARS-CoV-2, which went on to form the fundamental immunogen of five of the six SARS-CoV-2 vaccines being tested with US Government support. Furthermore, COVID-19 vaccine trials built on the global trials network developed for HIV vaccine research.

“Never would I have imagined that the lessons we learned from HIV/AIDS research and implementation of programmes would help us as it has thus far in addressing COVID-19, the most extraordinary outbreak of a respiratory-borne illness that we have faced in over a hundred years.” – Anthony Fauci, NIAID, United States

PROGRESS ON PREVENTION ACCESS: WE MUST GO FURTHER AND FASTER

Although almost one million people have started taking PrEP worldwide, use is still highly concentrated in countries that were early adopters of the prevention method [1]; over half of PrEP initiations have occurred in sub-Saharan Africa, chiefly in Kenya, South Africa and Zambia. **National guidelines, ambitious targets and prioritization of key populations have aided those countries that have made greater progress on PrEP roll out.** But global uptake was below the Joint United Nations Programme on HIV/AIDS (UNAIDS) target of 3 million taking PrEP by 2020.

In addition to increasing demand for PrEP through community outreach, there is also a need for **new PrEP options, greater investment in PrEP provision and greater integration with sexual and reproductive health services.** Access to healthcare without discrimination and investment in HIV prevention – “**science plus rights**” – also explained successes in reducing HIV incidence in places as diverse as Eswatini, Thailand, Vietnam and London, Winnie Byanyima, UNAIDS Executive Director, told the conference.

In 2014, UNAIDS set HIV prevention targets of 95% awareness of HIV status and 95% condom use at last sexual episode by 2030. **An analysis of data from 38 sub-Saharan African countries showed that few are on target to reach these goals by 2030** based on current progress. Using national datasets on HIV testing and condom use at last sexual episode and modelling changes in coverage to 2030, the study estimated that the probability of achieving 95% coverage was very low for both HIV testing (0% to 28.5%) and condom use (0% to 12.1%). The study projects that the countries with the highest coverage of annual HIV testing in 2030 will be Eswatini with 92.6%, Lesotho with 90.5% and Uganda with 90.5%, and the countries with the highest proportion of condom use will be Eswatini with 85%, Lesotho with 75.6% and Namibia with 75.5% [2].

NEW METHODS OF PrEP DOSING

Results of the HPTN 084 study showed that an injectable PrEP option was highly effective in preventing HIV in women and that the eight-week dosing pattern promoted high adherence to the prevention method.

The HPTN 084 study was carried out in seven countries in southern and eastern Africa and randomized 3,224 cisgender women to receive either an injection of long-acting cabotegravir every eight weeks or daily oral PrEP (tenofovir, or TDF, and emtricitabine). The study was stopped early after an interim analysis showed that women receiving cabotegravir had 89% fewer HIV infections than women in the oral PrEP arm [3]. Background HIV incidence in study site communities was around 3.5% a year.

In HPTN 084, HIV incidence was 1.9% in the oral PrEP arm and 0.2% in the injectable PrEP arm. Adherence to injectable PrEP was greater; women in the cabotegravir arm attended 93% of injection visits, whereas only 60% of women in the oral PrEP arm had blood levels of tenofovir consistent with daily dosing at week 4, and this proportion had fallen to 34% by week 57 of the study. Injections every eight weeks have the potential for integration with sexual and reproductive health visits, improving PrEP accessibility for women.

“We now have another preventive option for women and the more options we have, the more likely it is that people will find methods that will suit them over their life course.”

– Sinead Delany-Moretlwe, University of the Witwatersrand, South Africa

Monthly oral PrEP using the novel nucleoside reverse transcriptase translocation inhibitor, islatravir, may be feasible, the conference heard. Results of a Phase 2a dose-ranging and pharmacokinetic study in 192 volunteers showed that monthly oral dosing of islatravir (60mg or 120mg once a month) maintained trough concentrations 20- to 50-fold above the efficacy threshold [4]. In addition to offering convenient dosing, monthly oral PrEP would also provide the opportunity to deliver directly observed PrEP. Two large randomized studies will compare monthly dosing of islatravir with daily dosing of tenofovir and emtricitabine as PrEP.

