



IAS 2019

10TH IAS CONFERENCE ON HIV SCIENCE
Mexico City, Mexico  21-24 July 2019



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Table of contents

Sponsors.....	2
Acronyms and abbreviations.....	3
IAS 2019 at a glance: Science and diversity for impact.....	4
Introduction.....	6
Who was there?.....	8
What was shared?.....	10
90-90-90 and targets.....	10
Treatment.....	10
New developments in ART.....	11
Pre-exposure prophylaxis and new prevention tools.....	11
HIV vaccine.....	12
HIV cure.....	12
Key populations.....	13
Vulnerable populations.....	13
Multi-level strategies for prevention: financial incentives and economic and structural interventions.....	13
Co-infections and co-morbidities.....	14
Integration with other disease areas.....	14
Syndemics.....	14
Diagnostics and digital engagement.....	15
Economics, financing and sustainability.....	15
Stigma and other structural barriers.....	15
How was it covered?.....	16
How did it go?.....	18
What did people get out of it?.....	19
Will it make a difference?.....	23
Conclusions.....	24
Did we achieve our objectives?.....	24
How can we do better next time?.....	26

3TC	Lamivudine
ART	Antiretroviral therapy
DMPA-IM	Depo-medroxyprogesterone acetate intramuscular
DTG	Dolutegravir
EFV	Efavirenz
FTC	Emtricitabine
HDAC	Histone deacetylase
HIV	Human immunodeficiency virus
HVTN	HIV Vaccine Trials Network
IAS	International AIDS Society
IAS 2017	9th IAS Conference on HIV Science
IAS 2019	10th IAS Conference on HIV Science
IUD	Intrauterine device
LNG	Levonorgestrel
MSM	Men who have sex with men
NGO	Non-governmental organization
NTDs	Neural tube defects
PEP	Post-exposure prophylaxis
PrEP	Pre-exposure prophylaxis
SRH	Sexual and reproductive health

SRHR	Sexual and reproductive health and rights
STIs	Sexually transmitted infections
TAF	Tenofovir alafenamide
TB	Tuberculosis
TDF	Tenofovir disoproxil fumarate
TLR7	Toll-like receptor 7
Trans	May refer to transgender, transsexual or any other non-binary identification of sex or gender
UNAIDS	Joint United Nations Programme on HIV and AIDS
U=U	Undetectable equals untransmittable
WHO	World Health Organization

Terminology

Key populations refer to men who have sex with men, people who inject drugs, sex workers and transgender people. **Vulnerable populations** refer to people living with HIV and groups outside of key populations who may be at increased vulnerability of acquiring HIV, for example, adolescents, indigenous people, refugees, internally displaced persons, migrants, people with disabilities, people in prisons and other closed settings, people of advanced age, women and girls.



IAS 2019

AT A GLANCE:
SCIENCE AND DIVERSITY FOR IMPACT



341 ORIGINAL
MEDIA
STORIES



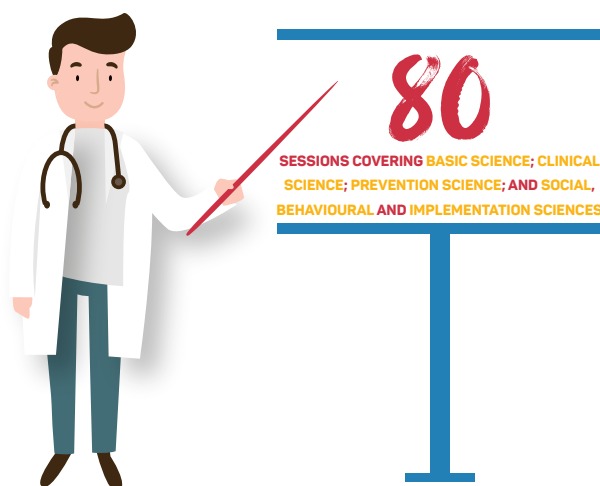
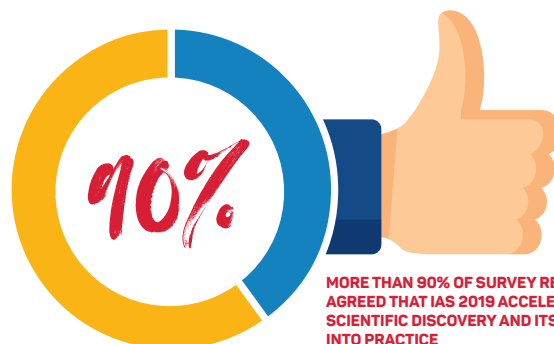
1,300

ABSTRACTS SELECTED FROM
MORE THAN 3,000 SUBMISSIONS



5,900

HIV PROFESSIONALS FROM
NEARLY 130 COUNTRIES



WOMEN REPRESENTED MORE THAN HALF (52%) OF PRESENTERS



Introduction

On 21-24 July 2019, close to 6,000 HIV professionals and community members met at the 10th IAS Conference on HIV Science (IAS 2019) in Mexico City. The conference had returned to Latin America for the first time since it was held in Brazil in 2005. It presented latest advances in HIV science and drew attention to the global need for political leadership to overcome cuts in HIV funding, advance a human rights-led response to HIV and address the structural and social barriers that continue to impede the response.

IAS 2019 raised awareness of the current challenges faced by the Latin American region where HIV incidence is rising, levels of population mobility are high, humanitarian crises continue, access to affordable medicines is uneven and a funding gap [1] persists. The Caribbean shares many of these challenges, although HIV incidence in the region has shown an encouraging decline since 2010 [2].

As well as 39 high-quality abstract-led scientific sessions – of 1,332 submitted abstracts, 35% were accepted following rigorous peer review – IAS 2019 offered 40 invited-speaker sessions, nine plenary keynote presentations and over 50 satellite meetings and pre-conference meetings.

IAS 2019 represented a milestone in progress towards greater diversity in HIV science. The majority (52%) of presenting authors were located outside North America and Europe, with 29% working in sub-Saharan Africa and 15.5% in Asia and the Pacific region. Women represented more than half (52%) of presenters at IAS 2019 and nearly 40% of presenters were under the age of 35. As we endeavour to end the AIDS epidemic, the work ahead will be in the hands of these young researchers.

"We must ensure that all those affected by HIV are able to access health care as a fundamental human right and that is how our success will be measured."

– ANTON POZNIAK, IAS PRESIDENT AND IAS 2019 INTERNATIONAL SCIENTIFIC CO-CHAIR

"Latin America is one of the most unequal regions of the world. Efforts to control the HIV epidemic will only succeed when the enormous differences in income distribution and well-being are addressed."

– BRENDA CRABTREE-RAMIREZ, IAS 2019 LOCAL SCIENTIFIC CO-CHAIR





IAS 2019 Co-Chairs, Brenda Crabtree-Ramirez and Anton Pozniak sharing the stage for the IAS Opening Ceremony

Who was there?

IAS 2019 brought together 5,954 participants, including 4,941 delegates from 129 countries. The remainder were holders of day passes, accompanying visitors, volunteers, organizers and staff.

