

Daily E-Bulletin

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Curtain comes down on ICASA 2023

By Kuda Pembere and Michael Gwarisa

The 22nd edition of the International Conference on AIDS and STIs in Africa (ICASA) ended on Saturday with calls to step up support for communities of people living with HIV for the elimination of the pandemic by 2030 being made.

Speaking on behalf of Zimbabwe's Vice President Dr Constantine Chiwenga, Foreign Affairs and International Trade Minister Fredrick Shava said it was important to put communities at the fore in HIV responses.

"I am particularly encouraged by the emphasis placed on strengthening community engagement and involvement. Community-led responses have proven to be effective in raising awareness, reducing stigma and discrimination, and improving access to prevention and treatment services.

"Let us therefore support and amplify the voices of those most affected by HIV and AIDS, STIs and Ebola at community level, so that their experiences can shape our policies and interventions," the Vice President said.

VP Chiwenga also said multisectorial and all-inclusive approach is critical in the HIV response.

"The conference has reminded us of the importance of implementing comprehensive and evidence-based prevention strategies that prioritize vulnerable populations, including young people, sex workers and people who use drugs.

"By adopting a multi-sectorial, all-inclusive approach, we can create an enabling environment that fosters healthy behaviors and empowers individuals to take control of their sexual and reproductive health," he said.

Health and Child Care Minister Dr Douglas Mombeshora said the conference had 78 oral abstract presentations, 19 non-abstract driven sessions, 13 special sessions, 8 workshops, 32 pre-conferences, 77 satellite sessions, 27 community village sessions, and 813 abstract posters as well as nearly 480 speakers.



Foreign affairs Minister Hon Shava closes ICASA 2023



"The conference reminded us that AIDS is not over and we must remain vigilant to ensure we effectively truncate and achieve the Sustainable Development Goals by 2030 without leaving anyone behind. Spectacular as it may have been, we have to recognize that the conference is coming to its end and we must say goodbye.

"We need to make friends and connections, but still we must say goodbye. It is my fervent hope that the friendships and connections we

have learned at the 22nd edition of ICASA to edify the response to HIV, Ebola, and other epidemics," he said.

Society of AIDS in Africa (SAA) president Dr David Parirenyatwa said they will open the bid for countries to host the next ICASA conference for 2025 by March next year. He also said they will publish an international journal for this year's conference.

ICASA director Luc Bodea said there were 8 118 attendance at the conference.

"And this time around, we have noticed that at the community village, we have 6,856 participants. 275 participants. The total participants for this ICASA Zimbabwe 22nd edition is 8,118 participants. As we are talking about participation, it is very important that we should talk about the scholarship. It is important to understand that the government of Zimbabwe gives 500 scholarships to the local people scholarships in person.

"And we give 1,571 scholarships.

This year, we give a total of 1,771 scholarships. It is also important to notice that in terms of abstracts, we received 2,600 abstracts. And 2,540 was reviewed. 1,747 was rejected. "And to run this ICASA 23, we run it with 78 oral abstracts. We also run it with 115 postcards. Let me conclude, Honorable, to say that in terms of program, for the five days, we organized 182 sessions We have 546 speakers coming from around the world," he said.

SAVE approach bears fruits in fighting stigma

By Munyaradzi Doma

Part of the stigma that has been obtained in the fight against HIV over the years has been largely due to stigma coated, hence a better way of talking about the disease was devised.

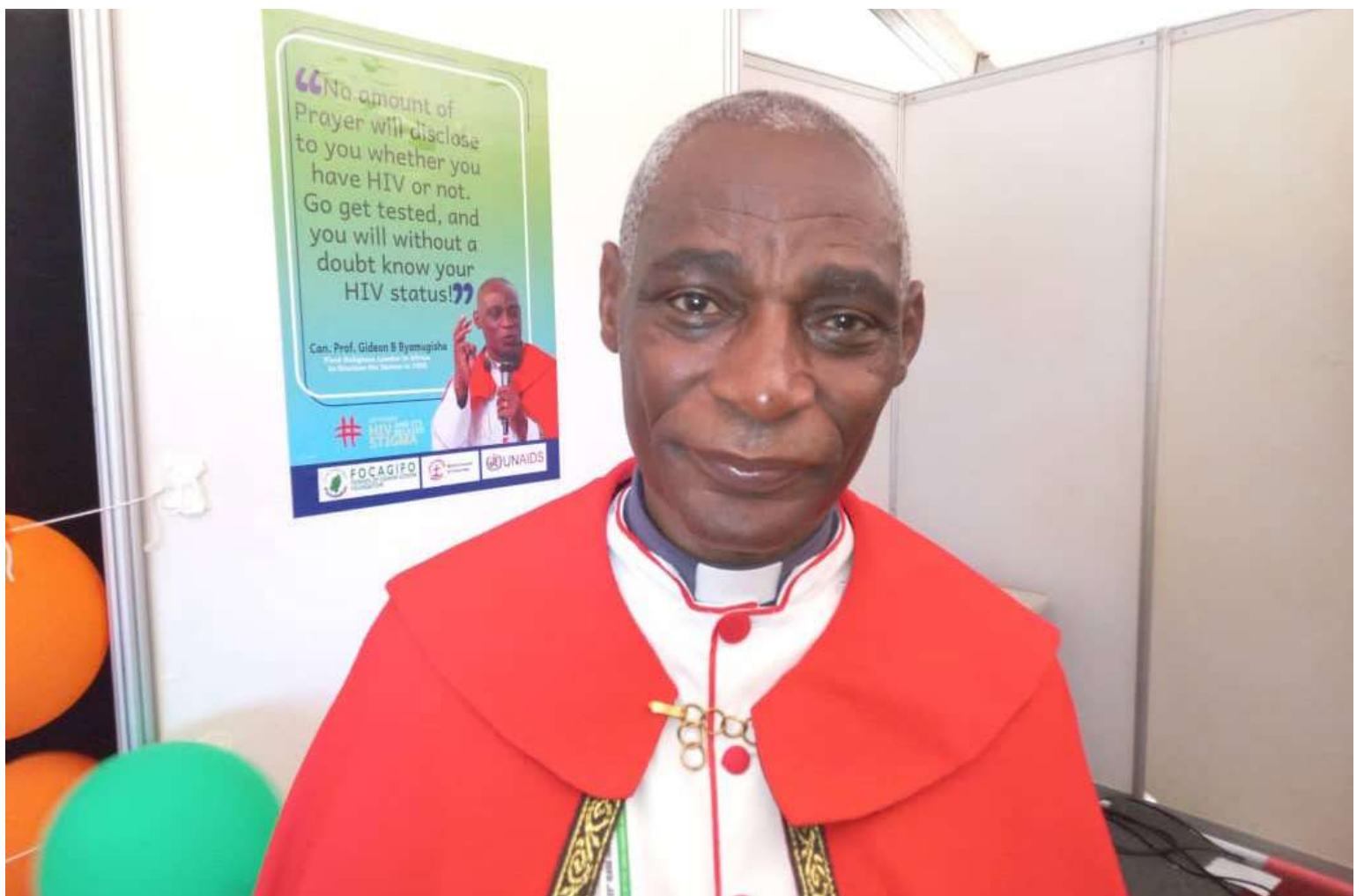
In an interview at ICASA, Reverend Canon Professor Gideon Byamugisha from Uganda, founder of Africa Network of Religious Leaders Living with or Personally Affected by HIV who is now the Patron of the International Network of Religious Leaders Living with or Affected by HIV said after noticing the stigma within some messaging, they had to come up with the SAVE approach.