An animal study of an implant containing tenofovir alafenamide (TAF) showed that six out of six macaques with TAF implants were protected against vaginal simian HIV (SHIV) infection after 12 challenges and four months' follow up while seven of eight macaques in the control arm were infected after a median of four challenges [5]. However, the study found a high frequency of dermal necrosis at the implant site, requiring further research on the implant technology and the minimum TAF dose necessary for protection.

An intradermal microarray patch that could deliver both an antiretroviral for prevention and a hormonal contraceptive is also in development [6]. Potential users in Uganda and South Africa would prefer a product that could be self-administered for up to an hour rather than being applied by a healthcare worker or worn permanently, reducing clinic visits and increasing user confidentiality. New options for PrEP delivery will encourage uptake by overcoming the perceived limitations of daily oral dosing.

PrEP IMPLEMENTATION

Moving PrEP from trials and demonstration studies to implementation and uptake requires an understanding of users' reasons for starting, sustaining or stopping PrEP. Studies presented at HIVR4P // Virtual demonstrated that stigma and disclosure of PrEP use play important parts in users' decision making, emphasizing the need for options that can preserve privacy and autonomy, especially for younger women.

Qualitative research undertaken by the Kenyan Medical Research Institute on reasons for PrEP discontinuation among men and women in Kenya showed that PrEP use was confused with antiretroviral use, leading to HIV-associated stigma for PrEP users [7]. Practical considerations, such as clinic distance and adverse effects, were important reasons for discontinuation, as were changed partnership situation and fatigue with daily pill-taking.

“The stigma that I could get from friends [...] because they could not tell the difference between PrEP and ARVs, and so when the stigma became too much, I had to pause it a little bit.”
– Participant in Kenyan Medical Research Institute study

Young women in South Africa who had higher PrEP adherence, as measured by tenofovir concentrations, had disclosed PrEP use more frequently [8], a qualitative study in rural and urban groups found. Study participants described disclosure “journeys” in which the establishment of networks of support through disclosure countered the undermining effects of stigma and disinformation about PrEP in the community. Effective use of oral PrEP in the study settings may be dependent on building disclosure skills that enable users to develop and navigate PrEP support systems, the study concluded.

Daily oral PrEP has been promoted as the default dosing option in many settings, but daily pill-taking has been cited in numerous studies as a reason for stopping PrEP. Research in South Africa, Uganda and Zimbabwe explored attitudes towards event-driven PrEP in young people aged 13-24 in four cities, finding that 60% of respondents would prefer event-driven PrEP [9]. Event-driven PrEP was more popular among men and 18-24 year olds than among younger adolescents, but the preference for daily PrEP increased with partner numbers and frequency of sex. Daily PrEP was strongly preferred by people who perceived themselves to be at higher risk of HIV acquisition.

Recognizing the higher risk of HIV acquisition among pregnant and postpartum women, South African PrEP guidance was updated in December 2020 to extend eligibility to this population. An observational cohort study conducted in Cape Town, PrEP-PP, reported on the uptake of PrEP, retention and adherence among 712 pregnant women enrolled in 2019 and 2020 [10]. Ninety-one percent began PrEP at their first antenatal visit and 68% continued to take PrEP three months after initiation. PrEP persistence declined during the COVID-19 lockdown and among postpartum women, so that by six months after initiation, 48% of women maintained PrEP use. Lower PrEP persistence was associated with greater gestational age, lower education and adverse effects.



ANTIBODY-MEDIATED PREVENTION

Vaccine researchers have identified broadly neutralizing antibodies (bNAbs) that can neutralize a wide range of HIV variants. Passive immunization can be used to deliver bNAbs. Passive immunization for HIV prevention is being explored as another prevention option. VRC01 was the first bNAb to be tested for prevention efficacy and was delivered by infusion.

Two studies presented at HIVR4P // Virtual provided proof of concept for antibody-mediated prevention (AMP). The two AMP studies, in women in sub-Saharan Africa (HVTN 703) and men who have sex with men and transgender women in the Americas (HVTN 704), were designed to test whether eight-weekly intravenous infusions of VRC01 could prevent HIV infection. Participants were randomized to receive either 10mg/kg or 30mg/kg infusions of VRC01 or a placebo infusion and were followed for 80 weeks.

VRC01 did not reduce the risk of HIV infection compared with placebo in the overall study population, but did reduce the incidence of infection with HIV sensitive to VRC01 by 75%. The study investigators concluded that the lack of prevention efficacy in this study is likely to have been due to a lower than anticipated prevalence of viruses sensitive to VRC01 [11,12].

