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ACRONYMS AND ABBREVIATIONS

AIDS 2016 21st International AIDS Conference
AMP Antibody Mediated Prevention (study)
ART Antiretroviral therapy
CAPRISA Centre for the AIDS Programme of Research in South Africa
CBOs Community-based organizations
EFV Efavirenz
FDC Fixed-dose combination
GBV Gender-based violence
IAS International AIDS Society
KPs Key populations
LRA Latency reversing agent
LGBTI Lesbian, gay, bisexual, transgender and intersex
MIC Middle-income country
MSM Men who have sex with men
NGO Non-governmental organization
NNRTI Non-nucleoside reverse transcriptase inhibitor
OST Opioid substitution therapy
PEPFAR United States President’s Emergency Plan for AIDS Relief
PEP Post-exposure prophylaxis
PI Protease inhibitor
PLHIV People living with HIV
PMTCT Prevention of mother-to-child transmission
POC Point of care
PrEP Pre-exposure prophylaxis
PROMISE Promoting Maternal-Infant Survival Everywhere study
PWID People who inject drugs
Q&A Question and answer
SRHR Sexual and reproductive health rights
START The Strategic Timing of AntiRetroviral Treatment Trial
STIs Sexually transmitted infections
TB Tuberculosis
Trans May refer to transgender, transsexual or any other non-binary identification of sex or gender
TRIPs Trade-related intellectual property rights
UNAIDS Joint United Nations Programme on HIV and AIDS
VHM Vorinostat, hydroxychloroquine and maraviroc
VMMC Voluntary medical male circumcision
WHO World Health Organization
YPLHIV Young people living with HIV

Terminology
Key populations refer to men who have sex with men, people who inject drugs, sex workers, and transgender people.

Priority populations refer to people living with HIV, and groups outside of key populations who may be at increased risk of acquiring HIV, e.g. adolescents, indigenous people, migrants, people with disabilities, prisoners, people of advanced age, women and girls.
INTRODUCTION

The theme of the 21st International AIDS Conference (AIDS 2016), held in Durban, South Africa, on 18-22 July 2016, was Access Equity Rights Now. It gathered more than 13,000 of the world’s foremost experts, activists and implementers from 155 countries. AIDS 2016 marked not only the passing of three decades since the first International AIDS Conference (held in Atlanta, United States, in 1985), but also a return to South Africa, specifically to Durban.

In 2000, the 13th International AIDS Conference, with the theme, Breaking the Silence, brought 12,000 participants to Durban. This was the first International AIDS Conference held in a resource-limited country; the spotlight was on sub-Saharan Africa as home to 24.5 million people living with HIV and with negligible access to antiretroviral therapy (ART). The leadership of South Africa showed a lack of political will to address the epidemic, with then-President Thabo Mbeki even questioning whether HIV was the cause of AIDS.

This dire state of affairs led to 5,000 scientists from around the world publishing the Durban Declaration, a statement confirming the overwhelming scientific evidence about the aetiology of AIDS, and encouraging increased accessibility to ART alongside scale up of evidence-informed prevention. Former South African President Nelson Mandela closed the conference underlining the need for urgent collective action, both local and international, to bring evidence-informed prevention and treatment to Africa on a massive scale.

Sixteen years later, the HIV response – both in South Africa and globally – is remarkably transformed. In 2001, the United Nations General Assembly’s Declaration of Commitment on HIV/AIDS was released, followed by the establishment of the US President’s Emergency Plan for AIDS Relief (PEPFAR) later that year and the founding of the Global Fund to Fight AIDS, Tuberculosis and Malaria in 2003.

AIDS 2016 is aimed at reinvigorating the response to HIV and AIDS by:

• Bringing together the world’s experts to advance knowledge about HIV, present new research findings, and promote and enhance scientific and community collaborations around the world

• Promoting HIV responses that are supported by and tailored to the needs of at-risk populations or people living with HIV, including women and girls, men who have sex with men, transgender people, sex workers, young people, and people who inject drugs

• Promoting activism and community mobilization that holds leaders, industry and governments accountable and increases their commitment to an evidence-based, human-rights-affirming HIV and AIDS response

• Advancing a clear agenda for HIV in a post-2015 framework, including the cross-cutting issues of criminalization, gender-based violence, sexual and reproductive health rights, and stigma and discrimination that keep people living with HIV at the centre of the HIV response

• Building innovative partnerships with businesses, community, government and science to strengthen HIV prevention and treatment efforts.

With these global mechanisms at work, UNAIDS estimates that 17 million people now receive ART worldwide and that 77% of pregnant women have access to ART for prevention of vertical transmission. While South Africa is still home to the world’s largest HIV epidemic, it is also home to the world’s largest ART programme, and has broad social mobilization and activism, including key population communities, supporting its national HIV response. The impact of the 13th International AIDS Conference is still felt today.

But the work is not done yet. As Chris Beyrer, AIDS 2016 International Chair and 2016 International AIDS Society President, noted in his opening remarks, the conference was not just about the work accomplished so far, but also about the “urgency of the undone work – because we are still counting annual AIDS deaths in the millions – because less than half of our precious brothers and sisters living with HIV are being treated – and because new infections are holding steady in most places, and expanding in others”.

AIDS 2016 marked the first time that the diverse global HIV community had met to reflect on issues raised at the June 2016 United Nations High-Level Meeting on Ending AIDS. The Joint United Nations Programme on HIV and AIDS (UNAIDS)
has set ambitious targets: by 2020, 90% of all people living with HIV must know their status, 90% of those knowing their status must receive ART, and 90% of those on ART must achieve viral suppression. To meet these 90-90-90 targets, the global response will have to both scale up the tremendous biomedical advances of recent years and address long-standing structural barriers that act as a barrier for communities most vulnerable to and affected by HIV. These structural barriers are addressed in the Second Durban Declaration, a call to action spearheaded by the International AIDS Society.

AIDS 2016 was the place for the leaders of the global HIV response to forge critical plans and hear the voices of those most impacted: people living with HIV and those at risk of acquiring HIV. The conference linked science with policy and activism, encouraging partnerships to produce the mix of efforts needed to achieve success. With the largest scholarship programme in conference history, AIDS 2016 brought together a record 940 scholars from 105 countries to contribute their expertise and learn alongside the world’s top experts.

Following the daily plenary, the conference programme featured abstract-driven symposia and workshop sessions, along with commercial and non-commercial satellite sessions (the full conference programme is available here).

In the basic and translational science sessions of Track A, the world’s foremost scientists gave updates on the latest biomedical progress, from promising vaccine trials to new understandings of latent HIV reservoir development in perinatally infected children. Track B’s clinical science updates presented emerging effective approaches for achieving viral suppression among adolescents, as well as recommendations for routine genotyping for HIV-positive pregnant women to avoid viral resistance and suboptimal treatment response. In Track C sessions, academics and implementers presented data on pre-exposure prophylaxis (PrEP) that herald the “dawn of the PrEP era”, and systems research that explores the clinical and capacity barriers keeping key populations, such as transgender people, from accessing services across the continuum of HIV care. Track D provided space for implementers to further expand on structural barriers, examining links between violence and risks of HIV acquisition, and the role of criminalization in stigma and discrimination that discourages service uptake. Track E presented evidence for peer support models to improve prevention of mother-to-child transmission (PMTCT) and community approaches to integrating HIV and TB services.

In the Global Village, a mixture of sessions, networking zones, film screenings and performances on the main stage provided a platform for affected communities and youth to affirm their role and share their vision for Access Equity Rights Now with conference delegates. This was strengthened in bridging sessions and special sessions, where policy makers, activists and academics challenged their own experiences to push the limits of how we approach getting to 90-90-90 and ending AIDS. Special appearances by actor Charlize Theron, Sir Elton
John, His Royal Highness Prince Harry, South African Justice Edwin Cameron, philanthropist Bill Gates and UN Secretary-General Ban Ki Moon placed the spotlight on some of the most challenging issues facing key and priority populations.

**Signs of AIDS 2016’s impact were immediate.** Among conference participants surveyed, more than 86% reported that the conference had reinvigorated the global HIV response, and 76% felt that the conference met or exceeded their expectations. Most delegates reported learning something new. The most popular categories of new information were: scientific evidence in HIV prevention, treatment and care (84% learned something new); HIV stigma and discrimination (76% learned something new); and criminalization related to HIV (74% learned something new). AIDS 2016 media coverage amplified the conference’s messages and information beyond its delegates, with 398 original articles reaching an estimated 1.7 billion people across the globe.

But perhaps most importantly, as delegates convened, AIDS 2016 Local Co-Chair Olive Shisana took the stage and made it clear that the Durban of 2000 had changed as the world around it had shifted. Highlighting the progress South Africa had achieved so far and also underlining the continued challenges the world faces in reaching those most at risk, Shisana called on delegates to examine challenges across different priority groups and to be spurred by the common value of human rights. Where Durban once provided the ground for denial and consternation that ultimately spurred global action to bring ART to millions, in July 2016 the Durban stage was a space to acknowledge the wealth of evidence for rights-based approaches at our fingertips and to commit to using those tools to end AIDS by 2030 with access, equity and rights for all.

**Plenary line up**

The daily plenary sessions featured some of the world’s most distinguished HIV scientists, policy specialists and community leaders. Speakers addressed a theme for each day of the conference.

**Day 1: Tuesday, 19 July 2016 – Where are we now?**

- Global Epidemiology: State of the Pandemic. Steffanie Strathdee, United States
- Implications of Gender on the Response. Elizabeth Anne Bukusi and Maurine Murenga, Kenya
- Universal Access: What Systems for Health Will Get Us There? Alex Coutinho, Rwanda
- Jonathan Mann Lecture: Protecting Human Rights and Reducing Stigma. Edwin Cameron, South Africa

**Day 2: Wednesday, 20 July – What is our goal?**

- TB and Co-Infections: The Long Game. Anton Pozniak, United Kingdom
- Toward an HIV Vaccine. Larry Corey, United States
- Youth Focus: Adolescents at Risk and in the Lead. Tariro Makadzange, Zimbabwe and Michael Ighodaro, Nigeria

**Day 3: Thursday, 21 July – What are the key barriers?**

- Expanding Access for All at Risk and in Need. Cyriaque Ako, Ivory Coast
- Addressing the Reservoir: Barriers to a Cure. Deborah Persaud, United States
- HIV in Global Health and the SDGs. Alessandra Nilo, Brazil

**Day 4: Friday, 22 July – How do we get there?**

- Towards a New Treatment Era?: Translating Results from START and TEMPRANO to Clinical Practice. Serge Eholié, Ivory Coast
- A Lifetime of Support: How We Ended Paediatric AIDS. Dorothy Mbori-Ngacha, UNICEF
- Essential Medicines, IP and Access. Malebona Precious Matsoso, South Africa
- What’s New, What’s Next, What’s Ahead? Carlos del Rio, Mexico
WHO WAS THERE?