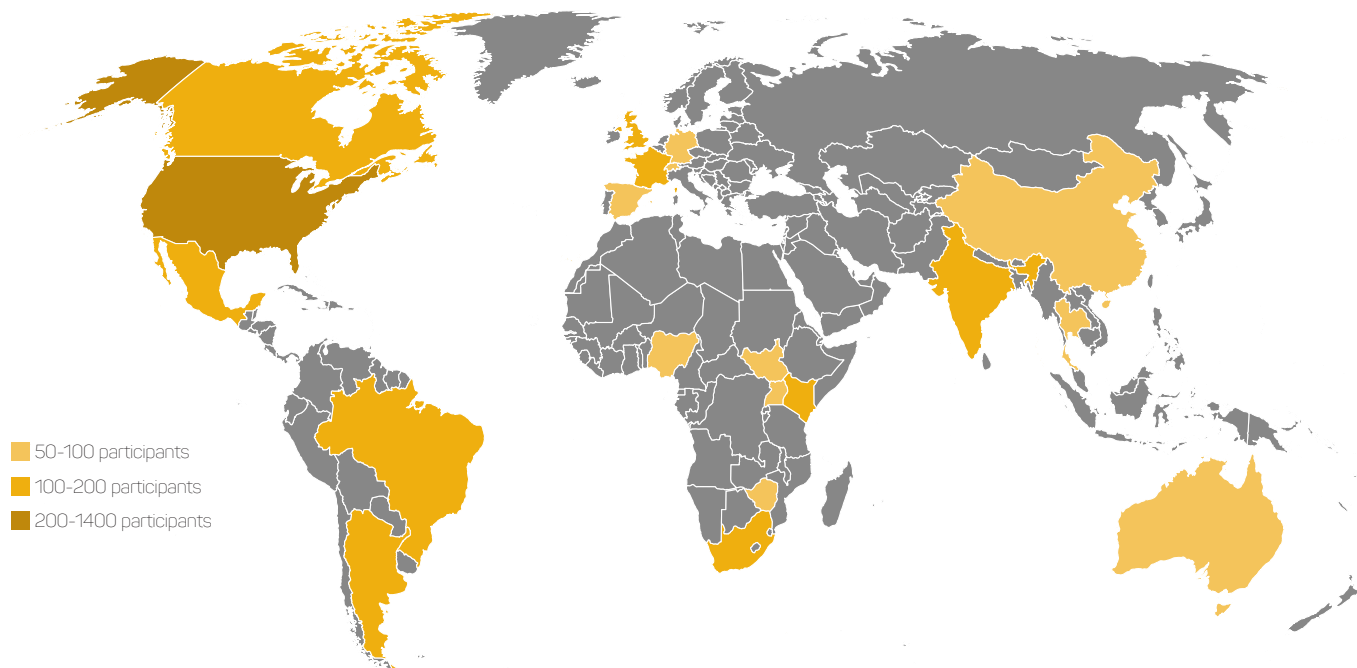
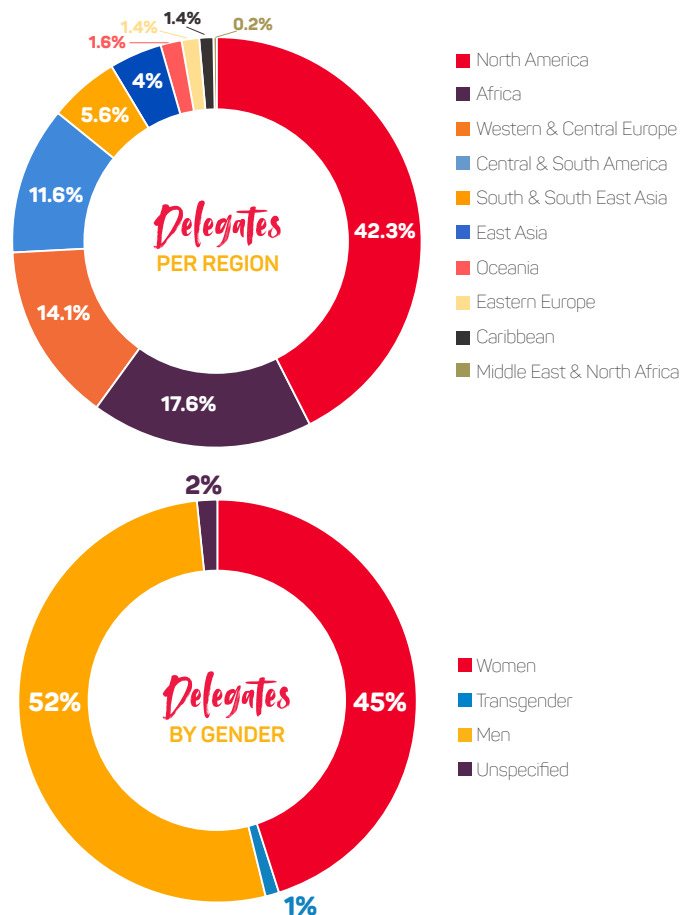
Country and region

The regions with the largest representation at IAS 2019 were North America (42%), Africa (17%), Western and Central Europe (14%) and South and Central America (11%). This compares with 31% for Western and Central Europe and 26% for North America in 2017.

Gender

There were 7% more men than women at IAS 2019. The gender split was larger this year than in 2017.

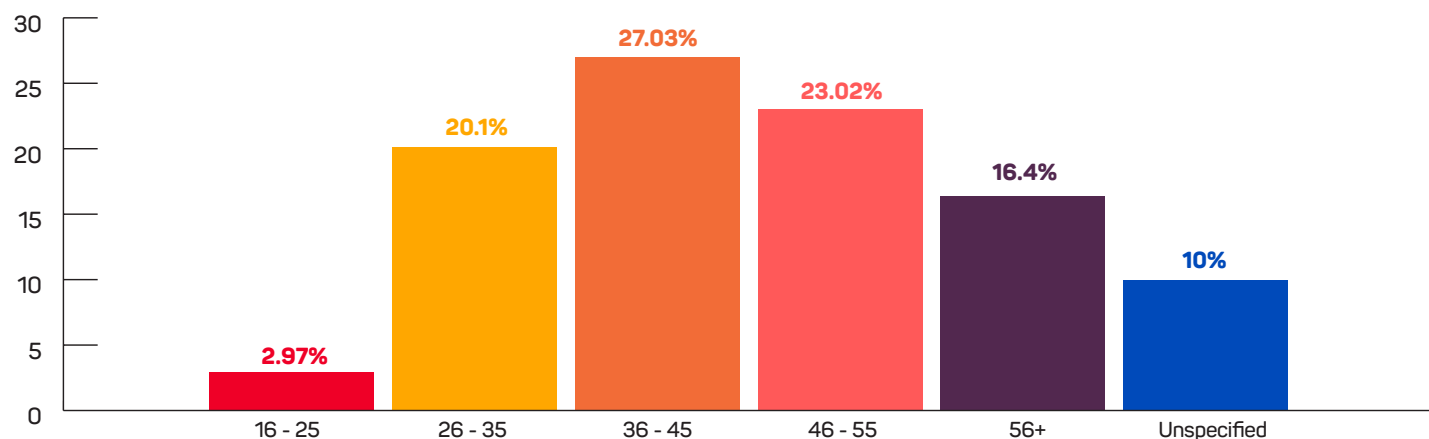
The top 20 countries



In total, **27% of delegates (1,369)** came from the **United States** and **11% from Mexico (580)**. Nearly **5% of delegates (228)** came from **South Africa**, the largest representation outside **North America**. Other countries with strong representation included the **United Kingdom (205)**, **Brazil (164)**, **Argentina (163)**, **France (141)**, **Kenya** and **India (108 respectively)**.