These large proof-of-concept studies demonstrated the feasibility and safety of delivering bNAbs through infusions and that it was possible to recruit and retain over 4,600 people in trials of this prevention method. **The findings from HVTN 703 and 704 will also inform future study designs.** The studies identified the serum neutralization titer associated with prevention efficacy and the sensitivity of viruses to neutralization [13], strengthening the case for the development of bNAb combinations. **Further studies will test combinations of broadly neutralizing antibodies. A strong antibody pipeline is in development,** with trials underway designed to select the best triple combinations for a larger study commencing in 2022 [14].

MULTIPURPOSE PREVENTION TECHNOLOGIES

Products that can prevent both unwanted pregnancy and HIV infection would allow greater integration of HIV prevention into sexual and reproductive health services, as well as control over HIV prevention methods for women. Results of early-stage safety and pharmacokinetic studies of intravaginal rings that release an antiretroviral agent and the hormonal contraceptive, levonorgestrel, were presented at the conference [15,16,17]. Phase 1 studies showed that products were safe and delivered adequate concentrations of levonorgestrel and the antiretroviral drugs, dapivirine or tenofovir (TDF).

The early-stage studies were designed to address questions regarding usage and acceptability, including the impact of removing the ring on antiretroviral concentrations and the impact of the levonorgestrel dose on menstrual irregularity and bleeding. The studies found that while tenofovir levels in cervicovaginal fluid remained above the effective concentration when the intravaginal ring was removed for three days, dapivirine levels fell rapidly in cervicovaginal fluid after removal, but not in plasma. The implications of changes in cervicovaginal drug concentrations for prevention of HIV infection remain unclear.

The acceptability of multipurpose prevention methods was also investigated in heterosexual couples in Uganda and Zimbabwe. **The CUPID study found that 91% of women and men would prefer a “two-in-one” prevention method.** A single multipurpose method was seen as easier to manage [18]. Monthly oral dosing was preferred to an intravaginal method.



HIV VACCINES

Rational vaccine design uses the characteristics of a protective immune response to engineer immunogens that will elicit protective responses. In the case of HIV, broadly neutralizing antibodies represent a protective response, and the aim of vaccine developers is to identify immunogen constructs that will elicit bNAbs targeting multiple sites on the HIV envelope.

The results of the AMP studies confirm that developing HIV vaccine candidates to elicit bNAbs is a sound strategy. Furthermore, the studies indicate what levels of circulating antibodies are necessary for protection.

“We know what levels of circulating antibodies a vaccine would need to elicit for effective protection from HIV infection. Having this benchmark in mind will be a useful tool as we design and evaluate HIV vaccine candidates.”

– Mark Feinberg, International AIDS Vaccine Initiative, United States

However, vaccines are not sufficient to induce broadly neutralizing antibodies. **Instead, vaccines must stimulate the generation of germline B-cell precursors that are essential to produce bNAbs.** Prime-boost vaccine regimens should stimulate naïve B-cell production and shepherd these cells towards differentiation into memory B-cells that will secrete bNAbs.

Germline targeting was reviewed in several sessions. Emilie Seydoux, Fred Hutch, and colleagues showed that it is possible to develop a VRC01-class germline targeting immunogen derived from anti-idiotypic antibodies – an advance that could help accelerate the development of an HIV vaccine [19]. **Results of IAVI G001, a Phase 1 clinical trial of eOD-GT8, provided proof of principle for germline targeting;** the study demonstrated that the prime dose of the vaccine induced VRC01-class IgG B-cells in all but one of the 48 participants [20].

ONLINE PARTICIPATION

During the conference, 1,485 unique visits to the conference platform took place. Delegates viewed live and on-demand content 17,980 times during the conference, and satellite sessions received 2,636 unique visits.

The most popular sessions covered a wide spectrum of HIV prevention research, including vaccine technologies, multipurpose prevention technologies, new delivery mechanisms for PrEP and the antibody infusion pipeline.



