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## SCIENCE SAYANS

Telling the African science story

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In this issue

Study: Global goal to end HIV/AIDS off track

Why researchers are adopting new strategy in HIV vaccine development.

Magical cheap meal that keeps babies alive





he Media for Environment, Science, Health and Agriculture (MESHA) was founded in November 2005 in Nairobi, Kenya. The organisation provides support to science journalists covering health, development, technology, agriculture and the environment. It does so by offering training workshops, consultancies and encouraging networking through meetings and conferences among journalists, scientists and other stakeholders in Kenya.

The association emphasises journalism and communication with more focus in rural areas.

MESHA's formation was motivated by the realisation that there were many organisations and communicators in the fields of agriculture, environment, health and development, yet few within Africa would bring journalists covering these issues together, to enable better reporting and coverage in the media.

MESHA believes that in a democratic society where science must be answerable to the public, there is need to find new and innovative ways of effective mass communication about the benefits of science, and other areas of concern to the general public.

MESHA aims to ensure continuity, sustainability and consistent coverage of science and development issues as they arise.

## **SAYANSI**

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Mesha Science

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Cover Photo: Sam Anyula, health care worker with the Health Options for young men on HIV/AIDS/STI's (HOYMAS)

**Photo Credit: Courtesy** 



The rising heat: How climate change is affecting everyday life in Kenya

Pg 8



Sports emerges as new model to kick out HIV in society

<u>Pg 24</u>



Health advocate: Youth need prevention methods spiced with pleasure

Pg 31

## Why men and boys must be involved in slaying HIV

fforts to eliminate HIV have for long centred on women and girls, given their heightened vulnerability and the disproportionate impact of the epidemic on their lives. These efforts have undoubtedly achieved significant milestones in awareness, prevention, and treatment.

However, the exclusion of men and boys from targeted interventions has created critical gaps that undermine the progress made so far. To achieve the ambitious goal of ending HIV as a public health threat by 2030, it is imperative to actively involve men and boys in this battle.

Globally, statistics reveal a worrying trend: men are less likely to access HIV testing and treatment services compared to women. This reluctance often leads to late diagnoses, resulting in poorer health outcomes and higher rates of AIDS-related deaths among men.

In Kenya, these disparities are starkly visible, with cultural norms, stigma, and the absence of male-focused health campaigns serving as key barriers to care. Men's reluctance to seek health services stems from societal expectations of masculinity, which often discourage vulnerability or reliance on medical support.

Yet, men and boys hold significant potential as partners, fathers, and community influencers in the fight against HIV. When engaged effectively, they can amplify prevention and treatment efforts, creating a ripple effect across communities. Programmes such as Voluntary Medical Male Circumcision (VMMC), which has been shown to reduce the risk of HIV acquisition, and initiatives encouraging male involvement in partner testing and treatment adherence offer promising frameworks. However, these interventions must be scaled up and adapted to address diverse cultural and social contexts.

Tailored approaches are essential to address the unique challenges men and boys face. Community-based interventions, such as sports programmes and workplace health campaigns, can create non-judgmental spaces where men feel comfortable accessing information and services. Additionally, involving men in open discussions about sexual health, responsibility, and shared decision-making promotes a culture of accountability. These initiatives not only support men but also alleviate the disproportionate burden often placed on women in managing sexual health within relationships.

Another critical aspect is dismantling harmful gender norms that perpetuate risky behaviours and discourage health-seeking actions. Educational campaigns targeting men and boys should emphasise the importance of regular testing, adherence to treatment, and the role of supportive relationships in maintaining health. Such efforts can help shift societal attitudes, fostering an environment where seeking care is seen as a strength rather than a weakness.

The inclusion of men and boys in the HIV response is not merely a matter of equity—it is a strategic necessity. By bridging these gaps and ensuring that everyone, regardless of gender, has access to prevention and care, Kenya can accelerate its progress toward an HIV-free future. The time to act is now. Engaging men and boys is crucial for the health and well-being of all, ensuring no one is left behind in this critical journey.

Tailored approaches are essential to address the unique challenges men and boys face. Community-based interventions, such as sports programmes and workplace health campaigns, can create non-judgmental spaces where men feel comfortable accessing information and services.

## Working with men and boys key in HIV strategies



Jenny Gakii: Men and boys must be integrated into prevention strategies to close existing gaps in access to HIV services.

By Ann Mikia | annmikia@gmail.com

a 23-year-old, is gay. He has no feelings for women and would not even be turned on if he saw one nude. He has even tried watching pornography 'to switch the system on', but nothing happened.