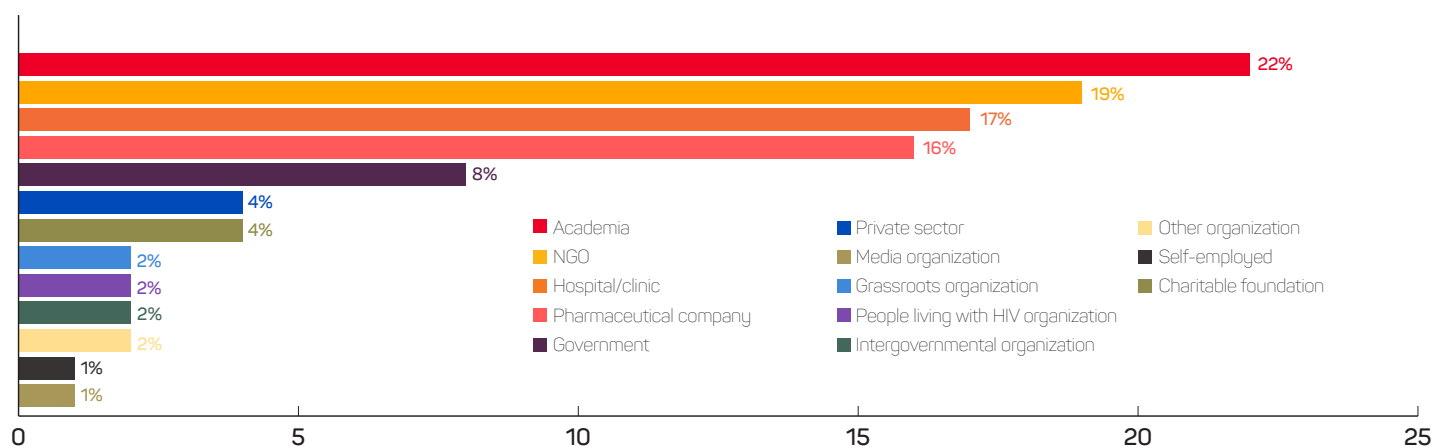
Age group

Half of all delegates at IAS 2019 were younger than 45 years and just over one in five were younger than 35. The proportion of delegates younger than 45 was higher than in 2017 and 2015.



Affiliations and institutions

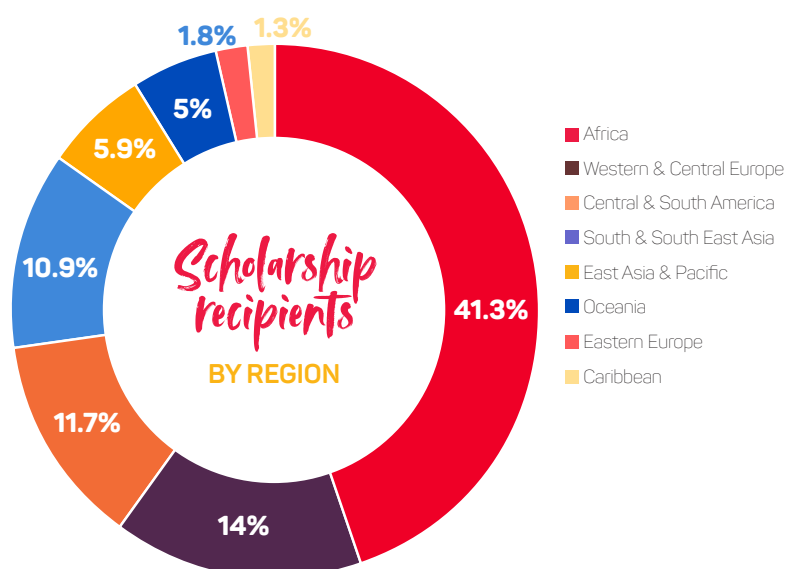
People from academic institutions, followed by people from non-governmental organizations (NGOs), made up the largest proportion of delegates. The proportion of NGO delegates was substantially higher than in 2017, while the proportion of delegates working in hospitals and clinics was similar to 2017.



IAS 2019 scholarships

The International AIDS Society (IAS) awarded 221 scholarships to attend the conference through eight programmes: IAS 2019 International Scholarship Programme, IAS/AVAC media scholarships, IAS Educational Fund scholarships, CIPHER grant and fellowship programmes, IAS Youth Champions, the IAS Differentiated Service Delivery initiative, and the Me and My Healthcare Provider campaign.

Scholarship recipients came from 64 countries across seven regions. The majority of recipients were between 26 and 45 years of age. Around 4% were under 26 years of age and a similar percentage were 56 years and older.



What was shared?

90-90-90 targets

IAS 2019 provided an opportunity to review progress towards the Joint United Nations Programme on HIV and AIDS (UNAIDS) 90-90-90 targets for 2020 that call for 90% of people living with HIV to be diagnosed, 90% of people diagnosed with HIV to be on antiretroviral therapy (ART) and 90% of people on treatment to have fully suppressed viral loads by 2020. In the run up to the conference, **UNAIDS reported that an estimated 23.3 million people living with HIV – 62% of the total – were accessing ART in 2018, but the pace of treatment scale up is slowing** [3]. Although global AIDS-related deaths have fallen by 33% since 2010, the 2020 milestone of less than 500,000 AIDS-related deaths will be hard to achieve without faster progress. UNAIDS estimates that at least 70 countries still face growing HIV epidemics, with low access to ART. In 2018, 21% of people living with HIV did not know their HIV status, 11.7 million people living with HIV did not have access to treatment and only half (53%) were virally suppressed.

Barriers to achieving the 90-90-90 targets were reviewed in two plenary sessions [4,5] and numerous conference sessions, with particular attention paid to strategies to overcome lower rates of HIV diagnosis in men, adolescents and key populations.



Delegates discuss a poster

Treatment

More than half of people living with HIV are women or adolescent girls. Antiretroviral treatment options that meet the needs of women and adolescent girls throughout the lifecycle are an essential element in achieving global goals for treatment uptake and viral suppression. **New findings from Botswana's Tsepamo study showed that the risk of neural tube defects (NTDs) associated with dolutegravir (DTG) exposure around the time of conception was lower than preliminary data had suggested** [6]. NTDs occurred in three per 1,000 deliveries among women on DTG from conception, a small but significant increase compared with all other antiretroviral exposures. Surveillance in Brazil [7] and through the Antiretroviral Pregnancy Registry [8] reported no increased risk of NTDs associated with the use of DTG around the time of conception.

"Antiretroviral safety data don't just affect pregnant women, they affect all women on ART."

– REBECCA ZASH, HARVARD MEDICAL SCHOOL, BOSTON

The World Health Organization (WHO) released updated guidelines at IAS 2019 strongly recommending DTG-based ART as the preferred option for all adults, including pregnant women and women of childbearing potential [9]. **The ADVANCE study [10] showed that two DTG-based regimens demonstrated non-inferior efficacy versus efavirenz-based treatment in a South African population**, but proved more tolerable and less likely to lead to resistance if treatment failed. Updated guidance from WHO, data from Tsepamo and data from the ADVANCE study should encourage rapid implementation of DTG-based ART.

Analysis of ADVANCE and a second study of DTG-based ART carried out in Africa showed that **people taking DTG as part of a first-line regimen gained significantly more weight than people taking efavirenz-based ART, especially when DTG was combined with tenofovir alafenamide/emtricitabine (TAF/FTC)** [11]. In particular, women gained more weight than men. Further surveillance is required to understand the causes, magnitude and implications of weight gain as DTG-based regimens are more widely adopted.