The numbers below represent registered participants only. Individuals participating in Global Village activities are not required to register and therefore are not included in the analysis that follows.

Country and region
AIDS 2016 brought together 15,445 participants, 13,065 of whom were classified as delegates from 155 countries (vs. 172 in 2014 and 176 in 2012). This classification includes regular delegates, students/youth/post-docs, media representatives, scholarship recipients, exhibitors and satellite organizers. It excludes accompanying visitors and volunteers. More than half of delegates came from sub-Saharan Africa (vs. 19% at AIDS 2014, where delegates from Oceania made up the majority at 27%).

Age
The age range was similar to that of AIDS 2014, with the majority of delegates around the age of 40, although a substantial proportion (almost one third) were under-35. Young delegates from the ages of 16 to 25 years represented only 5% of the delegate population despite an increase of scholarship recipients within this age group (143 at AIDS 2016 vs. 102 at AIDS 2014).

Gender
There were 7% more women than men at AIDS 2016, and over 100 transgender participants attended. Far more delegates registered as transgender than ever before (0.3% in 2012, and fewer than this in 2014).

Affiliations and institutions
The great majority of delegates were from NGOs or academic institutions.

Over 1,600 delegates represented government institutions from 84 countries, including 29 African countries. The government of South Africa sent more than 700 public servants, many from the health departments and local municipalities. In addition, 105 employees of the US government were present.

The private sector was also well represented, making up a total of 11% of delegates, the majority of whom came from the pharmaceutical or diagnostics industry.

Community representation, including networks of key populations and people living with HIV (PLHIV), as well as community-based organizations (CBOs), provided around 5% of delegates.

This distribution was very similar to AIDS 2014 in Melbourne.
WHAT WAS SHARED?

TRACK A: BASIC AND TRANSLATIONAL RESEARCH

Overview
Presentations in the basic science track ranged from the HIV risks associated with injectable contraceptives to research linking gut and vaginal bacteria with immunity and HIV susceptibility. Participants grappled with the persistent problem of latent HIV in reservoirs as a central challenge in finding a cure, although encouraging breakthroughs have been achieved in vaccine research.

Vaccine in sight?
Developing a vaccine remains a keystone prevention strategy. Breakthroughs include the Pox Protein Public Private Partnership, the follow-up studies to RV144, the Antibody Mediated Prevention (AMP) study, the Ad26/MVA programme and the current Phase 1 pipeline.

“Getting to an AIDS-free generation will require a vaccine.”
Larry Corey, Fred Hutchinson Cancer Research Center and Washington University

In a very recent development, all “go criteria” were met for a clinical trial of the HVTN100 vaccine to go ahead. The trial was set to recruit 5,400 participants in South Africa in November 2016.

The AMP study trials are set to include 4,200 women in South Africa and transgender people and men who have sex with men (MSM) participants in the USA and South America. The study will test the safety and efficacy of the broadly neutralizing antibody VRC01 in preventing HIV infection.

With strong options for effective vaccines in Phase 2 testing, there is some optimism for an imminent vaccine breakthrough.

Finding the cure: Addressing HIV barricades in latent reservoirs
Finding a cure for AIDS depends on eradicating HIV from latent reservoirs and remains an intractable challenge. There is a range of approaches for dealing with reservoirs as the main obstacle to finding a cure. “Kick and Kill” wakes the virus from latency so that ART can seek and destroy.

It was previously thought that infants placed very early onto antiretroviral treatment regimens for post-exposure prophylaxis (PEP) for vertical transmission have far greater chances of survival and long-term viral suppression. New findings suggest that they are also less likely to build up HIV reservoirs. The FRESH cohort study in South Africa was also seen to prove that early treatment can enhance long-term immunity.

A cure or remission strategy in acutely treated infected individuals with low reservoir size involves a combination of vorinostat (latency reversing agent, or LRA), hydroxychloroquine (immune modulator) and maraviroc (entry inhibitor) (VHM). Although vorinostat has been found not to be a potent LRA, there is evidence for targeting viral reservoirs using multiple reagents instead of a single LRA.

Variations on ART
Experimenting with drug combinations in the hope of longer remissions from HIV and more lasting viral suppression has been disappointing. Research on complementing ART with VHM found that viral rebound after treatment interruption was no different under combination treatment compared with ART alone.

Microbiomes: Good bacteria, bad bacteria
Several presentations focused on the difference that healthy or symbiotic bacteria make in the human body compared with more destructive or inflammatory colonies of bacteria.

The CAPRISA team showed that the type of bacteria in the female reproductive tract affects inflammation, which in turn makes a substantial difference to topical PrEP effectiveness. It, for example, Prevotella bivia, a “bad bacteria”, was dominant, women using tenofovir were 13 times more likely to become infected with HIV than if the “good bacteria”, Lactobacillus spp, were the main vaginal occupiers. This means that treatment to maintain a healthy microflora will enhance PrEP and other prevention interventions.

Similarly, healthy gut bacteria become critical in maintaining immunity, reducing viral reservoirs and protecting mucosal tissue for people infected with HIV. Unwelcome dysbiotic gut bacteria increase gut inflammation and increase vulnerability to HIV.
Injectable female contraceptives
There is clear evidence that the progestin injectable contraceptive causes an increase in HIV target cells in the cervix and the vaginal epithelium. Women who use this contraceptive method are more vulnerable to HIV29,30.

Looking ahead
Development of an effective prophylactic vaccine will remain a priority in coming years, and is likely to continue to unfold rapidly. Significant additional research will be needed on the elimination of reservoirs, which remains a research focus towards establishing an effective cure. Exploration of other approaches for a cure, such as stem cell transplants23, excising or cutting out viral DNA from cells29, or removing the gene that links to HIV target cells29, continues. These are all options for further investigation in basic research. In the meantime, basic science to inform the optimization of ART regimens, and concomitant medical treatments will continue to be essential, with ART remaining the treatment cornerstone.

TRACK B: CLINICAL RESEARCH

Overview
While tremendous progress has been made in putting 15.8 million people on ART globally by mid-201524, this treatment has not been evenly distributed, and there are many disparities. Populations are not being equitably reached or retained. Weak virologic suppression, complex co-infections and co-morbidities remain the experience of many people living with HIV, despite the availability of effective treatment.

Optimization of initiation timelines and regimen choice was a key theme throughout, as was adherence, drug resistance and new diagnostic technologies.

Initiating treatment and promoting adherence
Discussions on optimal treatment initiation were juxtaposed with emerging evidence on adherence and drug resistance. In South Africa, a retrospective cohort demonstrated that earlier initiation of ART (at ≤500 copies/mm3) led to rapid initiation for a larger portion or patients, and did not compromise outcomes for patients presenting with lower CD4 counts. A subgroup analysis from the Strategic Timing of AntiRetroviral Treatment (START) trial indicated that earlier treatment initiation is most beneficial to patients who are older, have higher viral loads, and/or have higher Framingham risk scores25.

The guidance to test and treat pregnant women requires further research. Among pregnant women in the Promoting Maternal-Infant Survival Everywhere (PROMISE) study, 34% declined early enrolment on ART after a single counselling session26.

“Differentiated service delivery models are key to improving efficiency while maintaining quality as programmes expand.”
Meg Doherty, WHO

Optimizing ART regimens
A wealth of available ART regimens provide better opportunities for finding optimal treatment plans for each person living with HIV. For people living with HIV currently on regimens based on a protease inhibitor (PI), a non-nucleoside reverse transcriptase inhibitor (NNRTI) or an integrase inhibitor (INI), the STRIVING study demonstrated the non-inferiority of switching to a fixed-dose combination (FDC) of ABC/DTG/3TC (Lake)27. For those with a history of psychiatric illness, a sub-analysis of the START trial demonstrated increased risk of suicide among participants who were taking efavirenz (EFV)28. Practical and emotional benefits, as well as a good virologic response, were presented for a long-acting injectable in a Phase Ib study (LATTE-2)29, while FDC TDF/FTC/ RPV was evidenced to be non-inferior for suppressed adults on an NNRTI-based regimen, providing a potential alternative option for low- and middle-income countries30.

Addressing adolescents
Adolescents are the only group for which mortality is increasing, with the transition from adult to paediatric care being a particularly vulnerable time31,32. Although many perinatally infected adolescents and young adults have positive health and mental health33, sobering virologic suppression rates of only 62% among adolescents aged 15-19 years in South Africa are indicative of the risk of low adherence and/or suboptimal regimen assignments34. These findings underscored the need for adolescent-specific programming, particularly to assist in the transition to adult care. A “cash plus care” model, addressing food security, parenting support and expanded HIV support groups may help improve adherence and treatment outcomes for adolescents35. Most available study data is retrospective, and evidence would be stronger with investment in prospective clinical studies to determine more effective approaches to serving adolescents.

Integrating maternal and neonatal health
Sombre results from Botswana showed that mothers living with HIV are five times more likely to die in the postpartum period than HIV-negative mothers36. Increased risk of adverse obstetric outcomes for women living with HIV were also reported from Nigeria and South Africa37, while data from the United States showed limited evidence of risk of low birth weight or size for gestational age, nor of pre-term birth, among babies of women living with HIV. Continued clinical research
on paediatric challenges is essential, particularly related to neonatal outcomes in resource-limited settings\textsuperscript{38}.

**Improving point-of-care technologies**

Nine million new cases of TB are reported each year and better options are required for diagnosis, including point-of-care (POC) technologies\textsuperscript{39}. Leading in POC progress, GeneXpert is reliable in providing rapid results for diagnosis of extra-pulmonary tuberculosis in South Africa\textsuperscript{40}. Xpert has been effective for HIV-1 quantification and improved management of ART in India\textsuperscript{41}, LYNX POC testing technology has been used to effectively diagnose infants with HIV in rural Zambia\textsuperscript{42}, and POC viral load testing in Malawi has shortened turnaround for clinical review, supporting prompt regimen switches when needed, although the three-test algorithm is too complicated\textsuperscript{43}.

“Screening for TB among HIV clients is a public health priority toward mitigating the spread of TB. There is a need to improve TB infection control in HIV settings to reduce TB co-infection.”

*Alau Kenneth, National Agency for the Control of AIDS (NACA)*

**Detecting and managing viral resistance**

There are many reasons for drug resistance, and resistance surveillance is critical\textsuperscript{44}. In European countries, such as Spain, simplification strategies can be implemented even in heavily experienced patients. In more limited-resources settings, however, important populations, such as pregnant women\textsuperscript{46} (Argentina) or both adult and child patients on second-line regimens (Kenya, Malawi and Mozambique)\textsuperscript{46}, had concerning levels of resistance on second-line regimens. By contrast, drug resistance seems low in Kazakhstan\textsuperscript{47}. The standardization and large-scale application of resistance testing seems essential in resource-limited settings to optimize therapy, decrease transmission and avoid accumulation of resistance.