Most popular search term on the HIVR4P // Virtual website:

islatravir

Other popular search terms:

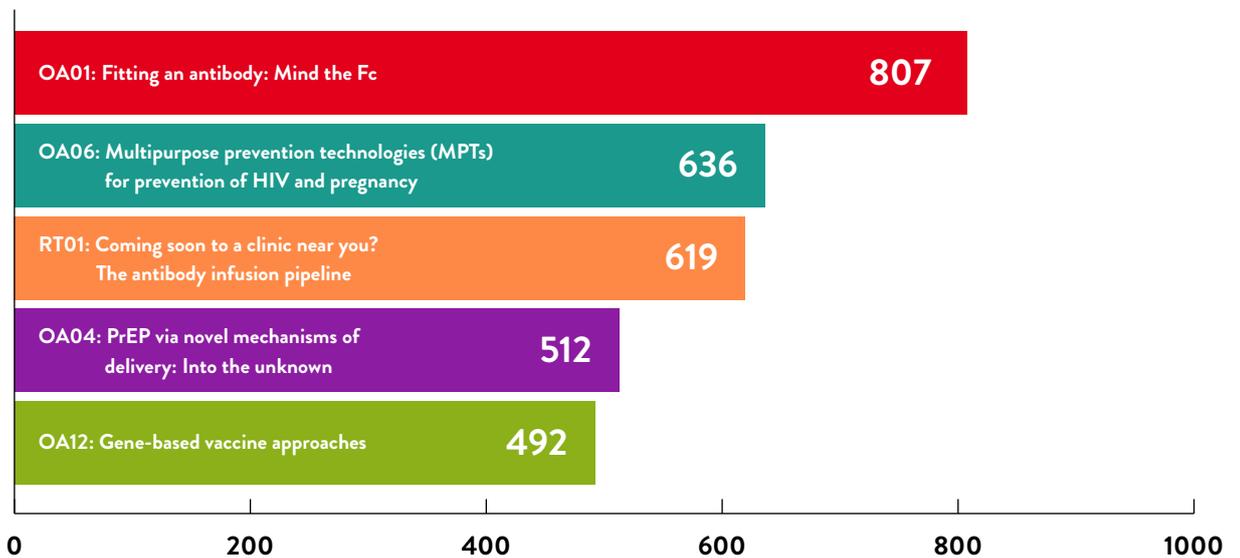
🔍 HPTN 084 🔍 PrEP
 🔍 men 🔍 AMP
 🔍 Fauci



IAS Corner, where delegates could find information on current IAS initiatives, received:

641
unique visitors

MOST-VIEWED SESSIONS:



The Advocacy Corner provided a virtual space where delegates representing community, advocacy and civil society could network and discuss advocacy priorities arising from the science presented at the conference; 383 unique visitors used the Advocacy Corner.

“This Advocacy Corner was so lively, and I really learned a lot.”

– Survey respondent

MEDIA COVERAGE

HIVR4P // Virtual and the accompanying IAS COVID-19: Prevention Conference attracted strong media coverage; 263 news stories covered science and advocacy topics emerging from HIVR4P // Virtual and the IAS COVID-19: Prevention Conference. These included 80 news stories filed by 50 media fellows. The topics attracting greatest media attention included the 90-day dapivirine vaginal ring, the results of the HPTN 084 study of long-acting injectable cabotegravir as PrEP, progress towards HIV elimination goals, an islatravir implant for PrEP, and the results of the AMP studies of bNAbs for HIV prevention.

The conference also gained a large audience on social media. Tweets from the HIVR4P // Virtual official account were viewed 147,786 times and tweets using the HIVR4P // Virtual hashtag were viewed 2,936,516 times. The HIVR4P // Virtual Facebook page received 21,976 visits.



HOW DID WE DO?

HIVR4P // Virtual delegates were invited to participate in an online delegate survey after the conference. A total of 422 responses were received from delegates residing in 60 of the 92 countries represented at the conference, a response rate of 23% (compared with 28% in 2018).