New developments in ART

IAS 2019 also featured further evidence on strategies to simplify antiretroviral therapy. The **GEMINI study** showed that **two-drug first-line treatment with DTG and lamivudine remained virologically non-inferior to three-drug treatment in long-term follow up** [12]. Meanwhile, a phase 2 study [13] showed that another two-drug regimen, the combination of doravirine and islatravir, maintained viral suppression through 48 weeks and has the potential to be a potent two-drug regimen. Results from the phase 3 ATLAS trial showed that another form of simplified treatment, the long-acting injectable regimen of cabotegravir and rilpivirine, proved more acceptable to participants over time compared with three-drug oral treatment [14].



Dr. Fauci speaks at a press conference

Pre-exposure prophylaxis and new prevention tools

Pre-exposure prophylaxis (PrEP) was a major theme at IAS 2019, reflecting the demand for PrEP among key populations and the impact of PrEP as an intervention. Data from PrEP demonstration programmes in Paris, France [15], and New South Wales, Australia [16], showed **very low HIV incidence in large cohorts of men who have sex with men using PrEP**, highlighting the need to scale up PrEP provision in line with WHO guidance.

At IAS 2019, **WHO endorsed event-driven PrEP – also called on-demand PrEP or the 2+1+1 schedule – for men who have sex with men** [17], encouraging **greater flexibility in the delivery and use of PrEP**. Research in Latin America showed that starting PrEP on the same day as rapid HIV testing, STI screening and safety screening was feasible and safe [18], reducing barriers to uptake.

At IAS 2019, studies also reported promising data on the use of topical PrEP, or non-oral drug delivery. The dapivirine vaginal ring, which delivers an antiretroviral drug for a month, showed high adherence and sustained impact on HIV-1 incidence and proved an acceptable long-term prevention option for women in the open-label extension of a large randomized trial [19]. **Early-stage data on the pharmacokinetics of an implant containing the new antiretroviral, islatravir, showed that it could deliver preventive concentrations of the drug for at least one year** [20]. Ongoing studies of long-acting injectable PrEP were also discussed at the conference, with speakers underlining the accelerating research emphasis on identifying long-acting antiretroviral formulations and delivery methods for HIV prevention [21].

“Taken together, the HIV prevention studies presented at IAS 2019 show that we are creating new tools to address the realities of people's lives.”

– ANTON POZNIAK, INTERNATIONAL SCIENTIFIC CO-CHAIR



Delegates enjoying Monday's plenary session

HIV vaccines

Two-year post-vaccination follow-up data from the APPROACH study confirmed the durability of humoral immune responses induced by an Ad26.Mos4.HIV/gp140 env vaccine [22]. A vaccine selected from the seven candidates evaluated in APPROACH is now being tested in 2,600 HIV-negative women in the fully enrolled Imbokodo study in southern Africa [23]. Results from the ASCENT study [24] demonstrated that adjustments to the design of the vaccine being tested in Imbokodo, optimized to cover multiple global strains of HIV, produced robust antibody and HIV-specific CD4 responses regardless of whether the HIV gp140 envelope component used clade C HIV proteins or bivalent proteins. The vaccine tested in ASCENT, the Ad26.Mos4.HIV/bivalent gp140 env combination, has gone forward to a phase 3 efficacy study, MOSAICO / HVTN 706, recruiting men who have sex with men and transgender people in the Americas and Europe [25].

HIV cure

Studies presented at IAS 2019 demonstrated the breadth of cell types that make up the reservoir of HIV-infected cells, including new research on macrophages [26], adipose tissue [27] and naïve CD4+ T-cells [28]. **Delegates discussed the need for new strategies for reservoir reduction that recognize the variety of cell types known to harbour HIV.** Whereas HDAC inhibitors and other T-cell receptor activators might be suitable candidates for activating latent HIV in T-lymphocytes, other agents would be needed to activate HIV in macrophages [29]. Gender differences in HIV latency [30] were also reported at the conference, highlighting the need to consider gender in all aspects of HIV cure research.

IAS 2019 reported progress in the development of immunological interventions that might promote remission – withdrawal of antiretroviral treatment and control of HIV by immunological mechanisms. **Findings of the RIVER study showed that treatment initiation during primary HIV infection reduced HIV-specific CD4+ T-cell activity, but this activity was recovered to pre-therapy levels by a “prime-boost” therapeutic vaccination [31].** The TLR7 agonist, vesatolimod, is being investigated as a potential activator of HIV-infected cells and adjunct for therapeutic vaccination strategies designed to promote HIV remission. An early-phase study reported that vesatolimod was safe and pharmacodynamically active in HIV-positive individuals [32]. Vesatolimod induced natural killer cell and CD4 and CD8 lymphocyte activation at higher doses.

Key populations

With 54% of HIV infections in 2018 occurring in key populations [33], men who have sex with men, transgender people, sex workers and people who inject drugs were a major focus of the programme at IAS 2019. The HIV epidemic among young men who have sex with men in Latin America was addressed in a plenary [34], and the conference also reviewed strategies designed to overcome the low uptake of HIV testing and PrEP among young men who have sex with men [35].

The prevention and treatment needs of transgender people, including the implementation of PrEP services, featured prominently at the conference. **Gender-affirmative care is essential for HIV testing and PrEP access** [36], the conference heard. US [37] and Brazilian [38] research reported a high need for PrEP but low uptake among transgender women due to stigma and structural barriers, including unstable housing and poverty.

Qualitative research from Malawi reported high levels of discrimination and stigmatization against transgender people in healthcare settings [39]. **As well as addressing attitudes and practices among healthcare workers, gender-affirmative care can effectively integrate hormone treatment, gender transition counselling and HIV testing for sexual partners with HIV and sexual healthcare, Thai researchers reported while describing the example of the Tangerine Clinic** [40]. The Thai Red Cross AIDS Research Centre has established the Tangerine Academy as a regional technical assistance platform for the development of tools, training curricula and resources to support the roll out of HIV and health service models for transgender people.

Vulnerable populations

IAS 2019 saw a renewed focus on HIV prevention in adolescent girls and young women. New evidence presented offered further analysis from the highly publicized Evidence for Contraceptive Options and HIV Outcomes (ECHO) trial, a randomized, open-label clinical trial conducted in four African countries. It compared HIV risk among women on the three most commonly used methods of hormonal contraception: the DMPA-IM shot, a copper intrauterine device (IUD) and a levonorgestrel (LNG) implant. **The ECHO study reported very high HIV incidence [41,42] among young women despite a comprehensive prevention package.** More prevention options for adolescent girls and young women are on the horizon, including the dapivirine ring [43], injectable long-acting PrEP and oral PrEP. However, investment in community-led research on product introduction, demonstration projects, regulatory approval and integration into existing services is required to realize their potential.

UNAIDS reported that in 2018, men were less likely than women to know their HIV status, be on treatment or have suppressed viral load [44]. Population surveys in eight African countries showed that young men aged 15–34 years and young women aged 15–24 years were least likely to be virally suppressed [45]. **Analysis of the PopART HIV prevention trial showed that two-thirds of HIV transmissions were linked to men not on HIV treatment** [46], indicating the extent to which stopping HIV transmission depends on engaging men in testing and treatment.

Multi-level strategies for prevention: financial incentives and economic and structural interventions

Previous IAS conferences have heard mixed evidence on the impact of interventions to promote school attendance on HIV incidence in young people in sub-Saharan Africa. At IAS 2019, a large study conducted in Eswatini demonstrated that **providing financial incentives to adolescent girls and young women to remain in school or college or take up employment training was associated with a significant reduction in HIV incidence** [47]. Research from South Africa [48] confirmed that consistent access to school meals, parental and caregiver support, violence prevention and school subsidies greatly reduced the onset of sexual risk behaviours in adolescents, emphasizing the importance of multi-level structural interventions for HIV prevention.