"We saw stigma that was coming from the message that was being given as a prevention message; abstain; if you can't, be faithful; if you can't, use condoms.

"And then people are surprised to see a religious leader who is positive and say oh he can't abstain, he can't be faithful, so we said no no no, this is stigmatizing to abstinent people, to faithful people and people who have HIV from none sexual means, like mother to child or infected blood so we designed a new way of talking about Aids.

"It's no longer new, it is being used in 25 countries, it's called the SAVE approach.

"How do you SAVE your community from HIV, you multiply safe behaviours and practices, A; you multiply access and adherence to treatment and good food, V; you increase voluntary counselling and testing, E;



Reverend Canon Professor Gideon Byamugisha

you empower those who are vulnerable or are already positive," he said.

He further added that the SAVE approach had really helped in terms of reducing stigma as some results were coming from ICASA.

"The stigma is reducing, we have reports from this conference, people saying Oh testing is 99 (percent), others 98, others 96.

"People on treatment have increased, people who are taking ARVs well to the point they have undetectable viral load are also increasing."

INERELA is present in 25 countries and has about 40 000 members.

"We support the faith communities, faith congregations to face up stigma, interrogate it and do something

about it, eliminate it because where stigma is, people hesitate to test and when they test they hesitate to disclose and when they disclose, they disclose too late. "So governments, communities and faith communities lose out on two fronts, the infections spread which could have been prevented if someone had done this in time and we lose people early, so our work is to look at where the stigma is coming from

and then develop answers and go to faith communities for dialogue to say there is stigma coming from people thinking you die early, so how do we go about it, there is stigma coming from people thinking you will spread HIV from eating with someone who is positive, so how do we go about it," added Rev Can Prof Byamugisha.

TASQ program scales up HIV epidemic control in Zimbabwe's communities

By Michael Gwarisa

In a bid to promote access to HIV services at the community level, the Target to Accelerate and Sustain Quality Care for Epidemic Control program has mobilised partners to work directly in communities and link clients to care.

TASQ is a USAID-funded program with OPHID as the lead organisation and is being implemented in 15 districts in four provinces. The four provinces are Harare, Masvingo, Matabeleland South and Bulawayo. Speaking to HealthTimes on the side-lines of the ICASA, Clarence Mademutsa, Head of Programmes and Training at ZNNP+ said the TASQ was one of the best programs around.

"So those are the 15 districts. So the work that we do, like the title of the program suggests, we have targeted responses and we seek to accelerate the current interventions to ensure that there's epidemic control. So this program seeks to accelerate my interventions to ensure that we get to 2030 or even achieve those results before 2030," said Mademutsa.

OPHID and JFKPNEC work in the 15 districts and they offer clinical services through their secondary healthcare workers within the facilities and also community

cadres which are also seconded by OPHID and JFK and from our end as ZNNP+.

"So for OPHID, they are what we call community outreach agents, so they are involved in tracking and following up mainly with clients and the industry, making sure that they receive services including provision of HIV self-test kits. Then from our end, our goal is to also bring in the community voices so that the program hears what the community expects from the service providers, the implementing partners, from the health service providers, including JFK.

"So our role is to gather those voices and share with the clinical partners that there are issues we may be missing our target here because we do not have this A, B, C, D concern. So a typical example of cervical cancer, there are a lot of misconceptions. We notice misconceptions that are built in the community. So we share these with the clinical partners, but we also work with the community to say, no, this is misinformation. The correct information about cervical cancer is A, B, C, D.

ZNNP+'s role is to communicate with the community and also get their voices and often if they need to communicate messages around



during outreaches, they ensure it happens.

"So for us, we are happy because it's a good model where communities are being engaged. And this is what we've been pushing for oftentimes, the clinical responses don't take any compensation. The social and soft issues that affect the reserves of the provision of services.

"We have 15 districts and we hope that all 63 districts have this kind of arrangement, where the community voices are sufficiently captured and covered. We do understand there's this thing called CLM program. But it's different. It's different in that CLM comes now to be like an external auditor. But what we're saying is through this program, we can

enhance and improve the delivery of services within a program before the external assessors come in and say, okay, is this a gap and that gap?"