**Looking ahead**

Clinical research provides resounding evidence for the scale up of a number of interventions in the next phase. This should be supported by implementation and best practice research, as well as monitoring of the epidemiology, distribution of services, accessibility and global scale of the HIV response. Among the current leading concepts, early initiation of ART has been shown to have positive outcomes, although adolescents and all key populations need specially tailored programmes to achieve optimal prevention and treatment outcomes.

“We must fix our societies. We have medically tamed AIDS. But we have not tamed the social and political determinants of HIV, particularly the overlapping inequalities on which it thrives – gender, education, access to health care, access to justice. That is why prevention strategies are not succeeding.”

*Judge Edwin Cameron, Constitutional Court of South Africa, quoting Mark Heywood, Section 27*

Further point-of-care evidence and best practices for TB should be expected in coming years, but available evidence is also robust enough for large-scale roll out of technology like Xpert and LYNX. Clinical areas where far more remains to be done include: research into viral resistance; addressing neonatal and postpartum outcomes for HIV-positive women and their newborns; reported links of EFV use to increased risk of suicide in patients with prior psychiatric illness; and appropriate ART regimes of people with mental health challenges in settings with poor access to psychological or psychiatric care.

**TRACK C: EPIDEMIOLOGY AND PREVENTION RESEARCH**

**Overview**

Prevention discussions were rooted in the revelation that the rate of new infections is not declining, remaining at around 2.1 million per year\textsuperscript{48}.

The current set of combination prevention tools include HIV testing, universal and early treatment of those living with HIV, male and female condoms, voluntary medical male circumcision (VMMC), and oral and other PrEP. While encouraging progress has been made in testing and distributing biomedical prevention opportunities, effective and universally accessible prevention will require more customized, individually relevant options, at scale, across very different settings, that are culturally appropriate and reach diverse populations\textsuperscript{49}.

Confronting self, community and public stigma, supported by social cohesion, mobilization and acceptance, as well as increasing empowerment, is fundamental to encouraging prevention and access to care\textsuperscript{50,51,52,53,54}.

Ultimately, however, the end of AIDS will depend on addressing the social drivers that underpin vulnerability, and will require greater global and national social justice, taking inequities seriously and addressing human rights. Effective prevention depends on stigma reduction, equitable data and reducing legal barriers to access\textsuperscript{55}.
Epidemiology
Phylogenetics, the study of viral genetic variations, enables identification of transmission hotspots by linking clusters of people and mapping where HIV transmission has been most frequently recorded. HIV epidemiology focuses on detailed indicators for response planning at the local level. In order to achieve this, high-quality public health data is paramount in evaluating both service distribution and epidemiology indicators, in order to plan and implement locally sensitive programmes.

Pre-exposure prophylaxis (PrEP)
PrEP research is accelerating, and the range of options, therapies and pipeline agents that are safe and well tolerated is rapidly increasing. Trials and roll out of PrEP have achieved rapid uptake in some settings, including early uptake and good adherence among 216 black MSM in Chicago, particularly men who had a primary partner, and successful roll out of PrEP enrolled 700 clients in Thailand. The IPERGAY studies using oral Truvada for high-risk key populations showed dramatic infection rate reductions compared with placebo. More than 1,000 Kenyan and Ugandan sero-discordant couples took part in an ART/PrEP intervention, with results showing the near elimination of HIV transmission during condomless sex among both gay and heterosexual sero-discordant couples who used a combination of PrEP and ART.

“We are at the dawn of the global PrEP era.”
Linda-Gail Bekker, Desmond Tutu HIV Centre and incoming IAS President

Women using topical PrEP were most interested in duration of protection, ease of use and discreetness, and the vaginal ring was most often favoured. Although PrEP is popular, adherence to topical PrEP has been somewhat disappointing: the FACT 001 trial produced only moderate adherence using PrEP gel, with 48% of trial participants using the gel 50-80% of the time. Adherence, whether to topical or oral PrEP, is a concern. Drug resistance develops most commonly when PrEP is initiated during acute infection, and rigorous acute HIV testing is essential during PrEP initiation. A critical question is how best to achieve rigorous acute HIV testing while initiating PrEP. Despite the risks of low adherence, acute phase testing, drug resistance and increased exposure to sexually transmitted infections (STIs), there is a strong call for taking PrEP to scale. Priority is being given to high-burden settings and high-risk key populations. Kenya and South Africa are among seven countries to have approved PrEP, with Kenya confirming free access to PrEP for all sero-discordant couples.

“PrEP offers a really potent, usable, deliverable HIV prevention strategy ... PrEP has to be part of the puzzle for ending HIV.”
Jared Baeten, University of Washington, quoted by Thomson Reuters Foundation News

Self-testing
Success was reported in a wide-range of HIV self-testing initiatives. Self-testing has been popular, without reducing the rates of clinic testing. In a survey of internet users in China, one-quarter had used self-testing. More than 4,000 requests were received for test kits in Brazil, and 98% of respondents in a test kit survey would recommend it to a friend. Most of both Chinese and Brazilian test kit users prefer online purchasing and direct delivery, and most users prefer to test in private. Some concerns were raised among Zambian practitioners around the psychological impact of self-testing, and the importance of access to follow up and support.

Young women and girls
In South Africa, young women are far more likely to acquire HIV than men of any age or than older women. In an emerging research stream, incentives such as improved social protection, unconditional cash transfers for poverty alleviation, and micro- and non-monetary incentives have been shown to lead to lower rates of transactional, age-disparate and unprotected sex under the right conditions.

Although there is a substantial and growing body of research for young women, there are also some significant gaps. The determinants of high infection rates in young women are still not fully understood. Although age-disparate relationships are considered to be a major determinant (and discussions on “sugar daddies” and “blessers” have been part of the HIV refrain), very little data on these drivers exist. Research and effective responses for young women and girls, as well as adolescents in general, remain top priority.

Youth engagement
Studies have revealed that forced sex is not uncommon (13%) among boys and girls in South Africa, especially among youth living in urban areas, and that risks and vulnerability are high among youth. Vulnerability tends to be layered; a survey of male high school students who were gay or bisexual revealed that they had similar sexual risk behaviours to their heterosexual peers, but had 10 times higher rates of injecting drug use.

Attracting youth to services has been found to work best using incentives, such as internet access, including the OneZone Integrated Digital Platform. Social spaces with music and entertainment have been shown to be appropriate, with the Tutu Teen Truck providing testing; 46% of a sample group were testing for the first time. Interventions provided in youth-friendly settings, such as these, have increased uptake of VMMC, HIV testing and counselling, and ART adherence in various contexts.

Key populations
Although specific key populations are the focus of wide-ranging research and advocacy efforts, a strong conference message was that of the heterogeneity and overlap among these vulnerable groups. Any person may face several of these sources of vulnerability, along with deepened challenges
related to discrimination around gender, youth, migration and poverty, for example, that these key populations face. Categorization is unavoidably superficial in the light of the complex realities and interaction in these populations.

“For all key populations, implemented laws that prevent discrimination and the removal of laws that criminalize or target key populations are fundamental to HIV prevention.”

Tonia Poteat, Johns Hopkins University

Sex workers: Safety, rights and protection from violence reduces sex workers’ risk of acquiring HIV. The focus for sex work HIV prevention lies first in the structural drivers of their broad vulnerability, hinging fundamentally on decriminalization of sex work95.

Transgender people: There has been a vast increase in research on the HIV care continuum, testing, access to PrEP, demographic and psychosocial contexts for transwomen, and trans-friendly clinics96. The next key step is to make the transition to rolled-out health programmes a reality. Direct interventions must be supported by structural interventions to protect transgender people, including putting laws in place that prohibit discrimination based on gender identity in areas of employment, housing, public accommodation and credit97.

Men who have sex with men: Acknowledging MSM diversity is essential for effective programming, outreach and messaging. Social media has been effective for many MSM, whether providing information on risk behaviour or effectively marketing services, such as self-testing98,99,100. Innovative partnerships with gay-specific social media have provided connectivity and credibility to HIV communication. While engagement through social media has been encouraging and shows potential for expansion, these platforms reach only a section of MSM, carry risks associated with breaches of privacy and sexual orientation disclosure, and rely on access to smart phones and networks101,102,103. MSM who are not connected to social media or who do not self-identify as gay have less access to information and services.

People who inject drugs (PWID): Punitive laws encourage police violence and incarceration, which in turn have shown to increase HIV incidence among PWID104. In a dramatic increase, rates of new HIV infections in Eastern Europe and Central Asia have increased by around 50% between 2010 and 2015, while rates of new infections remain stable, although higher, in Africa and the Asia-Pacific region105.

This rapidly growing epidemic is in a context of low access to services. Specific combinations of services that support PWID are critical106,107. Needle and syringe programmes, opioid substitution therapy (OST) and ART for people living with HIV are all necessary to reduce incidence108. The central issue for PWID, as for other criminalized populations, remains obstructive laws and policies, which effectively prevent access to care for people who use drugs109,110. Advocacy will be targeted at new policies that transform approaches to drug use, addiction and control worldwide, including the decriminalization of minor and non-violent drug offences.

Prisoners: Although data are limited, disparities between national HIV rates and those in prisons is a cause for concern, as well as the high rates of TB, STIs and hepatitis111,112,113. Female prisoners, adolescent and juvenile males are at particular risk of sexual coercion and violence, and in countries where homosexuality is criminalized, condoms are not provided in prisons114. In mutually reinforcing vulnerability, incarcerated people have high prevalence of substance use, and people who inject drugs are more likely to be incarcerated and, once in prison, PWID are particularly vulnerable to HIV infection115,116. Risky behaviour, such as sharing of needles, tattooing equipment and razors, increases risk of HIV117. HIV prevention support and follow up after release, as well as holistic, integrated health and prevention services in prison, are human rights imperatives and key HIV prevention elements118,119,120,121.

Looking ahead

There is a renewed call for greater social justice and equity as the foundation to addressing the epidemic effectively and for concerted development of a greater understanding of structural and social barriers that prevent access to health. While bioefficacy data for PrEP are sufficient at this stage, implementation data – the how of PrEP programmes – will continue to be a priority in coming years. Specifically, differing approaches to PrEP, optimized and tailored to the needs of those using them, will be the next frontier of research.

Continued evidence on methods of educating on and implementing self-testing programmes and campaigns are also likely to be topics of interest – especially in a landscape where PrEP becomes more widely available and health consumers are increasingly empowered to manage their own prevention and testing options. There is still significant need for more data on risk factors and successful interventions for certain populations, particularly for adolescent girls in sub-Saharan Africa, PWID and incarcerated people in Eastern Europe and Central Asia, and for trans people everywhere.

TRACK D: SOCIAL AND POLITICAL RESEARCH, LAW, POLICY AND HUMAN RIGHTS

Overview

While much has been achieved since the previous International AIDS Conference in Durban, the evidence presented at AIDS 2016 shows that there is still much to be done to achieve the 90-90-90 targets. Much of this is due to the social, economic and political drivers of HIV remaining largely unresolved122.