DELEGATE SURVEY RESULTS

- Of survey respondents who shared their gender, 41% identified as male (including two transgender males) and 56% identified as female (including one transgender female); 1% identified as non-binary; and 2% declined to answer the question.
- Survey respondents were predominantly aged 26–35 years (29%) or 36–45 years (25%). Just under a third of respondents were aged 46 or over (18% were aged 46–55 years and 15% aged 56 or over). Five percent of respondents were under 26 years old. Eight percent did not specify an age.
- Most respondents worked in academia (43%), non-governmental organizations (22%) or government (10%). Few respondents were from people living with HIV groups/networks, grassroots community-based organizations (6%) or clinical settings (3%).
- Two-thirds of respondents had been working in the HIV field for at least six years (67%), 21% for 6–10 years, 16% for 11–15 years and 30% for at least 15 years. Ten percent were newcomers (0–2 years).
- A total of 61% reported that this was their first HIVR4P.
- Respondents were most likely to identify public health (21%), clinical research (19%) or basic science (16%) as their primary field of prevention work. Vaccines (12%), PrEP (9%), social science (8%) and microbicides (6%) made up the remainder.
- Survey respondents were more likely to be from an African country than conference delegates as a whole (40% vs. 25%) and less likely to be from the United States or Canada (33% vs. 45%) or Europe (11% vs. 14%). Survey respondents were slightly more likely to be aged 26–35 years than the overall delegate population (29% vs. 22%).
- Otherwise, the distribution of survey respondents by gender, age, work setting and primary prevention interest was similar to the overall delegate profile.

WHAT DID PEOPLE GAIN FROM HIVR4P // VIRTUAL?

“As an advisor to policy makers, the discussion and findings around PrEP highly interested me. I found most of the findings very compelling, especially on factors that deter uptake or continuance of oral PrEP. These discussions have given me a new scope to look at in my country, Zambia, with regards to how we administer PrEP.” – Survey respondent

NEW KNOWLEDGE OF HIV PREVENTION RESEARCH

Eighty-eight percent of survey respondents were satisfied or very satisfied with knowledge acquired at HIVR4P // Virtual. They highlighted PrEP (43%), multipurpose prevention technologies (40%) and broadly neutralizing antibodies (35%) as areas in which they had gained a lot of knowledge. Eighty-two percent of survey respondents said that HIVR4P // Virtual had helped them identify knowledge gaps or new research questions in HIV prevention to a great or moderate extent.

Respondents were more likely to identify cabotegravir long-acting (CAB-LA) injectable PrEP as their key takeaway finding from the conference than any other topic.

“CAB-LA will be a fantastic option for HIV prevention once it is approved!”

NEW AWARENESS OF THE EXPANDING RANGE OF PREVENTION OPTIONS

Asked about their key takeaway message from HIVR4P // Virtual, delegates frequently stressed the expanding range of HIV prevention options and the importance of choice of prevention methods.

“New opportunities in PrEP are coming. We need to continue exploring people’s needs in the field.”

“There is tremendous progress [being] made in discovering HIV prevention tools. There are also a number of products in the research pipeline that are promising. There is, however, a lot of ground to be covered to ensure these products have the impact they should by reaching the communities who urgently need them.”

“Choice in HIV prevention is crucial!”