ICASA: To end AIDS as a public health threat, ramp up the HIV response, including paediatric treatment, and accelerate prevention for adolescent girls and key populations

By Own Correspondant

HARARE/GENEVA, 9 December 2023—Africa can end AIDS as a public threat, but to do so African governments and international partners need to ramp up their HIV responses. Actions needed include accelerating treatment for children living with HIV and prevention for adolescent girls and key populations. This was the message from UNAIDS as the 22nd International Conference on AIDS and Sexually Transmitted Infections in Africa (ICASA) drew to a close. UNAIDS is also calling on governments to support communities’ vital leadership role in the HIV response.

At ICASA, thousands of delegates, including AIDS activists, grassroots communities working to end AIDS, governments and private sector partners, key populations, doctors, scientists, donors and other international and African stakeholders came together to advance progress in the HIV response. Representatives from communities urged authorities to step up investments and policy reforms to end AIDS.

“Emerging from this conference we are clear. To end AIDS, governments and partners need to step up HIV prevention efforts to reach children, young women, girls and key populations. And they need to ensure that every person living with HIV has access to treatment, both current antiretroviral treatments and new longer-lasting injectable medicines, to live long and healthy lives,” said Winnie Byanyima, Executive Director of UNAIDS. “Collectively we are calling for health justice and equality for all people, including people living with and affected by HIV. Pharmaceutical companies need to put people first over profits by making sure that treatment is affordable and easily accessible.”

Accelerate paediatric treatment and prevention for young women and adolescent girls to end AIDS

While progress has been made in ensuring that many people around the world have access to antiretroviral treatment, ensuring that they lead long and healthy lives – too many people are still not accessing treatment. HIV prevention services are also lacking particularly for young women and adolescent girls.

While three million children have been protected from HIV since 2000 by ensuring adherence to antiretroviral treatment for mothers, still there were 110 000 new infections among children (aged 0-14 years) in Africa in 2022. Botswana has shown the way forward by achieving a milestone in the pathway towards eliminating vertical HIV transmission. However, the world is still failing children. In Africa only 55% of children living with HIV are accessing antiretroviral therapy, compared with 83% of adults living with HIV in Africa.

Gender inequalities continue to drive new infections in Africa. Among young people (aged 15-24) 77% of the new infections in that age group (15-24) are among young women and 23% among young men.

“AIDS is an injustice of inequalities. If you look at people who are not receiving treatment and people who are dying of the disease, you will see how inequalities are obstructing their access to prevention and lifesaving treatment to be able to live longer and healthy lives,” said Ms Winnie Byanyima. “We can end AIDS by redoubling our efforts to fight the pandemic, including by reach-



ing people who are currently not accessing treatment and ensuring that all people who need access to HIV services, including key populations, have it.”

Let Communities Lead

In its World AIDS Day report Let Communities Lead, UNAIDS demonstrated that where communities are at the forefront of the AIDS response, countries were making significant progress in the fight against the disease. The report shows that AIDS can be ended as a public health

threat by 2030 if communities on the frontlines get the full support they need from governments and donors, including political and financial backing.

During the conference, communities called for recognition of the important work that they do. They called for the removal of obstructive laws which have criminalized key populations, including LGBTQI people, people who inject drugs, and sex workers. Criminalizing key populations prevents them from accessing HIV services, putting the

fight against the epidemic at risk.

Accelerate innovation, science and increase political and financial support to end AIDS

Delegates attending the conference called for accelerated innovation to quickly turn the tide against AIDS. They called for the speedy rollout of long-acting treatment – including injectable cabotegravir which prevents transmission of the virus.

Non-governmental organizations working to end AIDS often have to

operate with insufficient budgets and little political or no political support, limiting their full potential to do their work, including providing life-saving services. Governments need to increase political and financial support, especially for community-led responses and civil society organizations working to end AIDS. Authorities need also to guarantee safe operating environments for community-led organizations by removing harmful laws which criminalize key populations.

UNAIDS Executive Director, Ms Winnie Byanyima talks to exhibitors at the ICASA



Zim research on ART differentiated service delivery model research wins ICASA award

By Kuda Pembere

Dr Cloreta Gwanzura, a government medical doctor working with the National HIV Program, Care and Treatment was conferred an award for the best oral presentation for the ICASA track E which focused on innovations and research settings.

In an interview, Dr Gwanzura said her research was focusing on monitoring and evaluation systems for differentiated service delivery for ART in Zimbabwe which are models Zimbabwe use to give people living with HIV their medication.

These models have been effective in improving HIV treatment coverage in the country.

“So when we started, didn't have a system of monitoring how we were doing. So we then came up with a system that would also allow adaptation of national systems to be able to do that at a national level. So, that is the gist of my presentation,” she said.

Presenting her first international research, Dr Gwanzura said it came as a surprise to win the award.

“Receiving this award, it came as a surprise because you know when you're just submitting your working hour, let's see if uh other people consider this important enough, but you also want to share so that you learn. “So it was a surprise, but it was also



Dr Cloreta Gwanzura

a happy surprise because it's an acknowledgement of what we've done. It was a lot of work trying to make sure that we have data that can be used for decision-making. So having that acknowledged is an honor, not just for me, but also for the team. You saw the big team, everyone is excited because we're working together as a team,” Dr Gwanzura said.

She said this award comes as a

motivation to present more papers at international fora.

“So that is really exciting and it's an honor and we're happy that our work could be acknowledged on a big platform like this one, like ICASA. So we're excited, we're hoping to come up with more papers. Now we're also very motivated.

“We're also very motivated. AIAS, there is AIDS 2024, there are a num-

ber of other HIV focused conferences. We are now also, well I am now also more motivated to participate in the same way. We also read your first international paper.