The distribution of access to treatment programmes, for example, has been far from equitable. A key conference message was the urgency of equity of access for all, across regions, populations and genders123,124.

Structural inequity barriers, such as stigma and discrimination,
criminalization, gender-based power imbalances, cultural norms and the socialization of young people, must be unravelled and challenged\textsuperscript{125,126,127}.

Despite widespread acknowledgement of stigma as a foremost barrier to access to rights and services, there is far too little focus and investment in stigma-reduction interventions within national plans and programmes\textsuperscript{128,129,130}. Reducing stigma has to underpin all interventions.

\textit{“We can’t treat our way out of the epidemic.”}
\textit{Steffanie Strathdee, University of California, San Diego}

An exciting and escalating trend has been the emergence of a movement united against criminalization of specific populations, including PLHIV, lesbian, gay, bisexual, transgender and intersex (LGBTI) people, sex workers and people who inject drugs\textsuperscript{131}. Laws and policies that criminalize and penalize the most disenfranchised will continue to fuel the inequities that drive vulnerability and poor access.

Finally, a resounding theme through the conference has been the role, accountability and participation of civil society and community. There was a call to address the trend to cut community-led and human rights approaches in the drive to try to do more with less\textsuperscript{132,133}.

\textbf{Structural marginalization}

Social, political, legal, economic and human rights factors, along with stigma and discrimination, profoundly impact vulnerability and resilience to HIV. These structural drivers intersect with biomedical, behavioural and epidemiological sciences. Together they impact, and are affected by, policies, programmes, services and other interventions. The HIV response is one element on a complex social system, requiring nuanced, intersectional approaches. There is an urgent need for investment to scale up programmes and evaluate new approaches to promoting human rights and addressing the structural drivers of HIV\textsuperscript{134}.

HIV-related health outcomes have improved as a result of interventions for structural drivers, such as strategic litigation\textsuperscript{135}, sensitivity programmes for police, and free treatment\textsuperscript{136,137}. Many interventions in the response, however, are focused on directly addressing HIV infection, without shifting the underpinning social, political, economic and rights causes.

\textbf{Violence and HIV}

Violence and the threat of violence directly cause HIV infection and increase the probability of risky sex behaviour. Key populations are exposed to violence at higher levels than the general population. A quarter of Nepalese female sex workers’ clients refused to pay after having sex\textsuperscript{138}; among female sex workers in Abidjan, 31% experienced intimidation and harassment from police and 60% regularly experienced intimate partner violence\textsuperscript{139}. In a South African informal settlement, 65% of women had experienced violence\textsuperscript{140}; in six cities in the US, 56% of black trans women sampled had experienced physical assault in the past year\textsuperscript{141}. Pervasive violence is a key factor for HIV-vulnerable communities.

\textit{“HIV is a viral disease that is driven by policy.”}
\textit{Michel Kazatchkine, UN Special Envoy for HIV/AIDS in Eastern Europe and Central Asia}

\textbf{Stigma and discrimination}

Despite widespread acknowledgement of stigma as the foremost barrier preventing access to care for people living with HIV, as well as obstructing prevention and undermining mental health\textsuperscript{142,143,144,145}, there is far too little focus and investment in stigma-reduction interventions within our national plans and programmes. Dealing with stigma in health facilities is an urgent priority\textsuperscript{146}, and reducing stigma in all its ugly forms has to be at the centre of all our interventions\textsuperscript{147}.

The revolution against stigma begins internally as individuals begin to value themselves more and assert their rights\textsuperscript{148,149,150}. Outward activism inspires social mobilization, awareness raising and public education\textsuperscript{151,152,153}. People living with HIV continue to experience severe verbal stigma, exclusion and discrimination across the globe\textsuperscript{154}. In war-torn areas of the Middle East and North Africa, human rights violations endured by women, MSM and PLHIV include denial of medical services, control over their bodies, housing, education and basic human dignity\textsuperscript{155}. Stigma and poor treatment by the health services deters PWID and other key population members from seeking health services\textsuperscript{156}. Speakers focused on action being taken by key populations. Sex workers are forming social movements, in part to define their position and workplace
identity, and to develop responses to discrimination\textsuperscript{157}. The work by transgender women on gender affirmation and social resilience shone through at AIDS 2016\textsuperscript{158,159,160}.

Gender
Innovative approaches to gender transformative goals and to gender identity and sexuality education are essential in designing interventions to address power imbalances\textsuperscript{161,162,163}. Structural barriers, such as gender norms, binary definitions of gender, the socialization of adolescents and power imbalances in relationships, continue to greatly exacerbate risks of infection. Pervasive gender inequality, power dynamics and “victim status” were identified as the root causes, preventing people who are disadvantaged by gender norms from equally accessing justice\textsuperscript{164,165}. These must be unravelled and challenged through comprehensive sexuality education, addressing gender equality in a holistic manner\textsuperscript{166}. Key areas for action include addressing intersections between HIV and gender-based violence, ending child marriage, keeping girls in school, gender identity advocacy and decriminalization of non-binary relationships, with the inclusion and acknowledgement of the journeys of men and boys in terms of gender\textsuperscript{167,168}.

Youth
Young people continue to be left out and left behind\textsuperscript{169}. Overlaid in every context, young people face unique challenges with less power and influence. Young people who are marginalized or disadvantaged are at particular risk of severe neglect and family trauma and exclusion (e.g., youth living with HIV, young pavement dwellers, young people who sell sex, young people with disabilities, young MSM, transgender youth, and young PWID)\textsuperscript{170,171,172,173,174}. Youth across the general population are more vulnerable to HIV infection and less likely to access services.

\textit{“We cannot beat HIV without giving young people in every country the voice that they deserve.”}

\textit{His Royal Highness Prince Harry of Wales}

The role of young people in leading advocacy and engagement, and inclusion of youth in platforms that affect them, is key to relevant and effective youth programmes\textsuperscript{175,176}. It is critical that youth have mentoring support to engage in advocacy on local, national, regional and global platforms and foster global solidarity across young key population communities. Young people must be recognized not merely as beneficiaries, but also as decision makers, with meaningful, non-tokenizing partnership roles\textsuperscript{177,178}.

Key and other priority populations
There are vast differences in access and experience in each dimension of the HIV response between different countries and regions\textsuperscript{179,180}, as well as within societies, where disparity, discrimination and exclusion continue to impact on marginalized priority populations\textsuperscript{181}. Top reasons for exclusion of key and other priority populations include lack of awareness by society, violence and sexual abuse, discrimination in healthcare settings, and low awareness and risk perception about HIV\textsuperscript{182}. Prevention and treatment equity are an imperative for all: for LGBTI, sex workers, PWID, people with disabilities, indigenous people, migrants, prisoners, young people, young people living on pavements, adolescents, women, boys, men, the elderly and all PLHIV, taking account of the texture and diversity within each of these key and priority populations\textsuperscript{183,184,185,186}.

Decriminalization
The emergence of a movement united against criminalization of specific key populations, e.g., LGBTI, sex workers and PWID, was seen as one of the key highlights of the conference\textsuperscript{187}. Discrimination and criminalization are huge barriers to achieving global targets on HIV\textsuperscript{188,189,190,191,192}. Laws criminalizing homosexuality continue to impact on health-seeking behaviour of LGBTI and to exclude people in prison from access to prevention entirely\textsuperscript{193,194}. Misguided laws and policies propagated by the “war on drugs” that criminalize people who use drugs also exclude them for care and support\textsuperscript{195,196,197}, with escalating HIV incidence in Eastern Europe and Central Asia attributed partly to the legal status of people who inject drugs\textsuperscript{198,199}. The criminalization of sex workers creates carte blanche for violence, rape and sexual abuse, and prevents recourse to justice\textsuperscript{200}. The criminalization of HIV non-disclosure constitutes a form of gendered structural violence that exacerbates risk for interpersonal violence among women living with HIV in Nigeria\textsuperscript{201}.

Criminalization has increased HIV, hepatitis C and TB prevalence globally. Decriminalization alongside constructive engagement, such as policy education and sensitization, needle exchange, OST and implementation of protective laws, are urgent priorities\textsuperscript{202}. An effective HIV response requires national accountability for effective access, law reform and human rights\textsuperscript{203,204,205,206}.

Former South African Constitutional Court Judge Zak Yacoob explained clearly how current laws are inconsistent with the provisions of the constitution, calling for the repeal of apartheid-based laws as a constitutional imperative. The former President of Switzerland, Ruth Dreifuss\textsuperscript{207}, outlined steps for drug reform.

Human rights
Human rights programming has proven to improve HIV-related health outcomes\textsuperscript{208}, and it is clear that human rights barriers obstruct access to treatment\textsuperscript{209,210,211}. The many context-specific structural drivers of HIV will require that across the response, practitioners, leaders and communities add their voices and political weight to calls to ratify and implement global human rights agreements and to calls for criminal justice reforms\textsuperscript{212,213}. Protecting and promoting rights requires confronting: unequal power imbalances; the lack of economic independence and opportunity; weak social support; persecution of immigrants; and cultural stigma and religious norms around sexuality, race, gender, morality and “acceptable” behaviour. Just as technical grasp and knowledge are critical to effective social and medical responses, all HIV service providers and community members (not only those...
and gentlemen, as a gay
who has lived a life
my race

Legalize
Trans

HIV IS
NOT A
CRIME

HIV IS
NOT A
CRIME

SEX WORK
IS WORK!
tasked with human rights protection) benefit from a thorough understanding of sexual and reproductive health rights laws, norms and destructive social paradigms, the correct interpretation and obligations of the law, and the ways in which already discriminatory laws can be distorted.

Substance abuse, poverty and food insecurity, migration, violence, homelessness and sexual or gender discrimination are just some of the structural drivers that increase vulnerability in general and therefore also vulnerability to HIV infection and reduce access to treatment and support. There are no silver bullets. Each complex context requires an analysis of layered responses interconnecting the influence of race, gender and class. Contexts are highly geographically specific, for example, the Middle East and North Africa region, suffering heavily from conflict, economic upheaval, a refugee crisis and migration issues, has a unique set of parameters. There is a call for investment in scaled-up, multidisciplinary programmes that explicitly promote human rights and address these structural drivers.

Civil society activism

Civil society has been a powerful force for change in many aspects of the HIV response, and is as varied and indefinable as society at large. In a recessionary global economy, after decades of HIV financing, civil society was declared to be in crisis. Funding is being reduced, service provision has come to dominate civil society’s role, and the voices of activists have been muted by dependency on finances and the demands of institutional formality.

Community-led monitoring and social advocacy have been shown to impact on social norms within communities at the local level. Equally, at the global level, civil society presence and advocacy have been fundamental in moulding the Global Fund, PEPFAR and other major international partners’ strategies, despite an increasingly conservative global environment.

“When you don’t have money, he controls you ... if you have money at home you will not accept, you will not accept at all to have sex without a condom with a stranger.”