Interestingly, he switches roles with his sex partners whenever they choose to be intimate. Two of Santana's sexual partners are older than him. They have well-paying jobs and offer him money since he is still in college.

Like his peers, he would like to be in a normal relationship because his parents keep asking him why he has never taken a girl home or is never seen with one. "Because of having several sexual partners, I regularly take Pre-exposure prophylaxis (PrEP) pills that reduce my risks of getting infected with HIV through sex. None of my partners is aware I have other affairs but I suspect they too could be having other sexual unions. That is why I protect myself," he says.

Lium Ndung'u (not his real name), a secondary school student also identifies as gay. This started back in boarding school and since then he is only attracted to other men. When the 20-year- old discussed his identity with his parents, they took him upcountry for some traditional ritual meant to cleanse him from the practice. A goat was slaughtered by some old wise men and he was talked to but nothing changed.

Luckily, Ndung'u has discovered about Sexual Reproductive Health Rights (SWOP) clinics that attend to men who have sex with men (MSM). From these clinics, he gets protective devices such as condoms and lubricants and is counselled regularly and tested for HIV. He picks his PrEP from those clinics too.

Ndung'u and Santana are just a few men who are having sex with men and have access to HIV protection products such as PrEP, condoms, and lubricants. However, their ability to procure these essential products highlights a privilege not shared by many MSM due to stigma, discrimination, and limited access to healthcare services tailored for them. This is why different actors in the HIV space have been urged to recognise the critical role of men and boys in the fight against the disease.

Globally, the World Health Organisation data indicates that the risk of acquiring HIV is 26 times higher among MSM compared to the general population. In Kenya, the prevalence of HIV among MSM is high compared to that in the general male population, standing at 25 per cent and 3.1 per cent respectively.

"Only a united response for all will help us achieve the 2030 vision. We need to rally everybody behind this 2030 target by reaching all with the products that suits them," says Sam Anyula, a health care worker with the Health Options for young men on HIV/AIDS/STIs (HOYMAS).

Historically, HIV initiatives have focused heavily on women and girls, leaving men underrepresented in prevention and treatment efforts.

This imbalance has prompted calls for more targeted interventions and healthcare services for men, to ensure that everyone, regardless of gender, has the support and resources needed to address HIV comprehensively.

Photo Credit: MESHA



Ms. Jenny Gakii from NSDCC sensitising community gatekeepers on end the triple threat - Sexual & gender-based violence, Adolescent pregnancies, & HIV.

Sammy Anyula: We need a united response for all in order to achieve the 2030 vision.

According to Anyula, this is why this year, Kenya celebrated the World AIDS Day under the theme Promoting the Health and Well-Being of Men and Boys to intentionally direct interest and activities in HIV towards that demographic. Already, a few specialised centres have been established to provide HIV prevention and care services tailored to the unique needs of MSM.

These facilities aim to foster inclusivity and accessibility, ensuring individuals can seek medical care and support without fear of stigma or discrimination.

One of such centres is HOYMAS that has clinics in Nairobi, Kajiado and Nyeri serving over 7,500 key populations which includes male and female sex workers, MSM, and injecting drug users among others.

According to Anyula, HOYMAS offers a safe space for men to protect themselves against sexually transmitted infections.

Only a united response for all will help us achieve the 2030 vision. We need to rally everybody behind this 2030 target by reaching all with the products that suits them.

## - Sam Anyula, health care worker with the Health Options for young men on HIV/AIDS/STIs (HOYMAS)

"We do what we call combination prevention by ensuring we give them condoms and lubricants. We also continuously counsel and test them for HIV and give them Pre- Exposure Prophylaxis (PrEP) as a preventive measure. We also give them Post Exposure Prophylaxis (PEP) for someone already exposed to a client whose status they don't know," says Anyula.

According to National Syndemic Diseases Control Council (NSDCC) there are many factors that increase the vulnerability of MSM to HIV infection including stigma and discrimination and criminalisation of same sex sexual activity in Kenya which is punishable by up to 14 years in prison. These elements make it difficult for MSM to access life-changing HIV services and other care.

Jenny Gakii, a programme officer with NSDCC says if the country wants to stop new infections and deaths from preventable opportunistic infections nobody should be left behind. Men and boys must be integrated into prevention strategies to close existing gaps in access to HIV services.

She also stresses the need for a diverse range of prevention methods because no single-product approach will not stop the epidemic but a comprehensive toolbox including condoms, PrEP, PEP, and other essential interventions tailored to varied needs.