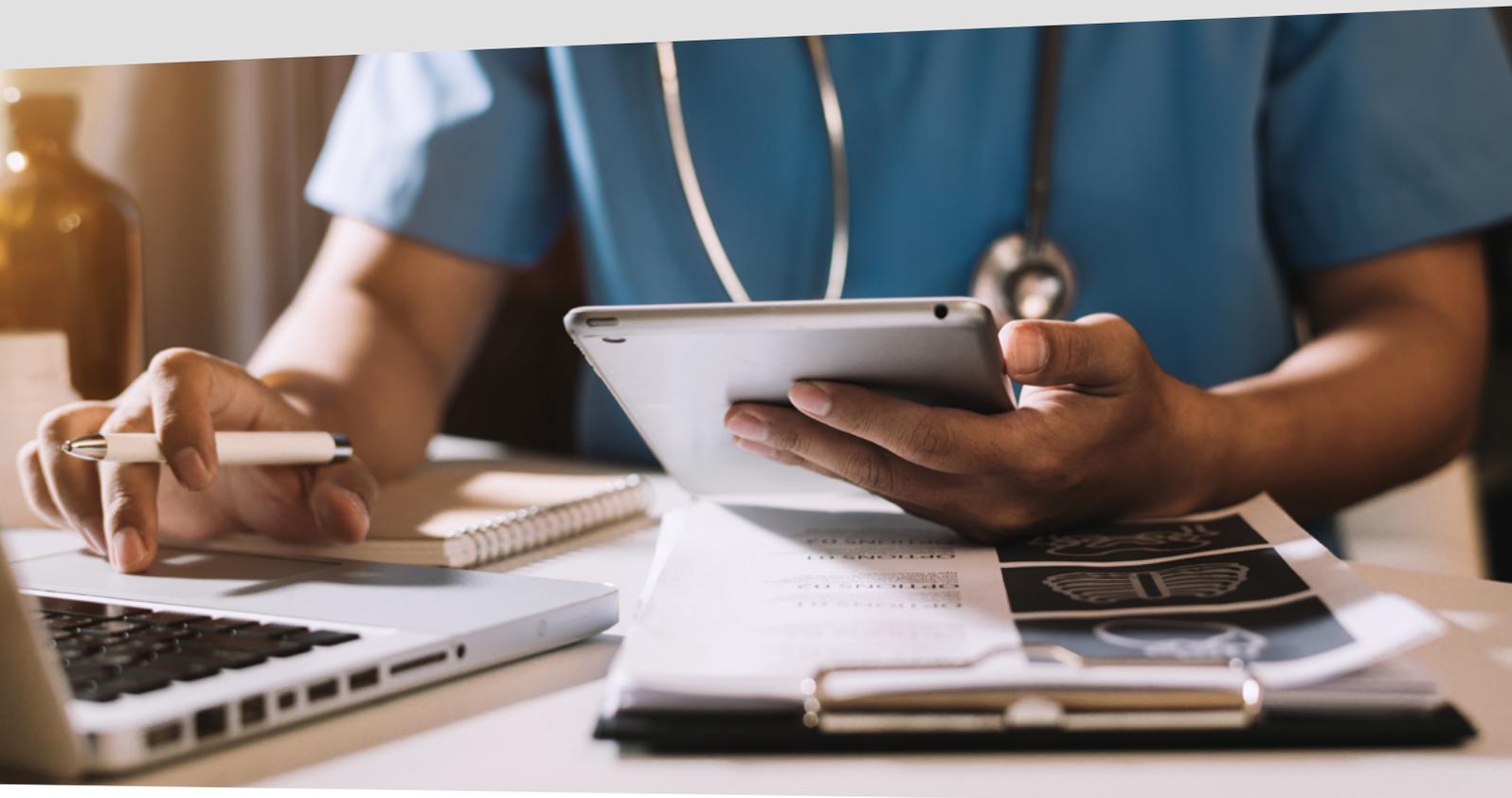
INTEGRATION

Eighty-nine percent of respondents agreed that they had learned how to integrate HIV prevention services into a range of settings, including sexual and reproductive health. Delegates were especially

interested in multipurpose prevention technologies. Forty percent of respondents said they learned a lot about multipurpose prevention technologies at HIVR4P // Virtual.

“We need to focus more on multipurpose prevention technologies and support integration of services, especially for key populations.”

“I am impressed by the strides made in multipurpose technologies and how these interventions are being made accessible to the target populations via clinical trials.”



KEY POPULATIONS AND STRUCTURAL ISSUES

Respondents highlighted the prevention needs of key populations as an important area of learning at HIVR4P // Virtual; 33% said that they had learned a lot on this topic. Delegates frequently highlighted this topic as a key takeaway message from the conference.

Seventy-three percent of respondents agreed that they had learned about structural issues affecting HIV prevention to a great or moderate extent during the conference.

COMMUNITY ENGAGEMENT

A key cross-cutting theme in survey responses was the value that delegates placed on learning about strategies for community engagement in research and implementation. Respondents appreciated opportunities to learn about how researchers had

engaged communities in HIV prevention research and service delivery and to hear from community members about the roles they had played in HIV prevention research.

“Involvement of communities at every level of HIV prevention is key.”

“I learned how researchers can do better to engage more communities earlier and more effectively, e.g., engagement of African men and transgender women who have sex with men in HIV research.”

COVID-19 AND HIV PREVENTION

Survey respondents frequently commented on the ways in which HIV prevention research has contributed to mitigation of the COVID-19 pandemic, notably by building on vaccine research and research infrastructure.

They also expressed concerns about the COVID-19 pandemic’s disruption of HIV service delivery and research, as well as a loss of global and national focus on HIV due to the emergence of a new infectious disease challenge.

“The lessons learned from the HIV pandemic in virology, immunology, drug development, community networking and activism have helped prepare us for COVID-19.”