Sex worker quoted, oral poster discussion

The immediate litmus tests of accountability for commitment to supporting the response include a fully funded Global Fund and national policies taking a stand against exploitative patent laws. Countries must own up, take action and prioritize interventions that will protect adolescent girls and young women from HIV. Collective responsibility, innovation and community-centred action is needed in order to close the gaps and meet the targets of ending AIDS.

Looking ahead

The key themes moving into the next era in the HIV response include sustaining the drive towards decriminalization and the identification and prioritization of textured responses that address the needs of all populations, and specifically support those who have been left behind. To achieve this, emphasis should be placed on collaborative approaches, supporting both integrated and participatory biomedical interventions, as well as the collective action of community and civil society. Making human rights and equity the touchstone for the HIV response is critical to holistic and effective responses. Civil society requires funding, both for community organizations, which are best placed to provide holistic, integrated household level services and, perhaps even more urgently, for civil society organizations, which hold governments and policy makers to account for rights, equity and transparency.

“It’s not just about scientists or politicians, it’s about people. Let’s go back to our communities who know what works and doesn’t work.”

Vuyiseka Dubula, Sonke Gender Justice

TRACK E: IMPLEMENTATION RESEARCH, ECONOMICS, SYSTEMS AND SYNERGIES WITH OTHER HEALTH AND DEVELOPMENT SECTORS

Overview

While the strides made in the global HIV response are acknowledged, there is consensus that the movement is only halfway there. Implementation research involves understanding the strategies and practice for taking evidence into practice at scale in order to address the response gap and achieve 90-90-90 targets. The HIV response must be delivered in a way that is nested into broader, multi-sectorial social and health systems, that achieves impact, optimizes quality and remains cost effective, and that is accessible and acceptable to all. The mechanisms for integration and cost-effective delivery are measured and compared through quality assurance and continuous monitoring, learning and adjustment.

Effective implementation requires efficient and streamlined delivery at scale, in parallel with addressing barriers to access and outcomes along the HIV care continuum. Delivery must be thoughtfully integrated into a holistic healthcare model, itself nested into local development and social support frameworks and infrastructure.

Quality improvement

Answering implementation questions requires approaches that are feasible within the practicalities of real-life situations and health and social services. Quality improvement monitoring and evaluation lie at the heart of implementation research, and should be used continuously to ascertain whether a model is optimal, to identify risks and shortfalls, and to test possible adjustments to increase cost efficiency, effectiveness and reach. Quality improvement
requires organizational engagement across a wide range of functions and at all organizational levels, as well as collaboration with external stakeholders.

Quality improvement also depends on practitioner participation and continuous participatory research, in situ, and within the influence and interests of clients and healthcare workers, or other service providers. Participatory research significantly improves outcomes in elimination of mother-to-child transmission, for example, permitting consultative, responsive programming and design. In another example, in Kenya’s three cycles of a Plan-Do-Study-Act quality improvement method, each produced a shift in strategy and ultimately linkage to care after testing increased from 60% to 98%.

10-10-10
Implementation science concerns not only the delivery of services under ideal conditions, but also mechanisms to include populations that are harder to reach. While 90-90-90 is accepted as a valid target, the 10% not reached will invariably be those who have least access to rights, services and justice in broader social context. As global guidelines evolve, systems are in continuous development in order to effectively and affordably roll these out. Broad implementation strategies and responsive, customized and relevant approaches through local engagement and community partnerships are essential.

Linkages and integration
The holistic needs of each client should determine his or her path through the health, social and justice support systems. Creatively using all possible opportunities for integration of services should create inclusive and comprehensive “systems for health”, rather than biomedical-centric “health systems”. Acting on the linkages between HIV and other disciplines has implications for the structuring and training of human resources and for referral networks and systems within a continuum of care in the broadest sense. The breaking down of fragmented siloes is critical.

PrEP for adolescent girls requires, for example, linkages with a range of education systems, integrated family planning and sexual and reproductive health and rights, strategies to keep girls in school, and support for gender-based violence. Practical solutions to reach and maintain relationships with young women in holistic support will be essential for effective PrEP.

“HIV services need to be from the city to the village to the home and involve the infected, the affected, public systems, private systems and civil society in an integrated and synergistic way. The key is to be a ‘patient-centric system’.”

Alex Coutinho, Partners in Health

Among the most urgent areas to be addressed is the integration of HIV, TB and hepatitis C diagnosis and treatment. Vertical programmes that treat these conditions separately are inadequate, and systems are needed that fully integrate innovative, client-centred, streamlined, and comprehensive services that maximize the use of limited resources.

Relevance and participation
Increases in reach, scale, effectiveness and sustained engagement will continue to require innovative approaches across a broad range of contexts. Community involvement, capacity building and engagement of communities are key success factors for HIV programmes. As an example, peer and community participation, along with broad, multipronged approaches have been critical factors in achieving virtual elimination of vertical transmission from mother to child.

Innovation
If “what got you here won’t get you there” is accepted, innovation will be critical to implementation in the next era of the HIV response. Some cutting-edge approaches to achieving scale and depth include: self-testing, decentralized community and home-based testing, testing uptake incentives and strategies; same-day testing and ART initiation; methods for roll out of viral load monitoring; interventions for people in prisons; and savings and economic security groups among sex workers.

Front-loaded investment
The catch22 of investment now against savings later is a key challenge in a context of financial limits and careful prioritization. The lag between investment and impact means that front loading investment over the next four to five years will have greater impact than slower flow of resources, ultimately impacting on new infections and averting deaths more cost effectively. Reflecting on this balance in hindsight, better investment in the right place with the right people in the right way up to now would have resulted in less HIV to finance.

Financing the response
Together, quality improvement and efficiency analysis are essential for decision making in a climate of competing priorities and flattening or declining funding. Cost-benefit analysis is necessary to determine the costs of outcomes, along with the determinants for both cost and effectiveness. With destructive laws and criminalization directly contributing to HIV infection rates, accountability for policy is inseparable from HIV financing. Human rights and law reform should reduce the road blocking of implementation by laws that criminalize and marginalize, confronting countries that waste multilateral funding by maintaining criminalization.

The prohibitive cost of drugs and healthcare is an effective infringement of human rights and access to services, both for individuals and for low- and middle-income countries. The challenges of the financial options for greatly intensifying the response require reaching explicit agreements between countries and donors outlining programmatic and financial
responsibilities and specifying mechanisms for accountability, including mechanisms for accountability\textsuperscript{335}. Trade-related intellectual property rights (TRIPs) were discussed, reflecting on whether the limitations and flexibilities to intellectual property and patenting laws under the global TRIPs agreement were fully utilized. Least-developed countries should make full use of the TRIPs transition period and amend their laws to include all TRIPs flexibilities to ensure sustainable access to affordable generic medicines\textsuperscript{336,337}.

Significant differences exist in HIV drug prices between countries with similar gross national income levels, and mechanisms to ensure fair pricing across middle-income countries (MICs) must be improved to ensure sustainable access to treatment\textsuperscript{338}. Affected countries should enact health-friendly patent policies that promote affordable medicines, invest in PLHIV networks to engage with government patent offices and health ministries around information gaps, and leverage expertise from academic research institutions\textsuperscript{339,340}.

“Simultaneous coordinated patent challenges” are most likely to be effective in combatting the exclusion of MICs from access programmes and voluntary licences, increasing pressure on pharmaceutical companies while strengthening the position of country patent offices and governments in addressing patents and public health\textsuperscript{341,342}.

The three critical components of sustainable financing are: 1) fully funding the Global Fund; 2) transitions in middle-income status; and 3) innovations and leveraging resources from non-traditional sources, such as subtle wealth-related taxes, towards fairer global financial distribution in cooperation with the private sector\textsuperscript{343,344,345}. Advocacy for contributions to global HIV financing, as well as realistic domestic financing, are essential for the global response\textsuperscript{346,347,348}.

Looking ahead
Key themes of innovation towards achieving twice as much with similar resourcing to achieve the 90-90-90 targets will be a central to the next phase of the response. The innovative sourcing and deployment of financial, human and organizational resources will be essential, bringing fresh approaches and multiple, experimental alternatives into play. Effective implementation will require far more creative, decentralized and integrated models for services, incorporating multisectoral cooperation, as well as broad community, stakeholder and client participation. How the response is financed will evolve as resource pools shift or become more constrained in many countries; the coming years should yield powerful lessons on what does and does not work when domestic financing takes on a greater share. In the process, careful vigilance is needed over who constitutes the 10-10-10 who are left behind, as well as rigorously inclusive approaches to ensure that the most marginalized do not continue to be excluded.

“The cost of drugs should no longer be an issue. The new $90 $90 $90 – there should be standard prices in low/middle income countries, worldwide: $90/year to treat HIV, $90/year to treat Hep B $90/12 week course to cure Hepatitis C.”

Anton Pozniak, Chelsea and Westminster Hospital NHS Trust
COMMUNITY, LEADERSHIP AND ACCOUNTABILITY

THE GLOBAL VILLAGE

While community engagement permeated the conference, its home was seen as inside the 7,000 square meters of the Global Village. The Global Village served as a diverse, vibrant, positive space for community engagement and cross-cultural dialogue, based around the conference theme, Access Equity Rights Now. Aiming to link North to South and East to West, as well as to provide space for bridging across activist movements, leadership and science, the Global Village was host to a bustling array of discussion and performance, where art and activism intermingled with education and dialogue.

“I was in awe of the capabilities of the human spirit from the Global Village.”

All activities in the Global Village were free and open to the public (not restricted to conference delegates), allowing residents of Durban to engage in the space regardless of their affiliation with the conference. Though organizers did not conduct an official count of attendance, the AIDS 2016 Global Village saw approximately 10,000 visitors per day. Out of survey respondents, 92% visited the Global Village at least once, and 42% spent time there on most days of the conference.

“The Global Village showed the strong leadership of the community and the power of young people.”

From Monday, 18 July, until Friday, 22 July, the Global Village held 77 designated sessions, including panel discussions (30), workshops (24), presentations with question and answer sessions (15), debates (4) and meet-the-expert sessions (4), as well as 68 activities taking place on the Main Stage and the film screening room, including film screenings (30), musical (10), theater (11), dance (4), readings (7) and other performances (6).

“The Global Village allowed more room for free thinking and talking and that was the space that I used most.”