“I have presented in other forums but they were mainly regional and everyone was expected to present but for this one, it was like the first one that we had to come up to think up a topic to look at the data ourselves and say, maybe let's put this together.

So, it was like the first time that I to ICASA and boom, award,” Dr Gwanzura said.

Luc Bodea, ICASA Director said, “We reviewed 2 530 abstracts this year. And also want to inform you that 1 647 have been rejected. We should really thank all the reviewers. Presented here, were 78 abstracts.”

Protect your youths online, African Governments told

By Kuda Pembere

African governments have been urged to come up with laws and regulations that guarantee the security of youth while using the internet and social media platforms.

Speaking at the ICASA Conference, Mr Alan Maleche from the Kenya Legal and Ethical Issues Network on HIV, said one of the concerns raised by African youth was that of data privacy and security from health care workers alongside online platforms.

“Is there anyone else who has access to that data? And if they are, what should happen? Because many of them have not disclosed their HIV status to their friends or other people, and so they are concerned about the safety and security of their data,” he said.

While there have been reports on the European Union (EU) coming up with laws for tech giants, Mr Maleche noted the importance of African governments to regulate these companies.

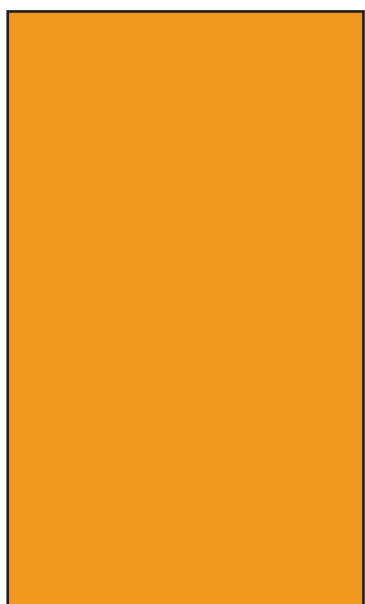
“And so that's where we are concerned around the private sector. in the private spaces that are running these apps, that are running these technologies, what steps that they put into place to ensure that the young people are protected from any forms of violation or any issues that are likely to affect them.

“ So that's safeguarding us, which is why we are holding governments accountable, UN agencies and development partners to play a leading role to provide guidance, documents to guide governments or for government centres to develop laws and

policies that will be able to guide how people interact in these spaces in a manner that is respectful to everyone. Thank you so much,” he said.

Ms Maria Malomalo, the senior international research manager at Restless Development Zimbabwe said it was important to engage youths in research instead of just researching about them.

“So, our thinking is that you know, oftentimes we think young people are not able to conduct and that they cannot be engaged in research processes, but they are very key in terms of collecting the insights which matter most to them, and often peers speak to peers, and it's one thing that most institutions don't think about. So we need to engage young people whenever we are conducting our research so that whatever insights come from that can influence programming and can also influence advocacy processes,” she said.



The HealthTimes management and staff would like to thank all our sponsors, advertisers and readers for their overwhelming support during the 22nd edition of the International Conference on AIDS and STIs in Africa (ICASA).

New WHO guidance on HIV viral suppression and scientific updates

The World Health Organization (WHO) is releasing new scientific and normative guidance on HIV at the 12th International IAS (the International AIDS Society) Conference on HIV Science.

New WHO guidance and an accompanying Lancet systematic review released today describe the role of HIV viral suppression and undetectable levels of virus in both improving individual health and halting onward HIV transmission. The guidance describes key HIV viral load thresholds and the approaches to measure levels of virus against these thresholds; for example, people living with HIV who achieve an undetectable level of virus by consistent use of antiretroviral therapy, do not transmit HIV to their sexual partner(s) and are at low risk of transmitting HIV vertically to their children. The evidence also indicates that there is negligible, or almost zero, risk of transmitting HIV when a person has a HIV viral load measurement of less than or equal to 1000 copies per mL, also commonly referred to as having a suppressed viral load.

Antiretroviral therapy continues to transform the lives of people living with HIV. People living with HIV who are diagnosed and treated early, and take their medication as prescribed, can expect to have the same health and life expectancy as their HIV-negative counterparts.

“For more than 20 years, countries all over the world have relied on WHO’s evidence-based guidelines to prevent, test for and treat HIV infection,” said Dr Tedros Adhanom Ghebreyesus, WHO Director-General. “The new guidelines we are publishing today will help countries to use powerful tools have the potential to transform the lives of millions of people living with or at risk of HIV.”

At the end of 2022, 29.8 million of the 39 million people living with HIV were taking antiretroviral treatment (which means 76% of all people living with HIV) with almost three-quarters of them (71%) living with suppressed HIV. This means that for those virally suppressed their health is well protected and they are not at risk of transmitting HIV to other people. While this is a very positive progress for adults living with HIV, viral load suppression in children living with HIV is only 46% - a reality that needs urgent attention.

Here is an overview of other key scientific and normative updates being released by WHO at IAS 2023 conference:

HIV and mpox

An analysis of global surveillance data reported to WHO during the multi-country outbreak of mpox, identified that among more than 82 000 mpox cases, around 32 000 cases had information on HIV status. Among those, 52% were living with HIV, most being men who have sex with men (MSM); and more than 80% reported sex as the most probable route of getting infected with mpox.

Among 16 000 people diagnosed with mpox and living with HIV, around one quarter (25%) had advanced HIV disease or immunosuppression – leading to an increased risk of hospitalization and death. People living with HIV who were taking HIV treatment and with good immunity had similar hospitalization and death outcomes as those who were HIV negative.

In the light of these findings, WHO recommends countries integrate



mpox detection, prevention, and care with existing and innovative HIV and sexually transmitted infection prevention and control programmes.

To understand how to better prepare for and respond to future increases in mpox transmission, WHO led a rapid electronic survey in May 2023 to assess community experiences of the 2022-2023 mpox outbreak in Europe and the Americas.