## How PrEP is saving lives of the fisherfolk



Justus Olando, Kisumu East HIV/STI Coordinator explains a point during a media briefing alongside a science cafe organised by MESHA recently in Kisumu.

By Rolex Omondi | rolex.omondi81@gmail.com

t cockcrow, Amondi Nyanam (name withheld), 40, wakes up, prepares and heads to the lakeshore. She looks forward to a bright day despite the chilly Friday morning weather.

Nyanam heads to the busy Kamariga Beach located in one of the a sleepy village in Siaya County, western Kenya for her daily toil.

This has been her source of livelihood since her husband passed on ten years ago.

"I will not let anyone deny me of my new catch (*Jaboya*). I am the villain and the hero of my story accustomed to breakdowns and breakthroughs, I am evolving and changing," says Nyanam as she paraphrases Imelda Mugambi's poem Mirror on the Wall.

She tells this writer that she is a victim of *Puki lyier* (Discard and Choose) culture practiced by the fishermen.

Welcome to the world of Jaboya where women give in to the fishermen's sexual overtures in favour of fish along the shores of Lake Victoria.

To maintain her HIV negative status, Nyanam uses Pre-Exposure Prophylaxis (PrEP) as an HIV prevention strategy. "I have five children to take care of, selling fish is my only source of income. For my survival my body is my bargaining power to get the best fish catch of the day," she says.

Once at the lake, shortly after, three-night boats, approach the lakeshore. Nyanam's face lights up.

After two hours of negotiations, she gave us a wink and thumbs-up as a sign that her new 'bae' lover Omondi as she fondly calls him, didn't disappoint with the catch.

That is her life, giving in to frequent sexual demands of the fishermen in order to get fish, which she then sells for her livelihood. Numerous initiatives have failed to curb the vice.

To address problem, Mildmay International Kenya has rolled out HIV prevention and treatment programmes that target the fisherfolk and other vulnerable groups.

"We by support, education and training for key affected and most at-risk groups including young women, children, adolescents, and sex workers. We also offer free services (except for laboratory tests) to counties in the lake region," said Paul Oniare, Mildmay Programme Advisor.

The organisation provides funds to train and maintain a network of volunteer community health workers (CHWs).

Mr Oniare said CHWs work in collaboration with other healthcare providers to carry out home based care activities, including psychosocial support, recruitment of clients for follow-up, home visits, referrals and health education.

"Each community health workercovers 144 households where they mobilise clients and community outreaches for people with HIV/ AIDS, pregnant women for prevention of mother-to-child-transmission (PMCT) and men for PMTCT involvement," he says.

The project has increased HIV testing and counselling coverage and PrEP interventions among the fisherfolk in Siaya, Bondo, Samia and Teso South towns situated in western Kenya

According to the UNAIDS Data 2023, there are 1.4 million adults and children living with HIV in Kenya. This accounts for 3.2 percent of adults (ages 15-49) HIV prevalence and 17,000 new infections.

The report found that 1.4 million people live with HIV and 1.3 million people are on antiretroviral treatment, 52,000 children are on antiretroviral and 21,000 AIDS-related deaths occurred.

The Ministry of Health indicates in its Kenya HIV Estimates Report for 2018 that the epidemic is geographically diverse, ranging from a prevalence of 21.0 percent in Siaya County to approximately 0.1 percent in Wajir County.

The findings further revealed that counties in the lake region with the highest adult HIV prevalence in 2017 included Siaya (21.0); Homa Bay (20.7); Kisumu (16.3); Migori (13.3); and Busia (7.7).

These estimates confirm a decline in HIV prevalence among both men and women at both national and county levels.

"Our specific objective is to increase access to SRHR services to address HIV, GBV, and teenage pregnancies," Oniare emphasised.

They also work with Adolescents and Young People (AYP) aged 10-24. They support AYPLHIVs through Community Adolescent Treatment Supporters (CATS). They promote much-needed skills and talent growth through Digital Economy Inclusion.

"We undertake several social activities, career coaching and skills building. This involves risk reduction, business skills and mentorship among the fisherfolks," he said.

Their target population and reach include the town residents, surrounding communities, tertiary and social institutions, and out-of-school youth.



Paul Oniare (bespectacled), the Program Advisor, Mildmay International Kenya stresses a point during a MESHA science café held in Kisumu recently.

Similar interventions are also being spearheaded by Mission for Advocacy and Advisory Young Generation (MAAYGO).

"Our other services include HIV, STI, SGBV and other comorbidities, which we effectively provide by using our DICE and integrated government facilities," said Thomas Okal, MAAYGO Field Officer.