Networking across sectors

Though the Global Village was the de facto home of the community response at AIDS 2016, it provided an accessible space for community members to reach across sectors and engage in learning, advocacy and discussion with scientists, policy makers, donors, and celebrities alike. The Dr Nelson Mandela Lecture highlighted the role of political leadership in pushing forward the HIV agenda and in maintaining the progress achieved so far, drawing on examples of Mandela’s own leadership in Durban in 2000349. Relationships between donors and recipients were unpacked in a dialogue that focused on programmatic learning, and integrating feedback loops into existing monitoring and evaluation mechanisms to assure that funders invest in what works, and implementing partners are given agency to learn and adapt350. Domestic resource mobilization was also addressed in a workshop on using data to assure that domestic financing invests adequately, and safeguards funding for key populations – a funding stream which has historically been at risk after international donors exit351. Cross-sectoral connections also included the translation of complex scientific topics, such as antibody responses and vaccine research, where expert panelists facilitated learning and discussions on prospects for therapeutic and prophylactic vaccines, helping layperson audience members to understand the challenges in reaching success352,353.
Using arts for empowerment
A variety of media were featured to promote empowerment of affected communities, especially PLHIV. UCLA Art and Global Health Center photography exhibition explored unconventional portrait photography for PLHIV to tell their stories by photographing their daily life, highlighting and breaking down stigma and prejudice\textsuperscript{344}. A documentary featuring the comedy of Pieter-Dirk Uys (Tannie Evita) demonstrated the role of satire in creating social change on other (non-HIV) issues, including apartheid, voter education and democracy, homophobia, and civil liberties\textsuperscript{345}. “Rights, Camera, Action!” documented the lives of women living with HIV in Uganda and Namibia, showcasing how positive women can form support networks, encourage each other to seek needed care, and stand together to fight the ill effects of HIV, including stigma and discrimination as well as forced sterilization\textsuperscript{356}.

These highlights were complemented by documentaries featuring human rights violations against transgender sex workers, a workshop on working with journalism and other forms of media to help end the epidemic, and Main Stage dance activities leading the audience in health-promoting dance. This range of arts formed the foundation of a vibrant, expressive Global Village addressing serious topics in an accessible, lively manner.

Sexual and reproductive health and rights
SRHR was a strong, recurring theme in the Global Village, cutting across populations to relate to women and young girls, as well as LGBTI populations and sex workers. Lively discussions brought youth from Cameroon, a sex worker from the Netherlands and an LGBTI activist from Pakistan to discuss the harms caused by taboos around sexual desire and the lack of comprehensive sex education in various settings around the world\textsuperscript{357}. Film and performances were also used to convey messages about the negative effects of stigma and discrimination surrounding sexual and reproductive health. Drama for Life Playback Theatre provided a platform for people to share their hidden experiences of sexual, verbal, physical and emotional abuse within sexual relationships\textsuperscript{358}, while a theatre performance the following day focused on typical chauvinistic attitudes experienced by South African university students, and their potential for harm towards the sexual empowerment of young women\textsuperscript{359}.

The Global Youth Coalition on HIV and AIDS moderated a skills-building panel discussion featuring youth leadership experts from Zambia, Zimbabwe, Uganda and the United States to discuss effective strategies for peer-to-peer learning and effective, rights-based advocacy by youth around SRHR and HIV\textsuperscript{360}. A high-level panel featuring a recorded speech from Ban Ki Moon focused on the role of young people in decision-making on prevention, care, treatment and support programming, and focused heavily on how to erase tokenism and provide meaningful mentorship and opportunities for growth for engaged youth\textsuperscript{361}.

Resilience and positive living
Skills building and experience sharing for PLHIV were featured in a range of practical workshops and discussions, from assisting newly-diagnosed PLHIV to process their status\textsuperscript{362}, to supporting caregivers to strengthen psychosocial support based on positive experiences from Lesotho\textsuperscript{363}. One session featured in-depth discussions on psychosocial needs of children living with HIV, and effective counseling strategies for caregivers to facilitate improved support\textsuperscript{364}, while the National Association of People Living with HIV and AIDS of South Africa shared best practices on utilizing existing structures to reduce stigma and discrimination, and promote positive health dignity and prevention for PLHIV\textsuperscript{365}. Best practices from the Caribbean were shared in a session on using community-based organizations and peer navigators to improve adherence for PLHIV\textsuperscript{366}.

PrEP and emerging technologies
New prevention technologies were a hot topic at the Global Village, as in the rest of the conference programme. However, in the Global Village setting, discussions were uniquely focused on community experiences — many which may not yet have been documented through formal research or evaluation processes. Of note were discussions on stigma associated with PrEP, especially for women, and the important role of men in supporting women to use PrEP. One prominent session was supported by the Grandmothers Unite Team, highlighting the role of cross-generational support in young women
and men accessing emerging prevention technologies and approaches. While the majority of diversified formularies are targeted at women (oral, injectable, and vaginal rings all being available as options), it was noted that there was a lack of male voices among panelists; men who were in attendance at this session stressed their personal readiness to support women and other vulnerable groups in accessing PrEP, highlighting an opportunity for greater male engagement.

In addition to structured sessions, the Global Village was host to a diverse exhibition space, including:

- Networking Zones (23), with representation from LGBTI communities, adolescents and children, people living with disabilities, girls and women, faith based organizations, and regional civil society groups; issues of focus also included treatment access, gender based violence, and civil society’s interface with the Global Fund;
- NGO Booths (63), which showcased the work of international HIV programmes;
- Marketplace Booths (20), which provided HIV related non-governmental organizations and projects with an opportunity to sell their products to generate income for reinvestment into HIV programming;
- Art Exhibitions (50), which featured, among many others, regional African voices and messages, key populations activism, new ways of storytelling through graphic novels and comics in Sweden, transgender sex worker voices from China, messaging on LGBTI social justice, and the Sustainable Development Goals.

Looking ahead

The Global Village is a dynamic space defined by a multitude of community segments, and also highly responsive to the location of the conference. With this in mind, it is difficult to predict a discrete agenda to be expected from community engagement in coming years, or to forecast the principle issues which may be showcased at the next Global Village at AIDS 2018. However, in line with many of the conference tracks, the issues of PrEP, SRHR, youth engagement and programming, and involvement of community in the changing financial landscape are likely to continue as forefront issues, being discussed at community gatherings in coming months and years.

Youth Programme

The Global Village served as the home base for youth programming, with 13 sessions explicitly devoted to discussing youth leadership and mobilization within the global HIV response. Youth sessions focused on the youth community preparing itself for leadership and accountability, engaging in the access to medicines movement and honing advocacy strategies. For example, the session ‘Young People are the Future: Listening to Young People, Ensuring Their Protection and Investing in Their Health’ generated discussion on the importance of actively engaging young people in assessing, designing, innovating and monitoring programmes which are meant to serve them. A mixture of media, was used with the session ‘Usawa’ (a poem/choral verse) being utilized to recount stories of young women aspiring to live in a HIV free generation, as well as addressing the difficult but linked topic of gender-based violence. As part of the youth movement, a notable session on youth rights and mental health was delivered (‘Have You Seen My Rights? The Mental Health and Sexual and Reproductive Health and Rights Needs of Adolescents and Young People Living with HIV in East Africa’), engaging discussion on the mental health and SRHR needs of young people living with HIV and the barriers that prevent adolescents and young key populations from accessing SRHR services. There were also several sessions on the scaling up of the provision of sex education, as well as access to SRHR services.
Beyond the Global Village, there was significant focus on youth throughout the conference programme, with 117 sessions and 144 abstracts explicitly addressing youth. This served as a powerful tool for youth from varying countries and backgrounds to bring their stories and knowledge to the fore, to deliver valuable perspectives and engage in important conversations. One of the most-popular sessions within this was the session with Prince Harry, who delivered a clear message on the risk of complacency and spread the message to his generation that the fight against HIV and AIDS has not yet been won.

Throughout the programme, youth also engaged in dialogue on critical approaches for engaging adolescents and young women in treatment programs, PrEP access and generating awareness of post-exposure prophylaxis (PEP). The film ‘Because I Am a Girl: the Story of Shivah and Bivah’ highlighted some of the challenges that affect effective utilization of PEP among young women and girls. Furthermore, youth were encouraged to participate in the Access to Medicines debate (Encouraging Youth to Actively Participate in the Access to Medicines Movement). The session “Harmonizing the role of YPLHIV networks in Africa” was aimed at strengthening the response of young people living with HIV in Africa and act as an open discussion forum on actions being taken. Discussions led by youth proved to be positive, determined, and organized, highlighting the great potential for the next generation of leaders in the global HIV response.
The media and digital coverage of AIDS 2016 was central to leveraging the conference as a global platform to build awareness and engagement around priority HIV issues.

The return of the International AIDS Conference to Durban was an opportunity to showcase how far the world has come since the 2000 conference. The backdrop of returning to South Africa after 16 years built a natural narrative on the progress made since the earlier days of the epidemic. Although the conference served as a milestone in how the HIV response has been revolutionized – particularly in South Africa – it also served as a reminder to the world that AIDS is not over. With the conference as a hook, AIDS 2016 placed a spotlight on key HIV issue areas, which included coverage of women and girls, emerging prevention strategies (including PrEP), cure research, vaccine progress, and remaining coverage gaps for LGBTI populations, among others.

Between 23 July and 5 August 2016, the conference garnered a total of 398 original stories with over 1.7 billion media impressions throughout South African and international media, including top-tier US, UK and other global publications such as the BBC, Washington Post, Wall Street Journal, The Guardian, The Economist, Agence France Presse, and El Pais. Popular online publications, such as Buzzfeed and Vice, also featured news from the conference. South African coverage included the African News Agency, Independent Online, and SABC. The science of the conference was covered in popular medical and scientific outlets including MedPage, Medscape, Science, and STAT; HIV-specific media such as AIDSmap also covered conference content extensively. Media coverage, like the content of AIDS 2016 itself, varied from optimistic to cautionary – highlighting progress and noting challenges and gaps.

Through digital platforms, AIDS 2016 served as a hub to drive online conversations and increase engagement. Social media coverage was also substantial, with conference coverage generated and shared both by those who were present onsite and those engaging remotely. Over one million people were reached by official AIDS 2016 social media, including the engagement of 62,718 people via the AIDS 2016 Facebook page and 1,629 on the conference Instagram account. Over 144,000 tweets using the #AIDS2016 hashtag, with significant additional audiences captured by partner organizations and high-profile individuals, including Charlize Theron (468,135 Twitter followers), Elton John (560,840 followers), Kensington Palace (757,840 followers), Hillary Clinton (8,335,637 followers) and Bill Gates (30,042,885 followers). In addition, 23,783 minutes (almost 400 hours) of viewing time were logged on the AIDS 2016 YouTube channel.

Of the scholarship recipients, 49 were journalists or affiliated with the media. In addition to these, a further 789 were formally registered as media representatives.