More than 24 000 people participated in the survey which focused on men who have sex with men, and trans and gender-diverse people, with 16 875 eligible individuals completing the survey. Almost 51% changed their sexual behaviour (such as reducing the number of sexual partners), and 35% had maintained these changes one year later. Findings from this survey provide valuable insights into the experiences and needs of affected communities and emphasize the importance of increasing access to mpox vaccination and diagnostics globally.

HIV and COVID-19

An updated analysis from WHO global clinical platform for COVID-19 up through May 2023 revealed a persistent high risk of death in people living with HIV hospitalized for COVID-19 across pre-Delta,

Delta and Omicron variant waves, with an overall in-hospital mortality rate of 20%-24%. For people without HIV, the risk of death fell during the Omicron variant wave by 53%—55% compared to pre-Delta and Delta variant waves; but for people living with HIV, the percentage decline in mortality during the Omicron wave period compared to the other waves was modest (16%-19%). This difference resulted in a 142 times increased risk of death among people living with HIV when compared with people without HIV during the Omicron wave period.

Risk factors for in-hospital death that were common across all variant waves of the pandemic were low CD4 count (less than 200 cells per m3), and severe or critical COVID-19 illness at hospital admission.

“Uncontrolled HIV remains a risk factor for poor outcomes and death in the mpox outbreak and COVID-19 pandemic”, said Dr Meg Doherty, Director of WHO’s Global HIV, Hepatitis and Sexually Transmitted Infections Programmes. “We must ensure the integration of HIV considerations in pandemic preparedness and response. Protecting people living with HIV from future pandemics is vital and reinforces the need to ensure access to HIV testing and treatment and preventive vaccines for

mpox and COVID-19 to save lives; community-led responses that work for HIV will also be beneficial for addressing future pandemics.” Optimizing HIV testing services through expanded testing options and simplified service delivery

With new recommendations on HIV testing, WHO is calling on countries to expand use of HIV self-testing and promote testing through sexual and social networks to increase testing coverage and strengthen uptake of HIV prevention and treatment services in high-burden settings and in regions with the greatest gaps in testing coverage.

The recommendation comes at a pivotal time, where self-care and self-testing are increasingly being recognized as ways to increase access, efficiency, effectiveness and acceptability of health care across many different disease areas, including HIV.

Primary health care and HIV

A new policy framework on primary health care (PHC) and HIV will help decision-makers optimize work and collaboration underway to advance primary health care and disease-specific responses, including HIV. In the second year of implementation, the Global Health Sector Strate-

gies on HIV, viral hepatitis and sexually transmitted infections for 2022-2030 actively advocate for synergies within the framework of universal health coverage and primary health care.

“Ending AIDS is impossible without optimizing opportunities across and within health systems, including with communities and in the context of primary health care”, said Dr Jérôme Salomon, WHO Assistant Director-General, Universal Health Coverage, Communicable and Noncommunicable Diseases.

This latest research and guidance are being presented at a time when progress towards ending the global AIDS epidemic has lagged, after the COVID-19 pandemic; but the response is rapidly catching up, with some countries now charting a path to end AIDS, including Australia, Botswana, Eswatini, Rwanda, United Republic of Tanzania, and Zimbabwe and 16 other countries that are close to reaching the 95-95-95 global targets, which aim for 95% of people living with HIV knowing their status, 95% of those diagnosed receiving ART and 95% of those on treatment having suppressed viral loads.

Unlocking a real cure for HIV: Viral shock and kill therapy

doherty.edu

Ever since the Human Immunodeficiency Virus (HIV) was first identified in the early 1980s, researchers have been searching in vain for a cure. While antiretroviral therapy (ART) has helped millions live healthy lives with the infection, HIV and AIDS burden health care systems and people continue to suffer from social stigma. Is a cure on the horizon?

Back in 2011, curing people of Human Immunodeficiency Virus seemed a long shot. HIV is a retrovirus - it integrates its own DNA into the DNA of human cells and sometimes goes dormant, hiding out from the immune system and the medicines researchers have developed to kill it.

Youry Kim was still an undergraduate studying biomedical science at Monash University at the time, when a series of lectures by Sharon Lewin, director of the Peter Doherty Institute for Infection and Immunity in Melbourne, Australia, piqued her interest in the sly tactics that HIV uses to thwart the human immune system.

When Lewin offered Kim the opportunity to do an honors project in her lab studying latent HIV, Kim jumped at the chance. The project led to a PhD under Lewin's tutelage.

Today Kim is a post-doc in Lewin's lab, focused on finding drugs that can eliminate latent HIV from human cells so people living with HIV are not reliant on antiretroviral therapy (ART) for the rest of their lives.

ART revolutionized HIV and AIDS treatment when it first became available in the mid-1990s, but HIV is still a major issue globally. The therapy's powerful ability to suppress viral replication, and thereby enable the immune system to recover, gave hope that at the very least, the infection could be managed long-term. But ART is not a cure.

In middle-and low-income countries, up to 30% of people living with HIV have limited access to ART, says Lewin, so the number of the newly infected continues to grow. And despite the success of Antiretroviral Therapy in both treating and preventing HIV, the infection remains a public health burden.

How HIV hides from the immune system

Once the virus infects human immune cells, it uses a number of strategies to evade the immune system. For one, HIV replicates and mutates at lightning speed, making it tough for the immune system to adapt quickly enough to fight it. In addition to infecting active immune cells, the virus also infects resting immune cells, where it goes dormant and hides.

These HIV reservoirs mainly consist of a type of immune cell called resting CD4+ T cells, which behave like sleeper cells - they don't actively produce new virus nor do they trigger an immune response.

This makes it harder for the immune system and medications to detect and eliminate them and is also the reason why in as little as 2 to 3 weeks after a person stops ART, HIV levels rebound: Dormant virus becomes active again and the cycle of replication, reinfection and destruction of new CD4 cells continues.