“HIV researchers focused on COVID, healthcare and lab capacity were stretched to support the pandemic, and [there is a] risk that we will lose gains in HIV prevention.”

WILL IT MAKE A DIFFERENCE?

Eighty-nine percent of respondents expected to develop new work and 86% planned to develop new collaborations after HIVR4P.

IMPACT ON PARTICIPANTS' WORK

Almost two-thirds of delegates expected to make changes to their work because of what they learned at HIVR4P // Virtual. Sixty-two percent said what they had learned at the conference would change the way they thought about or implemented their work to a great or moderate extent. Sixty-five percent said they would refine or improve their existing practices or methodologies as a result of what they had learned to a great or moderate extent.

“My take-home message from HIVR4P is to make sure I am doing my best and continue to learn to be culturally competent when doing research in HIV prevention. Also, making sure that I integrate the epidemiology of HIV when implementing new programmes or interventions. I also want to create novel approaches to prescribing and access to PrEP.”

Eighty-nine percent of respondents expected to develop new work and 86% planned to develop new collaborations after HIVR4P.

“Good pioneering work was highlighted during the conference, and the live session on future of vaccine research and HIV prevention was the one I liked the most. I plan to take up some work on bNABs on the areas envisioned in the talk.”

IMPACT ON POLICY AND PROGRAMMING

Forty-five percent said that they expected HIVR4P // Virtual to strengthen their advocacy or policy work to a great or moderate extent.

“As a social activist, I learned more than I have in years from a medical perspective. It has shifted my perspectives and will affect how I run programmes for young women in my country, Eswatini.”

“Integration of PrEP into SRH services: Don't leave STIs behind! I really learned a lot from this, and it surely informs my advocacy strategy.”

DID THE CONFERENCE ACHIEVE ITS OBJECTIVES?

Despite the challenges of the virtual conference format, 68% agreed that the conference had provided new opportunities for collaboration.

OBJECTIVE 1

PRESENT NEW SCIENTIFIC RESEARCH FINDINGS, AND ENHANCE GLOBAL SCIENTIFIC COLLABORATIONS AND KNOWLEDGE, IN ALL ASPECTS OF BIOMEDICAL HIV PREVENTION RESEARCH, IMPLEMENTATION, REVIEW, EDUCATION AND ACCESS.

Overall, 84% of delegates agreed that the conference had achieved this objective. Ninety-one percent of delegates agreed that their knowledge of new biomedical prevention interventions, such as long-acting injectable PrEP and broadly neutralizing

antibodies, had increased. Despite the challenges of the virtual conference format, 68% agreed that the conference had provided new opportunities for collaboration.

“I have a broader and deeper understanding of the wide array of prevention approaches for diverse populations of women and men than I did before attending this conference. I have a stronger grasp of technical and scientific developments in HIV prevention. I became familiar with new terms, advances and leaders in different areas of the HIV prevention field. It is essential for those of us working on different prevention approaches to integrate perspectives from other sub-fields into our own work.”

OBJECTIVE 2

REFINE HIV PREVENTION RESEARCH AGENDAS TO REFLECT IDENTIFIED OPPORTUNITIES AND KNOWLEDGE GAPS.

Eighty-nine percent of delegates agreed that HIVR4P // Virtual had achieved this objective. In particular, 92% agreed that new knowledge or skills gained at the conference would help them plan new research. Delegates frequently stressed the growing range of HIV prevention options in their take-home messages from HIVR4P // Virtual and emphasized the importance of implementation research in learning how to use these interventions effectively.

“The research community has made bold investments in prevention modalities that are starting to bear fruit. However, we need to be intentional in how those products come to market to ensure access for the most impacted populations.”

OBJECTIVE 3

ADVANCE EVIDENCE-INFORMED AND HUMAN RIGHTS-BASED HIV PREVENTION APPROACHES, TAILORED TO REDUCE HEALTH DISPARITIES AND MEET THE NEEDS OF PARTICULARLY AT-RISK AND VULNERABLE GROUPS, INCLUDING: ADOLESCENTS; YOUNG ADULTS AND WOMEN IN HIGH-BURDEN SETTINGS; DISPLACED POPULATIONS; MEN WHO HAVE SEX WITH MEN; PRISONERS AND OTHER INCARCERATED PEOPLE; PEOPLE WHO USE DRUGS; SEX WORKERS; AND TRANSGENDER PEOPLE.