**Snapshot: Media headlines from AIDS 2016**

“AIDS conference returns to a changed South Africa” – Reuters

“Global AIDS gains ‘inadequate and fragile,’ UN chief says” – Associated Press

“A cure for AIDS is no longer unthinkable” – Washington Post

“Researchers warn of no quick HIV cure” – Agence France Press

“Anti-HIV Ring Could Offer Good Protection” – MedPage

“Huge boom in teen HIV cases could cause epidemic to spiral” – New Scientist

“Drugs almost eliminate risk of sex with HIV positive partner, African study shows” – Reuters

“Elton John: LGBT people must be part of AIDS fight” – Associated Press

“AIDS Scientists Hail Promising Prevention Study” – Voice of America
HOW DID IT GO? CONFERENCE EVALUATION RESULTS

EVALUATION METHODS

An online delegate survey
Out of 13,028 total delegates, 2,395 (18%) responded to a 45-question survey, the same response rate as achieved by the 2014 survey. This response rate is considered of sufficient size to be statistically representative (95% confidence with a 2% margin of error) of the overall delegate experience.

The data and quotations below are all drawn from the survey, unless otherwise stated. The quotations used have been minimally edited, for clarity and brevity where needed.

Responses were received from 127 out of the 155 countries represented. Many African countries, along with Australia contributed substantially higher than average response rates. Out of the top 20 countries represented at the conference, the UK, USA, China and South Africa gave the lowest response rates on the survey.

Out of survey respondents who shared their gender (2% declined the question), response rates for males and female delegates were both around 20%, but more than half of the transgender delegates returned the survey.

Survey responsiveness declined with age, with a far higher proportion of younger respondents answering the survey than those aged over-50.

Most respondents were from civil society. Academics, hospital staff, government, private sector and multilateral agencies had response rates below 20%.

<table>
<thead>
<tr>
<th>20 countries with more than 100 delegates</th>
<th>Survey response rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tanzania</td>
<td>34%</td>
</tr>
<tr>
<td>Nigeria</td>
<td>31%</td>
</tr>
<tr>
<td>Malawi</td>
<td>29%</td>
</tr>
<tr>
<td>Australia</td>
<td>27%</td>
</tr>
<tr>
<td>Uganda and Zimbabwe</td>
<td>26%</td>
</tr>
<tr>
<td>Kenya and France</td>
<td>25%</td>
</tr>
<tr>
<td>Zambia and Swaziland</td>
<td>24%</td>
</tr>
<tr>
<td>India</td>
<td>21%</td>
</tr>
<tr>
<td>Botswana</td>
<td>20%</td>
</tr>
<tr>
<td>Canada, Thailand, Netherlands</td>
<td>19%</td>
</tr>
<tr>
<td>Switzerland</td>
<td>16%</td>
</tr>
<tr>
<td>South Africa and China</td>
<td>14%</td>
</tr>
<tr>
<td>USA</td>
<td>12%</td>
</tr>
<tr>
<td>UK</td>
<td>11%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age group</th>
<th>Survey response rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>16 to 25 years</td>
<td>27%</td>
</tr>
<tr>
<td>27 to 40 years</td>
<td>23%</td>
</tr>
<tr>
<td>41 to 50 years</td>
<td>20%</td>
</tr>
<tr>
<td>Above 50 years</td>
<td>19%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Respondent’s affiliation</th>
<th>Survey response rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community-based organizations</td>
<td>67%</td>
</tr>
<tr>
<td>People living with HIV/AIDS group/network</td>
<td>35%</td>
</tr>
<tr>
<td>Non-governmental organization</td>
<td>30%</td>
</tr>
<tr>
<td>Faith-based organization</td>
<td>22%</td>
</tr>
</tbody>
</table>

Media and social media
Secondary analysis of the work of the seven-person IAS media team, which monitored daily coverage during conference week, was conducted. Analysts also used Cision, Social Flow and Radian 6.

Key informant interviews
Eight members of the conference organizing committee were interviewed in depth about their impressions, inspirations and recommendations after AIDS 2016.
PEOPLE LIVING WITH HIV ARE...

Positive Leaders
FINDINGS

DID WE REINVIGORATE THE RESPONSE?

Yes. Across surveyed delegates, there was strong consensus that AIDS 2016 was successful in reinvigorating the global HIV response. The conference provided an opportunity and a platform from which to take stock of achievements to date, the gap between need and response, and the challenges that remain. It enabled a global recommitment to strengthening the response.

“Many people were beginning to think that that HIV was no longer a problem, and that we shouldn’t be worried about new infections and mortality, because people thought that treatment was a solution.”

WHAT DID PEOPLE GET OUT OF IT?

The overwhelming majority of respondents were happy with their conference experience, with 48% saying that the conference met their expectations well, and an additional 28% reporting that AIDS 2016 had exceeded their expectations.

“I have been to ALL conferences since 1989 and this one was the one that most had relevance to my own work, where I made the most concrete networking links, and where I could see progress in prevention and treatment and a perspective for ending the epidemic compared to the previous conference.”

New research and latest science

“Strategies for attaining the 90-90-90 targets were well elucidated, with good examples of progress from resource limited countries.”

Respondents were pleased with the amount, quality, variety, freshness of the science presented at AIDS 2016. They felt that speakers were authoritative and experienced, lending high-quality opportunity for learning and exchange. New perspectives and learning on the 90-90-90 targets was a repeated theme in survey responses, with delegates appreciating the opportunity to exchange practical strategies with other countries. Respondents noted research findings on adolescent girls and their risk for HIV transmission, gender equality, and human rights – topics echoing the conference theme of Access Equity Rights Now.

“As an academic, I usually do not attend the AIDS conference for the scientific program, but I thought the quality of the science and the panel discussions were much better than usual.”

Survey respondents’ satisfaction with AIDS 2016

<table>
<thead>
<tr>
<th>Satisfaction Level</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Met expectations well</td>
<td>48%</td>
</tr>
<tr>
<td>Exceeded expectations</td>
<td>28%</td>
</tr>
<tr>
<td>It was acceptable</td>
<td>16%</td>
</tr>
<tr>
<td>A little disappointed</td>
<td>6%</td>
</tr>
<tr>
<td>Very disappointed</td>
<td>2%</td>
</tr>
</tbody>
</table>
Diversity

“The conference was so diverse, more so than any conference in the world I attended before.”

The conference demographics, as presented on page 11, show the vast range of different conference participants interacting at AIDS 2016. According to survey respondents, this diversity was one of the most rewarding and enlightening aspects of the conference. Cultural, gender/sexuality, geographic and professional diversity were exceptional. The strong African presence and the prominence of key population members created a wealth of opportunity for interaction and sharing.

“I felt I was a part of something big and very much inspired to do my work in Parliament to make laws to protect our girls and key populations.”

Paradigm shifts and epiphanies
In addition to expanding participants’ understanding and worldview of the state of the epidemic, for many respondents, the conference was profound in terms of a broader grasp of who key populations are, what the focus on priority groups means, and where their own countries and roles fit into this.

“To spend time with gay men, ‘out’ HIV-positive people, trans men and women, queer activists, alongside community-based peers was unbelievable and inspiring. I was at a moment in my life, after 17 years of living with this virus and 10 working in the field, that I thought I would leave the work behind ... The conference inspired me to reconsider and to look more closely at how I continue to serve the HIV-positive community now. I am hugely grateful.”

The scholarship programme
More scholarships were awarded in 2016 than any previous year (940 from 105 countries at AIDS 2016, vs. 460 from 128 countries at AIDS 2014), doubling the previous scholarship investment. For AIDS 2016 these were selected from 9,475 scholarship applications for 2016, compared with 7,203 scholarship applications in 2014.

“You ... helped me to be an even better advocate”

Scholarships increased diversity and allowed as many people...
as possible to attend, who would otherwise not have been able to.

For many scholarship recipients, AIDS 2016 was their first major conference, or their first time travelling outside their own country. The conference was a unique learning opportunity and exposed scholarship recipients to experts from all sectors of the HIV response.

“The lessons learned will definitely change how we work in the Pacific Islands.”

The scholarship programme also enhanced the conference, by expanding the number of voices that were heard, enabling activists to attend, and targeted facilitation of the attendance of young presenters and delegates from under-represented regions.

Although by far the greatest number of scholarships went to delegates from Africa, the highest proportion of supported delegates came from Eastern Europe and Central Asia (33%), with high levels of support to the other under-represented regions of the Middle East and North Africa, Central and South America, and South and South-East Asia.

Scholarship recipients had a similar gender distribution to the conference as a whole, with slightly more women than men. Transgender scholarship recipients made up 3% of the scholarship allocation, with almost a quarter of all transgender delegates being scholarship recipients.

“I have personally taken it as a challenge to disseminate the new knowledge gained by hosting a brown bag for my team here at MSH and sharing my experiences at the various technical working group meetings I hold membership in Nigeria.”

In addition to transgender delegates, scholarship recipients departed from the overall delegation demographic in terms of age and professional affiliation. Youth, from ages 16-25 years and 26-35 years, were well-represented in the scholarship pool, as were PLHIV, people from key population networks, and academia.

The preferences for scholarship recipients with these characteristics align with the organizing committee’s commitment to engaging priority groups and key populations, while attracting strong science from a robust pool of academics.

“I was planning to network, but never knew I was going to a forum where I will meet experts that can answer any question I may have. The conference was so big so much ... I met a thousand other people who came on scholarship. I came back with more than 1200 business cards and it’s helping me.”

Scholarship recipients were positive that they would be taking this experience forward into their work and lives.

“It’s the first international conference and also my first time of being aboard. First of all I’m truly grateful for the scholarship program that brought me to Durban, and the scientific team for picking my abstracts for presentation. I learned a lot about HIV/AIDS prevention and treatment, as well as rights advocacy and what and how we can do to achieve our 90-90-90 goals. It provided me so much cutting-edge info and a chance to meet new friends.”

Scholarship recipient affiliation distribution in broad bars, compared with conference delegates in the narrow bars

<table>
<thead>
<tr>
<th>Civil society</th>
<th>Government/Intergov funders</th>
<th>Media</th>
<th>Hospital clinic</th>
</tr>
</thead>
<tbody>
<tr>
<td>52%</td>
<td>29%</td>
<td>7%</td>
<td>4%</td>
</tr>
<tr>
<td>4%</td>
<td>4%</td>
<td>3%</td>
<td></td>
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</tbody>
</table>
Focus on key populations
Survey respondents were asked whether they identified themselves as a member of a key population, selecting as many populations as applied.

Out of 2,311 delegates who responded to the question, 1,423 (62%) did not see themselves as a member of a key population. The other 38% identified with one or more key populations.

Although not a representative sample, the numbers of people in key populations at AIDS 2016 was clearly substantial.

AIDS 2016 advocated strongly for key populations. The conference programme included sessions on MSM, transgender people, sex workers, prisoners, and PWID.

Activism, campaigns and marches
Epitomized by the Global Village, community from across the world, especially Southern Africa, was observed to be a powerful force at AIDS 2016. Survey respondents commented that this conveyed a sense of reality and collective effort that inspired them and stirred a fresh urgency to manage efforts against HIV.

“I am a person who comes from a grassroots organization - a youth full of spirit to learn new things. The conference really gave me a wider perspective and bigger spirit to enhance my contribution.”