Co-infections and co-morbidities

Defining the optimal antiretroviral regimen for use in TB/HIV co-infection in settings with a high burden of TB remains challenging. IAS 2019 heard results of the REFLATE study [49], an ANRS-sponsored randomized comparison of efavirenz-based ART with raltegravir-based ART as first-line antiretroviral treatment for people with HIV also receiving TB treatment. The study found that the 400mg twice-daily raltegravir-based regimen was inferior to 800mg efavirenz. Updated WHO guidelines issued at IAS 2019 recommend TDF/3TC/DTG for people with HIV receiving TB treatment, with 50mg DTG dosed twice daily if used with rifampicin [50].

Sexually transmitted infections (STIs) were a central theme at IAS 2019, and speakers agreed that with STI levels rising among key populations, the need to develop new testing and care models is urgent [51]. **Enhanced testing for STIs in PrEP programmes has revealed the scale of the STI epidemic and unmet needs for diagnosis and treatment** [52]. Several studies presented at IAS 2019 reported that PrEP use is not associated with an increased prevalence of STIs, but PrEP provision does represent an opportunity to engage people vulnerable to acquiring STIs in care. Research from Germany showed a high baseline prevalence of bacterial STIs among men who have sex with men recruited to a longitudinal cohort, with no significant difference in prevalence between men already using PrEP at baseline and non-PrEP users [53]. US research among young men who have sex with men reported no increase in STIs after PrEP initiation [54].

“People on PrEP are more likely to be screened for STIs, and this may be an opportunity to drive down the STI burden in the community and have an impact” – Kenneth Mayer, Fenway Health, Boston

Integration with other disease areas

Findings from the above-mentioned ECHO study presented at IAS 2019 attracted widespread attention. **A high incidence of STIs throughout follow up [55] and very high HIV incidence [56] among participants highlighted the need for integration of services and increased focus on the quality of SRHR services.**

“The ECHO results are not ‘good news’. The women in this trial were recruited and enrolled because they wanted contraception and were sexually active.”

– JACQUELINE WAMBUI, AFROGAB, NAIROBI, KENYA

The study findings also underlined the importance of continued and increased access to a range of contraceptive methods, as well as expanded contraceptive choices for women at high risk of HIV acquisition [57]. ECHO investigators reported on the integration of PrEP delivery [58]. South African research showed that adolescent girls and young women already using contraception were more likely to initiate PrEP on the day it was offered and if PrEP and contraception were offered together, they were more likely to initiate both [59].

Syndemics

The emerging study of syndemics encourages an understanding of interacting diseases and the social and environmental conditions that promote the negative effects of the diseases [60]. IAS 2019 held a plenary session [61] and a symposium on the impact of syndemics on engagement in prevention and care [62]. **Reaching people affected by syndemics may be challenging – the 10-10-10 left behind [63] – with specialized interventions required to support engagement.**

Research from Latin America drew attention to high levels of drug use in sexual contexts, STIs and condomless sex in men who have sex with men [64], as well as untreated depression [65]. Similar syndemics were identified in transgender women in Brazil [66]. Reaching young men who have sex with men – especially minority men and other marginalized groups – requires addressing syndemics of mental health and substance use, as well as structural issues of racism, poverty, homelessness and lack of cultural competence among healthcare providers [67], presentations showed.

Diagnostics and digital engagement

Improving the uptake of HIV testing among key and vulnerable populations is key to achieving global targets for HIV diagnosis. Self-testing has emerged as an acceptable means of expanding testing options, especially among men. **Self-testing has the potential to close the testing gap between men and women, research in South Africa found** [68]. Peer distribution of self-testing kits improved uptake of testing among key populations in Burundi [69] and Viet Nam [90], but research in Malawi found pressure on female sex workers from peer educators to test and share results. Strategies to widen access to testing should take into account preferences for assisted and unassisted use of self-testing kits and the autonomy of test users, especially where peer educators provide the access point for testing, the conference heard.

Economics, financing and sustainability

IAS 2019 took place in the light of sobering news from UNAIDS: donor and domestic investment in HIV programming fell by US\$900 million in 2018 [71]. UNAIDS identified a funding gap of US\$7.2 billion per year in 2018 that must be filled to achieve Fast-Track Targets. If the funding gap is filled and HIV coverage targets are met, then 90% reduction targets could be met by 2030. But reductions in funding will lead to more HIV infections and AIDS-related deaths. Better allocation of existing donor and national funds could avert 7.4 million more HIV infections between 2015 and 2030 [72].

The conference heard more calls for more efficient use of resources for prevention and treatment. South Africa's national treatment programme reported on the success of antiretroviral tendering in South Africa [73], **where successive rounds of tendering since 2011 have reduced the cost of a first-line regimen by 68%. This has allowed South Africa to quadruple the number of people receiving first-line ART with minimal impact on the overall drug procurement budget.**

Analysis of development transactions from 2000 to 2015 showed that development assistance crowded in domestic private health expenditure, mildly crowded in domestic public health spending and reduced out-of-pocket health expenditures [74]. Development assistance was associated with reductions in HIV incidence and prevalence and in TB incidence.

Stigma and other structural barriers

The impact of stigma, discrimination and structural barriers within the HIV response was widely discussed at IAS 2019. **Analysis of the legal context of sex work in 10 countries in sub-Saharan Africa showed that sex workers in countries that criminalized sex work in national legislation had a sevenfold higher risk of being HIV positive than in settings where sex work was partially legalized** [75]. Stigma can also affect the uptake of services such as PrEP. Qualitative research from Kenya [76] reported an association of antiretroviral drugs with HIV and stigmatization of users by providers and the community. **Stigma was described as a major barrier to both uptake and continuation by potential PrEP users.**

The conference heard calls for implementation science research to evaluate and guide the scale up of stigma reduction interventions [77]. A stigma reduction intervention improved uptake of HIV testing and engagement in care among men in Mozambique. The intervention used community dialogue and radio to deliver stigma reduction messages, and exposure to more elements of the campaign improved the likelihood of testing [78].



An activist at the Getting to the Heart of Stigma session

How was it covered?

Media and digital coverage of IAS 2019 substantially extended the reach of the conference in comparison with previous years, with new techniques employed to disseminate messages from the conference and engage audiences in dialogue.

As of 31 July (one week after the official closing of the conference), IAS 2019 had generated **341 original media stories and more than 443 million media impressions**, including coverage from leading US, UK and other international news outlets, as well as significant attention by local Mexican media. Top-tier media across the globe covering the conference included *Agence France Presse*, *Agencia EFE*, *Financial Times*, *The New York Times*, *RFI*, *The Telegraph* and *The Washington Post*, as well as the health and development-focused digital natives, *STAT* and *Devex*. Widely read medical and scientific media, such as *MedPage Today*, *Medscape*, *Contagion Live* and *Science*, also comprehensively covered the science presented at the conference, as did the HIV trade media, *AIDSmap.com*, *TheBody.com* and *POZ*.

IAS 2019 digital channels continued to expand the reach of the conference. In particular, Twitter, YouTube and Instagram saw impressive growth in both the number of people viewing the content and the amount of engagement. Other digital activities included the official conference broadcast channel, IAS 2019 Access, a virtual direct connection to the science, research and experts at the conference. The new format of pre-recorded programming featured in-depth perspectives from diverse speakers discussing the latest in HIV science and other hot topics coming out of Mexico City. IAS 2019 Access was further amplified through bilingual and Spanish-language content produced by media partners Hornet and Fundación Huésped.