Advances in our understanding of HIV's behavior and the availability of new technology and medicines from the cancer field have rekindled



hopes that researchers will be able to develop a functional cure for people living with HIV - one that eliminates or slashes levels of latent HIV enough so that the immune systems of people living with HIV will be able to control the virus without life-long antiretroviral medication.

A cure would not only save health care systems billions spent on life-long ART for the roughly 40 million people currently living with HIV, but it would also eliminate the social stigma that many of them suffer, says Lewin.

It would also offer a safer alternative since studies have shown that people taking ART long-term have a higher risk of many ailments that include cardiovascular, liver and kidney disease.

"This is what is driving people around the world trying to find a cure," Lewin says.

Using cancer treatments for HIV

For years, the viral craftiness of HIV had dampened hopes that a cure was even possible. But then, in 2007, came news that a bone marrow transplant cured a person with HIV. The patient, Timothy Ray Brown, was HIV positive and suffering from leukemia. The donor marrow came from a person who was naturally resistant to HIV infection. Brown became the first person known to be cured of HIV - there were no detectable levels of virus in his blood.

While a bone marrow transplant for people living with HIV was never considered a desirable or even practical cure because of the health risks

from the procedure and the expense, Brown's case showed that a cure was possible.

Then came another unexpected boon to the field: Targeted cancer treatment. About a decade ago, a class of new cancer drugs became available that blocked cancer's ability to "hide" from the immune system. The advance got HIV researchers thinking about whether they might use the same approach to target latent HIV. Although cancer is a distinct disease, researchers discovered that both cancer and HIV share certain behaviors in common, "which is why a lot of these cancer drugs have been repurposed for HIV," says Kim.

Mutations in cancerous cells, for example, are thought to alter the structure of chromatin - material that forms chromosomes - in cancer cells, making it easier for them to proliferate. The ability of HIV to integrate into host cell DNA, researchers think, is also influenced by how chromatin is organized. In the cancer field, there are many drugs that work by loosening chromatin to make it more accessible to cellular machinery to initiate transcription, says Kim, thereby tamping down the cell's ability to replicate. Researchers theorized that these same cancer drugs might also force cells infected with latent HIV to initiate transcription of viral DNA, making them "visible" to the immune system.

However, while the approach could trigger latent HIV to replicate, it didn't prove powerful enough to rid the body of infected cells. Researchers then took a cue from another similarity between cancer and HIV. Cells infected with HIV have high levels

of specific proteins that may tip the cells towards survival, outliving their normal lifecycle that would include programmed cell death, or apoptosis - some cancer cells produce the same proteins and circumvent apoptosis too. Drugs that inhibit these proteins are already available to treat cancer. The "shock and kill" approach to curing HIV

In what's called the "shock and kill" approach to curing HIV, Kim is now focusing her efforts in combining a drug to trigger latent HIV to replicate, a so-called "latency-reversing" agent, with a pro-apoptotic drug to first "shock" latent HIV out of hiding and then "kill" the infected cells.

To test the approach, Kim treats blood samples from people living with HIV with the drug combination and compares them to untreated blood samples from the same person.

The challenge had been determining whether the drugs are eliminating intact virus. Not all latent HIV is "replication-competent," Kim explains.

Because the virus mutates so quickly, 90% of HIV DNA is defective and therefore can't replicate, it is unable to infect CD4 cells. With the drug combination, "you really want to be targeting replication competent intact provirus." This is made even more difficult by its scarcity. "It's only a tiny fraction," she adds. "Only around one in one thousand CD4 cells is infected with latent HIV in people taking ART and only a tiny fraction of that pool contains intact HIV DNA," she says.

Still looking for the right combination

Using a multiplex dPCR assay that Kim and her colleagues adapted to the QIAcuity system, she can now detect and quantify the fraction of intact HIV DNA in her samples. "Measuring the amount of intact virus helps us see how well our treatments are working," she adds.

Researchers working on the shock and kill approach continue to look for drug combinations that might have the desired effect.

To reduce toxicity, some researchers are also looking at delivering shock and kill drugs with more precision - packaging them into nanoparticles that hone specifically to infected cells, for example.

Scientists are also pursuing other ways to cure HIV. Among them are the "block and lock" approach that aims to permanently silence latent virus with drugs that block the transcription step in the cell's lifecycle. Over time, this would cripple HIV's ability to replicate. Still others are studying gene therapy approaches that could knock out genes that enable the virus to infect cells.

In the meantime, Kim is hoping that the positive results she is seeing in the lab will lead to clinical trials to test the efficacy of her drug combination in people living with HIV. But of course, she adds: "Any approach that leads to a cure for HIV is wanted."

Mpilo HIV Centre of Excellence doctor wins ICASA Award

By Kuda Pembere

Mpilo Hospital AIDS Healthcare Foundation (AHF) HIV Centre of Excellence medical doctor Dr Nkazimulo Tshumo's research on causes and clinical determinants of deaths among people living with HIV at her hospital earned her a Track B award for the best abstract.

Her research, an analysis of Causes and Clinical Determinants of Mortality among People Living with HIV at Mpilo Centre of Excellence in Bulawayo, in Zimbabwe won the Track B focusing on Clinical Science, Treatment and Care.

She said the majority of deaths at her facility were people on ART with another portion being on the medication "So, we did an analysis on mortality among people living with HIV for the period of January to December 2022.

"And we noted that from our analysis, maybe just to mention, we had 129 deaths during that year, and a majority of the death among people already on antiretroviral therapy, we had a portion which was contributed by people who not yet on antiretroviral therapy," Dr Tshuma said.

While people with HIV are highly susceptible to TB, in terms of deaths they ranked the top followed by cryptococcal meningitis.