Most delegates (93%) agreed that this objective had been achieved, referring frequently to new knowledge they had gained on the impact of HIV stigma on HIV prevention, structural barriers to access to HIV prevention services and the

prevention needs of key populations. Almost all delegates (98%) agreed that HIVR4P // Virtual strengthened human rights-based and evidence-informed approaches to HIV prevention.

“Non-biomedical factors (behavioural, community, structural, policy) are critical to successful biomedical research and eventual implementation to achieve population-level impact. It was important to see this emphasis in a biomedically leaning forum.”

“As a first-time attendee, I LOVED the focus on equity!”

OBJECTIVE 4

SHARE INFORMATION ON ADVANCES AND CHALLENGES RELATED TO GENERATING SUPPORT AND FUNDING FOR BIOMEDICAL HIV PREVENTION.

Eighty percent of delegates agreed that this objective had been met. Delegates frequently drew attention to the challenges for HIV prevention research, programming and funding posed by the COVID-19 pandemic. Most delegates (91%) agreed that taking part in the conference would enable them to plan new work and develop policy, and 68% said that HIVR4P // Virtual had established a platform to create new partnerships and opportunities for potential programmes or research initiatives.

“Prevention investments are dwindling, and successes are being eroded by COVID disruptions, yet risk is increasing for many people. We need to work very quickly to prevent us losing ground. Increase access to the modalities that are available and prepare for the success of the next-generation products that are clearing the pipeline.”

HOW CAN WE DO BETTER NEXT TIME?

Delegates missed opportunities for networking and informal discussion and found that juggling professional demands, home life and time zones affected their ability to absorb new information.

CONFERENCE FORMAT:

Although delegates appreciated the opportunity to attend a virtual scientific conference, there was a clear preference for a return to an in-person meeting for the next HIVR4P; 47% wanted an in-person conference next time and 42% wanted a hybrid in-person/virtual event.

Delegates missed opportunities for networking and informal discussion and found that juggling professional demands, home life and time zones affected their ability to absorb new information. However, many delegates valued the opportunity to watch on-demand sessions after the conference.

47%

wanted an in-person
conference next time

42%

wanted a hybrid
in-person/virtual conference
next time

EXPLORE WAYS TO FACILITATE NETWORKING AND COLLABORATIVE OPPORTUNITIES FOR VIRTUAL PARTICIPANTS:

The majority of delegates favoured the retention of a virtual element in the next HIVR4P to widen access, but want to see enhanced opportunities for networking for those who cannot attend in person.



GIVE MORE ROOM TO IMPLEMENTATION SCIENCE:

51%

wanted to see more emphasis on implementation science next time

Over half (51%) of delegates wanted to see more emphasis on implementation science at the next conference, reflecting the movement of prevention technologies from clinical trials to roll out.

The complexity of adapting new prevention methods to different settings means that more time is needed to consider how to do implementation research and to learn from existing programmes, delegates commented.

CONTINUE AND EXPAND THE FOCUS ON COMMUNITY ENGAGEMENT IN INVITED-SPEAKER SESSIONS:

Community engagement was a strong theme in survey comments. Delegates valued learning about strategies for community engagement and wanted more of it at future conferences. The conference also plays a significant role in developing the skills and knowledge of community advocates, so delegates wanted the conference organizers to explore ways in which complex topics in prevention science can be made more accessible to people new to the field.

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ABOUT HIVR4P

HIVR4P fosters interdisciplinary knowledge-exchange on HIV vaccines, microbicides, PrEP, treatment as prevention and biomedical interventions as well as their related social and behavioural implications.

The great strength of HIVR4P is the participation of researchers, policy makers, implementers and advocates working across the spectrum of biomedical interventions and scientific disciplines informing state-of-the-art HIV prevention from pre-clinical research through to implementation.

ABOUT THE IAS

The International AIDS Society leads collective action on every front of the global HIV response through its membership base, scientific authority and convening power. Founded in 1988, the IAS is the world's largest association of HIV professionals, with members in more than 170 countries. Working with its members, the IAS advocates and drives urgent action to reduce the impact of HIV. The IAS is also the steward of the world's most prestigious HIV conferences: the International AIDS Conference, the IAS Conference on HIV Science, and the HIV Research for Prevention Conference.