IAS 2019 social media posts generated **410,903 impressions** throughout the conference, an **18% increase** over IAS 2017.

51,314 minutes of IAS 2019 YouTube videos were watched throughout the conference, a **355% increase** on IAS 2017 YouTube video access.

17,882 people were reached through International AIDS Society Instagram posts and stories, generating **21,485 impressions** and **1,189 engagements**, a **21% increase** on IAS 2017.

15.4 million people were reached through **6,642 social media and blog posts** related to the conference.

"SOMEDAY, AN ARM IMPLANT MAY PREVENT HIV FOR A YEAR" – *New York Times*

"GROUNDBREAKING HIV DRUG SAFE TO USE IN WOMEN OF REPRODUCTIVE AGE" – *The Telegraph*

"AS AIDS CONFERENCE OPENS IN MEXICO, MIGRANTS ARE A FOCUS" – *France 24*

"TRIAL OF HIV PREVENTION IMPLANT HAILED AS BOOST IN FIGHT AGAINST DISEASE" – *The Guardian*

"HIV / AIDS: NEW WAYS TO MAKE LIFE EASIER FOR PATIENTS AND PREVENTION" – *Agence France Presse*



Linda-Gail Bekker and Florentino Badial Hernández interviewed at IAS 2019 Access

How did it go?

Key informant interviews

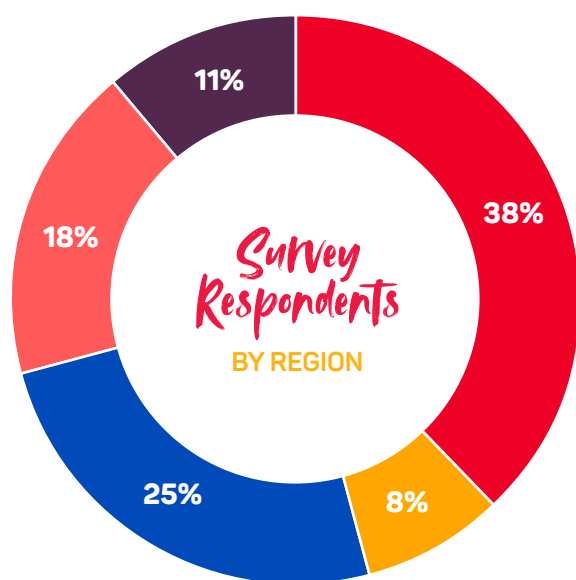
Twelve stakeholders (including the conference co-chairs, track leads, sponsors, partners, community members and NGOs) provided in-depth feedback on the scientific content of the conference, organization, expected impact and recommendations for maximizing impact.

Focus group

A focus group of eight early-career researchers provided feedback on conference organization, promoting wider participation and scientific content.

Online delegate survey

Of the 5,954 total participants, 1,163 (19.5%) responded to a 41-question online survey on 16 topics. The data and quotations presented here are all drawn from the survey and key informant interviews. The quotations used have been minimally edited, for clarity and brevity where needed.

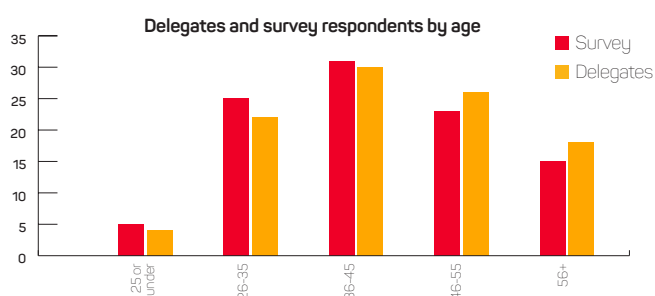


■ Latin America & Caribbean
■ Asia & The Pacific Islands
■ Africa
■ USA & Canada
■ Europe

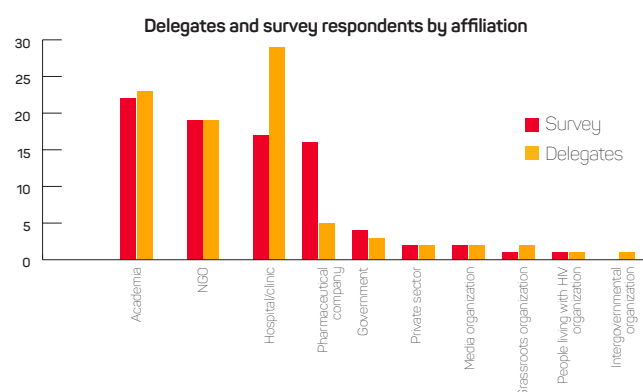
Survey respondents were broadly representative of all delegates with respect to region, age, gender and organizational affiliation:

- Responses were received from 99 of the 133 countries represented at the conference. Respondents were mostly from Mexico, the US, Brazil, Argentina and South Africa.
- Of survey respondents who shared their gender, 49% identified as male (including nine trans men) and 49% identified as female (including 12 trans women); 1% identified as gender queer/non-binary and 1% declined to answer the question.
- Very few young people (under 26 years) (5%) completed the delegate survey (most were between 26 and 55 years of age, with the highest percentage, 31%, in the 36-45-year age range).
- The majority of respondents work in hospitals/clinics (29%), academia (23%) or NGOs (19%). Few were from people living with HIV groups/networks, grassroots community-based organizations (2%) or faith-based foundations (1%).

Just over half of the respondents (53%) have been working in the field for more than 10 years; 21% for 6-10 years, and 18% for 2-5 years. Only 6% were newcomers (0-2 years in the field).



More than half of the survey respondents (58%) said this was the first time they had participated in an IAS Conference on HIV Science.



What did people get out of it?



The findings of the conference are reviewed at the Rapporteur Session

New knowledge of HIV treatment, prevention and cure research

Survey respondents and key informants valued the wealth of research on HIV prevention and treatment presented at IAS 2019.

Most survey respondents (94%) identified PrEP and other prevention tools as the key area where they had gained new knowledge. This was closely followed by HIV treatment (90%), global targets such as 90-90-90 (88%), and HIV cure research (83%).

Among the new and important advances highlighted by survey respondents and key informants were those revealed in presentations on DTG and pregnancy, dual HIV therapy and long-acting antiretrovirals.

Several key informants noted that the conference committee's policy of actively soliciting abstract submissions from investigators of ongoing studies had ensured a very strong scientific programme. Qualitative survey responses from delegates endorsed the view expressed by all key informants that IAS 2019 had presented high-quality science across all tracks.

"The dolutegravir neural tube defects data will really push countries and clinicians to get on with making the drug available, and to start listening to what women want." – KEY INFORMANT

New insights into implementing the best care

In addition to clinical science, delegates valued the social, behavioural and implementation science presented at IAS 2019.

Survey respondents and key informants highlighted the importance of integrating services, such as contraception and HIV, as a key take-home message from the conference, and 77% of survey respondents said differentiated service delivery was a key area in which they had gained new information and insight at IAS 2019.

"For prevention, it was very important to talk about the delivery of PrEP within family planning services. What we are seeing is greater attention to the integration of HIV and SRH, which we haven't heard much about for at least 10 years." – KEY INFORMANT

It was clear from respondents' messages that they were considering the impact of implementation science both at a policy and programmatic level and at an individual level, prompting ideas of what they could do differently in their own practice.