"So in terms of causes of death, we noted that TB and also pneumonia, which most likely would be TB, under investigation with the top cause of mortality. This was followed by a cryptococcal meningitis. If you notice that we had quite a number of mortality which was NCDs, non-communicable disease related, and they seem to be emerging and contributing significantly towards mortality," she said.



Dr Nkazimulo Tshuma

She said in terms of mortality there were more females compared to men as they succumbed to cervical cancer.

"And among the cancers, the females were top list with cervical cancer is a cause of death. The adrenal failure we didn't really disaggregate to see whether it was treatment related or it was related to HIV or other causes.

"So in terms of mortality related to NCDs, we actually had cancers being top on the list with 11 clients who had cancer as a cause of death. And when we then look at the cancers

separately, we notice that cervical cancer was top on followed by breast cancer.

"Then the other cancers contributed a similar proportion, that is, hepatocarcinomas, gastric, oesophageal, squamous cell carcinomas, but top on the list was cervical cancer followed by breast cancer.

"Then going back to NCDs, what then follows cancers was renal failure and cerebrovascular accident strokes. So those were top on the in terms of mortality and also cardiac related

conditions. And when we looked at the cardiac related conditions, it was mainly to do with complications of hypertension. So top on the list cancers, renal failure, strokes and cardiac related with temperatures, complications of hypertension," she said.

Aside from documentation and replication of similar research at a larger scale, she recommended that said incorporating NCDs screening was important to reduce the burden of advanced HIV.

"And also, if you really look at our results you see that more than 50% of people are still dying of advanced HIV disease. So this speaks to that AIDS is not over. So it was the theme of the conference.

"So it causes and terminates, okay so the title of the research was causes and terminates of mortality among people living with HIV at Mpilo Centre of Excellence in Bulawayo over the period January to December 2022," Dr Tshuma added.

Bending the curve: What a decade-long roll-out of the anti-HIV pill can teach the world

By Mitchell Warren and Wawira Nyaga

By September, over five million people worldwide had started using PrEP (short for pre-exposure prophylaxis). This means taking medicine before sex to prevent getting infected with HIV.

At just over a million users, South Africa makes up about a fifth of the total.

These sound like big numbers — and they indeed point to progress in the fight against HIV, considering that the World Health Organisation (WHO) added these drugs to the medicine cabinet only eight years ago — but the uptake still falls well short of the UNAids global target of 10-million PrEP users by 2025. We are proud to bring you trustworthy analysis on health policy issues. Want more? Sign up to our newsletter.

And Monday's release of the results of the Human Sciences Research Council's latest HIV household survey makes achieving this goal even more urgent: condom use in South Africa is declining. Less than half of the almost 72 000 people interviewed used a condom the last time they had sex — which means getting people to use HIV prevention medication is crucially needed.

Despite people being slower to start taking these prevention pills than public health authorities had hoped, two new, longer-acting choices — a monthly vaginal ring and a two-monthly injection — have come onto the scene in the past two years.

These advances can help the world rethink HIV prevention. But can they translate into choices that actually work for people, and so help slow down new HIV infections?

We believe the answer to both questions is yes — if we put in practice the lessons learnt from rolling out oral PrEP to make it easy for people to get these new products when, where, from whom and how they need them.

Here are four lessons to guide HIV prevention programmes going forward.

1. Rethink risk

READ MORE: Over a million SAs have used the HIV prevention pill

Many early oral PrEP programmes targeted groups that were thought to have a "high risk", such as sex workers and men who have sex with men. These groups are called "key populations" as they have a bigger chance of contracting HIV and, because of social and legal stigma, often struggle to access treatment or prevention services.

While data from UNAids show that

around 70% of new HIV infections occur among key populations and their partners, someone's chance for contracting HIV can change depending on with whom and how they are having sex, for example whether a partner knows their HIV status and whether they use protection or not. To get the most out of PrEP, programmes and policies need to reframe the idea of risk so that it fits better with the lifestyle and experiences of those the medicines aim to help, instead of narrowly focusing on population groups.

Research shows that HIV prevention is not a priority for many people who have been thought of as in the high-risk group in the past, nor do they think about their chance of getting HIV in the way healthcare providers do. Instead, managing a relationship and looking after their sexual health are more important. Talking to potential PrEP users only about how the drugs can stop them from getting HIV may therefore not entice people to learn more about PrEP, start using it or use the medication in the most effective way.

For example, a programme in South Africa helps young women think about PrEP as part of a "journey" of self-empowerment, during which they consider what they want their future to look like and identify the support — including to protect their sexual health — they'll need to realise those goals.

If HIV prevention is thought of in terms of sexual health and maintaining healthy relationships, health workers can help their clients understand how using the medicines can contribute to these goals — even when the chance of getting HIV isn't their main worry. Experts say pitching PrEP as a way to reduce anxiety, take control over their sexual health, increase sexual satisfaction, pleasure and intimacy, and stay safe and healthy can help people see a better future.

2. Drive up demand

Thinking that people will use new products and interventions simply because they were developed doesn't hold. If the demand for these products doesn't exist, they won't get used.

When oral PrEP was first introduced, ideas about what people wanted or why they'd want the pills weren't considered much, and so initial uptake was low. Programmes eventually realised that to get more people on board, there'd need to be broad, sustained and user-centred efforts to create demand for the products.

Because people from key populations are often shunned by society, they may struggle to get preventive medicines or treatment for HIV. Drives tailored specifically to the needs of these groups can help to curb the spread of HIV.

KEEPING TRACK: Avac follows global PrEP use through quarterly user surveys and data from drug manufacturers and government agencies. This graphic shows what PrEP use looks like around the globe. See more at PrEPWatch.

In Kenya, for example, the Jilinde project looked at how people's behaviour drives their choices about using a product and divided the target market into specific subgroups to shape messages and strategies to the needs of teen girls and young women, female sex workers and men who have sex with men. (Jilinde is a Kiswahili word that means "protect yourself".)