Daily advocacy and activism in plenary sessions, the Global Village, communal spaces within the venue and in the streets surrounding the conference center were a daily feature of AIDS 2016. Voices for rights were described by delegates as “eye opening” and “inspiring”. Various communities and civil society organizations ensured sustained, visible and imaginative messaging, emerging from a strong existing tradition of activism in the South African HIV response.

“The conference was dynamic, engaging and - as always - an inspirational event which enabled me to … feel part of a global movement for change.”

Formal marches took placards and chanting to the streets, for messages ranging from the needs of grandmothers affected by HIV, to health workers, to sex workers and young women. Inside the conference center and in the plenary hall in particular, activism directed to policy makers and leaders highlighted the most compelling needs and issues for their attention. Messaging for policy and rights infused the Global Village experience, where activism flowed through virtually every effort.

“I didn’t expect that being around fellow activist would be a self-care experience in itself. The activism was great, it is shaking my soul giving me breath to continue my technical and research work.”
Return of the International AIDS Conference to Africa

“The energy from having the conference in South Africa – great community engagement, and a developing country reality.”

AIDS 2016 was held in a very different context to the previous International AIDS Conference in 2000. Respondents felt that the Southern African setting, in the heart of the world’s largest epidemic and response, with millions of people living with HIV in often resource constrained settings, added a dimension of reality and collective energy. More than half of the delegates at AIDS 2016 were from Sub-Saharan Africa (56%) compared with 19 % at AIDS 2014.

“I gained a better understanding of transgender people and MSM, who the government of my country is against. I gained an overview of how other African countries like South Africa have been able to put 3 million people on treatment.”

Partnerships, Collaborations and Inspiring New Connections

“What I didn’t expect was the great friendships that I have made, and the substantial personal and motivational inspirations and empowerments, especially as a person living with HIV.”

Forming new partnerships was seen as a key conference outcome, with 52% of respondents reporting that they networked “a lot” and a further 30% reporting that they networked and built “some” relationships. Respondents felt that the connections they made would have a lasting impact, and create opportunities to share best practices and lessons learned at local, national and international levels. One respondent noted that these kinds of connections are critical to opening up new resource mobilization avenues for grass root key populations, especially with regards to lobbying local governments for increased resource allocation.

“Outside of my field as a public health practitioner and biomedical scientist, I knew, but understood very little about how diverse the response was ... to know that faith-based organizations were equal players helped me realize that this was more than just ‘talk’ but a concerted effort to end AIDS. My expectations were more than exceeded. I left fired up to make my contribution to the response.”
WILL IT MAKE A DIFFERENCE?

The conference was inspiring and motivating. Survey respondents and key informants spoke about taking their learning, perspectives and insights back to their work, homes and communities. Beyond their own immediate work experience, 82% of respondents were aware of previous International AIDS Conferences having global to local influence on the AIDS response, and on policy and funding.

“The organization that deals with adolescents and HIV in South Africa will definitely help me to form adolescents clubs in my country.”

Survey respondents who had been to AIDS 2014 were asked whether attendance at the conference in Melbourne had influenced their work lives since. Fifty-eight percent stated that their work had been affected profoundly or a lot, and very few felt that AIDS 2014 had had minimal impact on their lives.

“I met Humana People to People and we will collaborate - they will come and do HIV testing at household level.”

Respondents who attended previous conferences were asked whether they had expanded their professional network using the connections they made at previous conferences. Sixty percent now either work together through conference connections, or continue to share professional relationships.

“I’ve met and established links with companies in the diagnostic sector specialized in point of care products ideal for my company’s focus in delivering quality services to our clients.”

Asked about the level of networking they had achieved, and the depth of commitment towards ongoing collaborations at AIDS 2016, 47% of respondents said that they were serious about future collaboration, with 13% already making plans together.

“We plan to harmonize our approach and language around improving patient centre care models inside MSF and with key global partners.”
Financing the response

“Health financing was discussed in the AIDS conference and it appeared to be the backbone of the struggle.”

The replenishment of the Global Fund was a repeated point for discussion and activism at AIDS 2016.

“Some policy makers and leaders feel that the epidemic is under control and there are other more pressing challenges. Others feel like there is enough money for public health already. The meeting did as good a job as it could to highlight attention on the existing epidemic and need for continued vigilance.”

At the time of writing the report, the Global Fund had mobilized US$12.9 billion for the Fifth Replenishment. The conference impact report – to be completed one year after AIDS 2016 – will monitor these outcomes, and elaborate on the conditions that have enabled or obstructed successful financial movement related to AIDS 2016.

“I learned about dealing with the funding transition and looking at other ways of partnerships and financing the response.”

CONCLUSIONS: DID AIDS 2016 FULFILL ITS OBJECTIVES?

AIDS 2016 was successful in fulfilling its stated objectives.

OBJECTIVE 1: Bringing together the world’s experts to advance knowledge about HIV, present new research findings, and promote and enhance scientific and community collaborations around the world.

AIDS 2016 undoubtedly succeeded in meeting this objective: 89% of respondents expressed the view that the world’s experts had been brought together; 60% deemed that this had been done with excellence; and many respondents expressed how accessible leaders and experts were for connection and conversation. The conference provided a well-balanced programme of: basic and translational science; clinical research; epidemiological and implementation updates; policy, law and human rights programming evidence; and operational research findings to inform the way the HIV response structures and interacts with systems. It brought together the right people at the right time. Attending experts felt empowered to do their jobs better based on their interactions with each other.

“Scientists I only knew from books or literature were there.”

OBJECTIVE 2: Promoting HIV responses that are supported by and tailored to the needs of at risk populations or people living with HIV, including women and girls, men who have sex with men, transgender people, sex workers, young people, and people who inject drugs.

Respondents overwhelmingly affirmed that this objective had been met, with 86% stating that the conference would enhance responses to the needs of key populations. The increased understanding and perspectives expressed by delegates who were able to have significant interactions with individuals from key populations for the first time at AIDS 2016 strongly reinforce the notion that the conference achieved both direct promotion of at risk populations and also indirect promotion through exposure to different perspectives. Successful completion of this objective is further confirmed by several political commitments. These include the UNAIDS 10 FastTrack Commitments to End AIDS, released on 15 August 2016. It affirms commitment to reaching 90-90-90 with explicit inclusion of sex workers, MSM, transgender people, people who inject drugs, and prisoners. This avoids key populations becoming the 10-10-10 left behind.
OBJECTIVE 3: Promoting activism and community mobilization that holds leaders, industry, and government accountable and increases their commitment to an evidence-based, human rights-affirming HIV and AIDS response.

Eighty-three percent of respondents agreed that AIDS 2016 provided a good platform for activism, and 82% were optimistic that this will result in a stronger global HIV response. Some respondents noted the importance of witnessing activism to inform their own perspectives on the response and their role therein, while others felt the strong presence of fellow activists was motivating and reinvigorating. With ample actionable evidence presented as part of the main conference program, and with rights-affirming rhetoric and discussions throughout, by all standards AIDS 2016 fulfilled this objective well.

“Activism that I saw – outside – and how the politicians handled the activists in the street – has had a positive impact – they were listened to. Ours was much stronger activism than previous years.”

OBJECTIVE 4: Advancing a clear agenda for HIV in a post-2015 framework, including the cross-cutting issues of criminalization, gender-based violence, sexual and reproductive health rights, stigma and discrimination that keep people living with HIV at the centre of the HIV response.

The most prominent post-2015 framework addressed at AIDS 2016 was the 90-90-90 target framework, which has evolved as the most evidence-based goal around which the global HIV response must organize. Reference to this framework throughout the conference was strong, and cross-cutting issues were addressed frequently both in discussing how to reach 90-90-90, and in reflecting on who is likely to be left behind in the 10-10-10. The achievement of this objective is linked strongly to the positive representation of key populations and women and girls issues, which provided a context for discussing criminalization, gender-based violence, sexual and reproductive health rights, stigma and discrimination. There was less focus at AIDS 2016 on the Sustainable Development Goals, which could be considered an additional important framework in which to view these issues, though the slogan “No one left behind” was echoed throughout the conference. With 81% of respondents believing that the post-2015 agenda was advanced by AIDS 2016, this objective should be considered met.

“I was really empowered by this conference, and I am really grateful to be offered this opportunity to be amongst the world’s experts in the field of HIV/AIDS. So much information, knowledge and skills that I have gained will definitely benefit the communities back in Swaziland.”

OBJECTIVE 5: Building innovative partnerships with businesses, community, government, and science to strengthen HIV prevention and treatment efforts.

AIDS 2016 was overwhelmingly rated as a meeting in which people from different sectors and backgrounds had the opportunity to interact. Seventy-nine percent (79%) of respondents felt that engagement by government and industrial leaders was substantial. Key informants noted that the presence of key figures – such as PEPFAR Ambassador Deborah Birx, Global Fund Executive Director Mark Dybul, Bill Gates on behalf of the Gates Foundation, and Director of the National Institute of Allergies and Infectious Disease (NIAID) Anthony Fauci – as influential in catalyzing new partnerships and collaborations. Delegates themselves report holding meetings between organizations, meeting with potential funders, and forming working relationships and partnerships. However, full achievement of this objective is difficult to judge at this stage; the degree to which partnerships were or were not built as a result of AIDS 2016 is a topic to be revisited in the one-year follow-up delegate survey.

“AIDS 2016 highlighted the outstanding gaps that need to be addressed by stakeholders, to achieve the 90-90-90 targets. It also provided direction for the HIV response in the post-2015 period in order to achieve equity for all.”
• **Actively pursue research and abstracts** to fill perceived research gaps, discuss submissions with known flagship projects, and leave sufficient space for late-breaking science.

• **Engage early with Russia and neighbouring states** to attempt to build political awareness on constructive responses in advance of AIDS 2018. Simultaneously, these engagements should open avenues for stimulating research in the next two years, and ensuring that Eastern Europe offers a strong presence in the tracks of the next conference.

• **Invest in outreach and capacity strengthening for the two years** leading up to the next conference, supporting less experienced researchers and research countries or sectors to identify innovative, exciting work, and providing early mentorship.

• **Support socio-behavioural and human rights science** research areas through advocacy for research and programming. In so doing, **reflect on the structure of the abstracts for non-scientific work**. The current abstract structure is strongly oriented to formal research. While ensuring a strongly balanced programme and sufficient academic and biomedical science, there is an opportunity to adapt the approach and encourage human and social research. Narrative research, community studies or case studies and reflections, for example, are often qualitative and process driven, and not necessarily suited to formal research structure.

• **Explore opportunities** for conference organizers to work with various regional bodies to coordinate leadership at a regional level, and involve regional structures in conference participation.

• **Increase support for young people** from ages 16-25 to attend the conference through the scholarship programme.

• **Strengthen engagement of priority groups and key populations**, including people who inject drugs, migrants, and people living with disabilities.

• **Strengthen local outreach or connection for the conference**, such as the involvement of local schools. Conference organizers should redouble efforts for local outreach for future conferences.
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