"I will try to implement the knowledge gained in our national HIV programme, especially related to differentiated service delivery care." – SURVEY RESPONDENT

"Clinical care must be a one-stop shop: a full package of care, including a range of contraceptive options. I was especially inspired by the engagement tour to Condesa Clinic and hope to integrate some of the innovative ideas used there into my own practice." – SURVEY RESPONDENT



IAS Youth Ambassadors speak with IAS President, Anton Pozniak

Better understanding of key populations' needs

Many survey respondents identified key and vulnerable populations (84%) as an area in which they had gained new information and insight at IAS 2019.

Respondents praised IAS 2019 for enabling access and inclusion for key populations, but also called for more efforts to ensure that people from key populations are prioritized in research and clinical practice and are represented at all levels of future conferences.

Several key informants highlighted the importance of the conference in reiterating consistent evidence-based messages regarding the need for combination prevention for key populations and community-based responses.

Stigma and discrimination were highlighted as key challenges in addressing the HIV epidemic and a barrier to reaching key populations.

"The meeting has been a catalyst for integration of transgender people into prevention services"

– KEY INFORMANT

"The presence of civil society in a scientific conference helps a lot in pushing for targeted responses, especially in Latin American settings where investments do not match the dynamics of the epidemic"

– KEY INFORMANT

"Focus on key populations and stigma reduction is essential to achieving universal treatment, as inequality and vulnerability are increasingly the strongest determinants of not achieving virologic suppression."

– SURVEY RESPONDENT

Greater involvement of young researchers

Key informants emphasized the high proportion of research presented at IAS 2019 by young researchers and the fact that gender balance was achieved. Almost 40% of presenting authors at IAS 2019 were aged 26–35 years and 52% of presenting authors were women.

Key informants and a focus group conducted with early-career researchers with accepted abstracts gave a strong message: the conference scholarship programme is vital for sustaining the quality of science presented at the meeting, replenishing the pool of dedicated HIV researchers and expanding the geographical range of participants in the conference.

Survey respondents recognized the value of the scholarship programme and many commented on the impact that a conference scholarship would have on their future research and participation in the HIV response.

"This conference has changed my life in a very profound way ... I could clearly see that every scientist and researcher that presented work in this conference, was demonstrating their contribution towards ending HIV ... It is these individuals' contributions that would ultimately end the HIV epidemic. The message I am taking home is that everyone must contribute something towards ending HIV." – SURVEY RESPONDENT

New connections and stronger networks

IAS 2019 was about more than the scientific programme. Many delegates valued the opportunity to meet other people working in their field or in related fields, and 89% of survey respondents said that they successfully networked and enhanced their professional circles by attending IAS 2019. Key informants agreed that opportunities for informal engagement and smaller meetings outside the conference sessions were valuable features of the conference, especially the insights that arose when the conference brought together people working on common challenges.

"The conference is useful in terms of setting benchmarks for best practice within the company, and for being able to show that the challenges that we face as a company are common across the health sector and that others are working to solve them too. We learn from others how to resolve them." – KEY INFORMANT

"Besides learning new concepts and new ways of working with older ones, networking and teamwork with other sites is what is going to help end the epidemic. I learned a lot from other countries' experiences on how to take on different challenges in mine." – SURVEY RESPONDENT

Inspiration and motivation

Survey respondents highlighted how inspiring it was to meet and learn from each other and to hear about work happening elsewhere. Many said that they were returning home with renewed enthusiasm for the work that has to be done. They also felt that the conference provided an opportunity to pause and review progress towards meeting targets and major challenges.

"What the conference does well is reflect on the state of the epidemic. We saw some very thoughtful presentations on what is needed to get to 90-90-90 and how to get delivery at scale, not just for treatment but for prevention and lessons learned and the systems needed for delivery at scale." – KEY INFORMANT

"We have the tools to end the epidemic: U=U, PrEP, PEP. Our goal now is to put the tools to work."

– SURVEY RESPONDENT

"The conference provided a platform for people of all walks of life to interact and share knowledge and skills."

– SURVEY RESPONDENT



IAS Scholarship recipients



Will it make a difference?

Impact on participants' work

Delegates, including clinicians, academics and advocates, from many different backgrounds felt that the conference would inform and change the way they think about or implement their work.

It is too early to say what impact IAS 2019 will have, but survey respondents who had attended IAS 2017 two years ago mentioned that they had: shared new information with their colleagues (97%); motivated colleagues, peers or partners (91%); strengthened existing collaborations (85%); built capacity within their organizations (83%); and refined/improved their existing work, research practice or methodology (81%).

Impact on policy and programming

Survey respondents identified immediate implications of data presented at IAS 2019 for policy and programming and offered examples without prompting in their qualitative responses to the survey. Survey respondents and key informants agreed that the new research presented at IAS 2019 on DTG use in pregnancy was a key take-home message. They anticipated an immediate impact on treatment programmes around the world.

Other research presented at the conference is also likely to change policy and programming. Survey respondents were able to clearly identify how evidence presented at the conference would be applied in their own work and how they would set about influencing policy as a result of what they had heard at IAS 2019:

"Great updates of multiple aspects of programming and service delivery for PrEP – definitely of direct use for global programs I support." – SURVEY RESPONDENT

"I now can plan a programme in my area for my key population patients ... I feel confident in managing their care." – SURVEY RESPONDENT

"I recognize that my country, Mexico, is still far away in strategies such as PrEP and self-testing. I will make my efforts to push this from my workplace." – SURVEY RESPONDENT

"At IAS 2017, I was able to establish new collaborations that came with funding opportunities for research."

– SURVEY RESPONDENT

"I was able to share the knowledge and information that I obtained from IAS 2017, which I can gladly say has improved the clinical outcomes of patients in our ART clinic." – SURVEY RESPONDENT

Asked to think about the potential impact of IAS 2019, survey respondents were also able to point to policy and programming changes that they had initiated as a result of attending the previous IAS Conference on HIV Science in Paris in 2017:

"After participation in IAS 2017, the first line of therapy in my country was changed and included integrase inhibitors." – SURVEY RESPONDENT

"I learned about PrEP implementation across many countries [at IAS 2017], and now I'm implementing PrEP in my home country." – SURVEY RESPONDENT

"[After IAS 2017] we developed our first National Protocol for Prevention of Mother to Child Transmission of HIV and, also, a PrEP Protocol." – SURVEY RESPONDENT

Conclusions

Did we achieve our objectives?

More than 90% of survey respondents agreed that IAS 2019 was successful in achieving its stated objectives.

Objective 1 – Accelerate basic science to promote discovery and shape the advancement and application of innovative technologies across the HIV prevention, care and treatment cascade and remission and cure research

In all, 98% of survey respondents agreed that the conference achieved this objective. Survey respondents and key informants identified research on innovative technologies, such as long-acting prevention methods, as a prominent feature of IAS 2019. They frequently remarked that the conference highlighted important shifts in the ways that HIV prevention and treatment can be delivered in the future.

Many survey respondents expressed optimism about the potential of new developments in HIV science that they had learned about at IAS 2019.

"New, longer-acting, more convenient deliveries and drugs for PrEP and HIV treatment are emerging and this is quite exciting!" – SURVEY RESPONDENT

Objective 2 – Advance core components of implementation science research that address the scale up and challenges of the current epidemic

Most (96%) of survey respondents agreed or strongly agreed that this objective had also been met. Many respondents noted that the conference had provided an opportunity to learn about successful models of prevention or care that could be implemented in their own settings. Respondents frequently cited evidence regarding linkage and co-location of services as valuable, and key informants pointed to evidence on the use of DTG and integration of SRHR and HIV services as critical for scale up of treatment and prevention services.