The project used both mass media — for widespread awareness — and interpersonal communications — for focused outreach. Social media, community engagement and drawing on existing networks were central to their approach. Importantly, apart from only handing out the pills, the project also helped people to understand that they had to take the medicine every day to get the best results.

To get people on board, messages pitched PrEP as a general health intervention rather than targeting specific groups, and so created a more inclusive environment for PrEP uptake, free of stigma. The programme also helped journalists and media outlets.

DO NOT IGNORE A CRY FOR HELP!

Help is nearby.

It is a call or SMS or WhatsApp away.

Take action if a child near you or someone you know is suffering any of these abuses;

1. Physical abuse
2. Emotional abuse
3. Sexual abuse including rape, indecent assaults, exposure to sexual material
4. Sexual or Economic abuse and exploitation
5. Child being married off against her will or allowing a child to elope and not do anything about it
6. Threats or intimidation of any kind
7. Neglect of a child

Get in touch with any of these numbers for free assistance in Zimbabwe

Help needed	Who can help?	Coverage	Their Contact details
Counseling/emotional support	<ol style="list-style-type: none"> 1. National GBV Hotline 2. Childline 3. Ministry of women affairs 4. Department of Social Development 5. Musasa 6. Shamwari Yemwanasikana 7. Padare/Men's Forum 8. Contact 	National	<ol style="list-style-type: none"> 1. 575 2. Call 116 App 0732116116 3. District office near you 4. District office near you and Ward Child Care Workers 5. Econet 08080074 Netone 08010074 Telecel 0731080072-4 6. Toll Free 08011034 Helpline 0777851120 7. Helpline 0776027290 8. Netone 08010186/7 Whatsapp 0719528158/9
Reporting violence	<ol style="list-style-type: none"> 1. National Hotline 2. Ministry of Education 3. Childline 4. Saywhat Hotline 5. ZRP Victim Friendly Unit 6. Zimbabwe Gender Commission 7. Shamwari Yemwanasikana 8. Issues/Pane Nyaya 	national	<ol style="list-style-type: none"> 1. 575 2. 317 3. 116 or App 0732116116 4. 577 5. Econet 08080554 Netone 080101149 Telecel 0735342874 6. Toll Free 08004379 7. Toll free 08011034 Helpline 0777851120 8. Media 0773910095
Place of safety/Fostering	<ol style="list-style-type: none"> 1. Department of Social Development 2. Ministry of women affairs 3. Musasa 	National	<ol style="list-style-type: none"> 1. Any district office or CCW in your Ward 2. Any district office near you /WardCo 3. Econet 08080074 Netone 08010074 Telecel 0731080072-4

Health and Safety Measures Published For Delegates Attending ICASA 2023 In Harare

The ICASA Conference will run from 4 to 9 December, 2023 at the Harare International Conference Center (HICC). The conference will be running under the theme, “AIDS IS NOT OVER: Address inequalities, accelerate inclusion and innovation.”

Attendee health and safety measures

Here’s all you need to know for attending ICASA 2023 safely, responsibly, and confidently. Note that some guidelines are mandatory.

NB: All delegates should have their COVID-19 vaccination cards and yellow cards. Cholera vaccination cards if available will also be appreciated.

Action to take in advance

Mandatory – badging

To avoid lines, we’ll email your QR code confirmation in advance. Please have this QR code with you on your smartphone or as a printout when you arrive at the conference venue. Badge holders and lanyards will also be available at registration desks.

AT RAINBOW TOWERS HOTEL & CONFERENCE CENTER – moving around the Conference

Wearing face masks is mandatory within the Rainbow Towers Hotel & Conference Center (except for medical exemptions). Staff, Security, and ICASA 2023 Volunteers are jointly responsible for monitoring face-covering compliance and both are authorized to escort people out of the venue in the case of non-compliance.

Mandatory – Staff access to booths

Booths with exhibiting partners will have their own dedicated info desk.

Entering the Conference

Traffic flow in and out of the conference center will be carefully managed. As much as possible we will ensure one-way movement of people to minimize contact. There will be appropriate signage provided and volunteers to assist and guide delegates to their various destinations.

Exhibition hall density

Wider aisles will be added wherever possible and the conference will provide more seating areas in the exhibition hall to reduce crowding and improve traffic flow.

Mandatory – Refreshments

The conference venue will provide an extended range of individually packaged food items and will observe all applicable COVID-19, public health and safety standards.

Cleaning standards and special measures during the Conference

Mandatory- Exhibition Hall cleaning

The convention space will be cleaned regularly including electrostatic spray treatment every night in accordance with ICC standards. Exhibitors will also be required to clean meeting areas between each appointment or meeting.

Mandatory – Health and Safety monitoring

ICASA 2023 staff, volunteers, and security at the venue will continually monitor the COVID-19 and public health safety protocols across the conference to ensure compliance.

Hand Sanitizer

Hand sanitizer dispensers will be placed throughout the conference venue as well as the exhibition hall and community village. Attendees are encouraged to sanitize their hands frequently and after every meeting.

Meeting/Conference rooms

Meeting rooms will be set up in compliance with the current social distancing and room capacity guidelines in Zimbabwe to ensure you can take part safely in ICASA 2023 sessions.

Other Safety standards

The venue has implemented a vast range of health and safety measures which are not detailed on this page but can be viewed on the Rainbow Towers Hotel and Conference Centre website.

Importantly, the entire Rainbow Towers Hotel & Conference Center, including the exhibition halls, is equipped with highly efficient ventilation systems concurrent with International Conference standards.

Important notice: All delegates are required to avoid eating street food and purchasing from street hawkers. All delegates are to patronize restaurants within the conference venue.

In case of a positive COVID-19 test, the affected delegate will cater for all related costs, including quarantine.

Medical Travel Insurance

Delegates must hold valid medical travel Insurance to cover his or her duration.