"SRH and HIV integration is finally on the agenda, and we should start to think in more nuanced ways about providing prevention and treatment choice." – SURVEY RESPONDENT

Objective 3 – Fast track consolidated responses on HIV co-infections (notably TB and viral hepatitis) and on emerging co-morbidities and other non-communicable diseases

A total of 97% of survey respondents agreed or strongly agreed that this objective had been met and that they had acquired new knowledge on integration of HIV services with other public health areas. New knowledge and awareness of the need to integrate HIV and sexual and reproductive health services featured prominently in responses from delegates and key informants.

Some respondents and key informants considered that tuberculosis and viral hepatitis had low profiles in the abstract-driven and invited-speaker sessions at IAS 2019, and key informants suggested outreach to encourage abstract submissions and greater integration of TB into the main programme at future conferences.

Delegates identified ageing with HIV and mental health issues in people living with HIV as the co-morbidity issues they would like to learn more about at future conferences. Key informants suggested that future conferences address ways in which a consolidated approach to co-morbidities and non-communicable diseases can contribute to the development of universal health coverage.

"How do we position contributions from the HIV research community in the development of universal health coverage? How can we use the capacity of the research community to make HIV one of the major contributors to the build-up of universal health coverage?" – KEY INFORMANT

Objective 4 – Strengthen HIV prevention research (biomedical, behavioural and structural prevention), including treatment and vaccines

In all, 98% of survey respondents agreed or strongly agreed that this objective had been met. Prevention science was identified as an especially strong feature of IAS 2019 in qualitative survey responses, with frequent reference to the range of new prevention products becoming visible on the horizon.

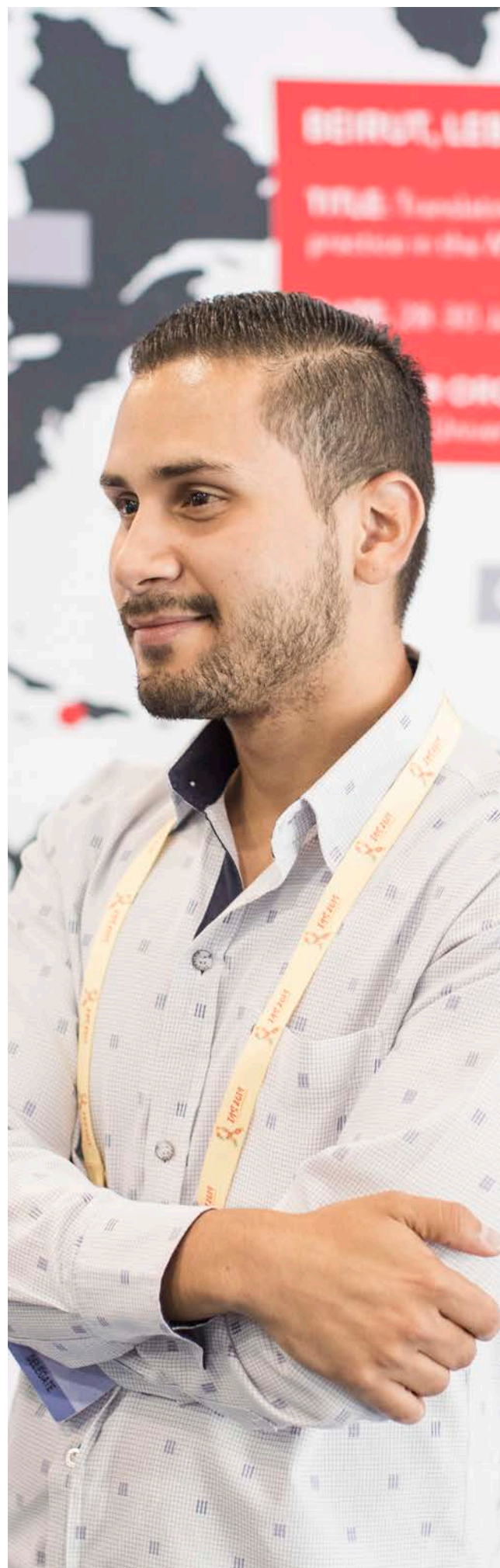
Key informants stressed the importance of improving dialogue in future conferences between researchers, health policy makers and funders on the necessary conditions for successful introduction of new prevention products.

Objective 5 – Address HIV vulnerability and determinants of disease progression, notably among key and marginalized populations, including stigma and discrimination

A total of 97% of survey respondents agreed or strongly agreed that this objective had been met. Survey respondents welcomed the focus on key populations and the opportunity to learn about successful programming interventions that could be adapted for their own settings. Respondents appreciated greater attention to stigma and discrimination in IAS 2019 programming.

“As a physician, IAS 2019 strongly helped me to gather knowledge towards reaching vulnerable people at high risk of HIV Infection and promoting strategies of prevention, broad testing and better access to clinical care.” – SURVEY RESPONDENT

“Stigma and discrimination are the biggest hurdles for the 90-90-90 targets. Fighting this has to be a priority at national guideline level, as well as a mindset change in medical caregivers.” – SURVEY RESPONDENT



IAS 2019 delegate



IAS 2019 Co-Chair, Brenda Crabtree-Ramirez and IAS 2021 Co-Chair, Hendrik Streeck speak at the Closing Ceremony

How can we do better next time?

Key informants and survey respondents proposed five areas on which they would like the IAS to focus when planning future IAS Conferences on HIV Science:

Keep working on inclusion and access. Survey respondents recognized that the IAS has worked hard to ensure that different communities are represented as presenters and delegates, but urged the secretariat to continue striving to do better. Suggestions included expanding the scholarship programme, including more key population representatives and ensuring that the widest possible spectrum of health professions are invited to speak and present their work. Key informants and focus group participants emphasized the importance of sustaining and expanding the scholarship programme to enhance geographical diversity and encourage a new generation of HIV researchers.

Provide more space to discuss how to introduce innovations into health systems. Key informants identified effective implementation of an expanding range of prevention options as a major challenge that should be anticipated and addressed by health systems. Key informants agreed that the following will become critical topics and deserve more space in future meetings: how to introduce new options; how to learn from non-HIV programmes, such as contraception and immunization; and how to integrate new options into existing health services.

Introduce more interactive sessions. Survey respondents suggested that more sessions should have an interactive format to encourage discussion and debate. Formats suggested included workshops, debates, open discussion groups, clinical case discussions and skills development sessions.

Promote the posters. Survey respondents felt that there should have been more dedicated time for delegates to explore the poster exhibition and interact with the researchers whose work was on display there. There were also suggestions to improve the layout and promotion of the poster exhibition. Key informants also stressed the importance of the poster exhibition as an opportunity for young researchers to develop their scientific networks.

Increase networking opportunities. Many delegates value the opportunities for networking provided by the conference. Survey respondents suggested that future conferences should facilitate networking, through hosting networking sessions and providing dedicated time and space within the venue to meet each other and make and strengthen connections.

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About the International AIDS Society

The IAS 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.



About the IAS Conference on HIV Science

The IAS Conference on HIV Science is the world's most influential meeting on HIV research and its applications. This biennial conference presents the critical advances in basic, clinical and operational HIV research that move science into policy and practice. Through its open and inclusive programme, the meeting sets the gold standard of HIV science, featuring highly diverse and cutting-edge research.