MAAYGO is also intergrets mental health assessment and counselling within its routine services with referral systems established for those requiring specialized support.

Dr Felix Mogaka, the Kenya Medical Research Institute (KEMRI)-RCPT Kisumu says that despite all this, most people (about 50 per cent) discontinue after being initiated into the PrEP program after one month.

We undertake several social activities, career coaching and skills building. This involves risk reduction, business skills and mentorship among the fisherfolks.

- Paul Öniare, Mildmay Programme Advisor Adongo Nyabera,\*,35, a PrEP ambassadeur from Kisumu County attributed the discontinuation to different reasons like inability to tolerate product's side effects, pill burden, preference to another prevention method, and negative clinic experience.

The concerted efforts by various stakeholders are steadily bearing fruits as people like Nyanam have become peer counsellors, and show good leadership and governance among the fisherfolks.

It emerged that some of the key lessons learnt include offering PrEP services in a youth-friendly environment has greatly improved accessibility.

To maintain treatment regimes, regular follow-ups and adherence support are vital coupled with increased sensitisation and education.

Effective outreach and packaged messages aimed at the fisherfolk, led to the recording of high numbers of PrEP usage among the disproportionately affected populations.

"To reduce stigma and promote PrEP acceptance, we need to create safe spaces for open discussions about sexual health," he noted.

To achieve 95:95:95 among the fisherfolks as per the WHO's set targets, the medical experts are calling for improved resource allocation for comprehensive PrEP programs to impact service delivery.

Photo Credit: Hugh Rutherford, CIP



Kenya's Eldoret Central Market where potatoes are trucked in from nearby farms. The country now grapples with the unforgiving realities of climate change.

## The rising heat: How climate change is affecting everyday life in Kenya

By Violet Otindo | votindo@gmail.com

n the bustling streets of Ruaka Market, Nairobi, Mama Wanjiku leans over her stall of vegetables, beads of sweat glistening on her forehead. The sun blazes relentlessly overhead, wilting both her sukuma wiki and her spirit.

"This heat is not like before," she mutters, fanning herself with a folded newspaper.

For many like Mama Wanjiku, climate change isn't a scientific abstraction—it's an uninvited guest that disrupts their lives every day.

Kenya, a nation of sweeping savannahs, rich agricultural heritage, and vibrant urban centers, now grapples with the unforgiving realities of climate change.

Rising temperatures, erratic rainfall, and prolonged droughts are reshaping the lives of farmers, traders, and families. At the heart of this crisis is a stark warning: when the environment suffers, so do we.

### The Heat is On

Climate change has turned up the heat, quite literally. Average temperatures across Kenya have climbed, turning oncetemperate regions into hotspots.

Farmers endure withering crops and thirsty livestock. City dwellers swelter under oppressive heatwaves, and street vendors like Mama Wanjiku struggle to keep their produce fresh in the unforgiving sun.

Beyond discomfort, this heat carries hidden dangers. It exacerbates dehydration, heatrelated illnesses, and even vector-borne diseases like malaria, as mosquitoes thrive in the warming climate.

## When the Ecosystem Fails

The interconnectedness of life becomes glaringly obvious in times of climate distress. Crops fail when rains come too early or too late. Livestock, weakened by heat stress, produce less milk and meat. The ripple effects reach Mama Wanjiku, who finds her usual suppliers struggling to meet demand. Prices rise, customers complain, and profits dwindle.



A vendor at Soko Mpaya Market in Central Kenya during the World Food Safety Day 2024. Health risks of rising temperatures extend beyond heat stress. Experts says prolonged exposure can lead to dehydration, heat exhaustion, and heat stroke.

This cycle highlights the One Health approach—a recognition that human health, animal well-being, and environmental stability are inextricably linked.

### **Building Resilience in the Heat**

But Kenyans are nothing if not resilient. Communities are finding ways to adapt and thrive despite the odds. "Farmers are turning to drought-resistant crops and smarter irrigation systems. Women like Mama Wanjiku are learning how to preserve their goods better, using makeshift coolers or shaded stalls" says Nicoline de Haan, Director, CGIAR GENDER Impact Platform.

The government, too, has a role to play—investing in renewable energy, reforestation, and sustainable agriculture. It's a race against time, but one that Kenya cannot afford to lose.

## A Call to Action

The rising heat is more than an inconvenience; it's a call to action. For Mama Wanjiku and countless others, the stakes are personal. The time to act is now—not just for our generation, but for the ones to come.

Farmers in Kenya face unpredictable rainfall and rising temperatures, making it harder to grow staple crops like maize and beans. These challenges trickle down to mama mbogas, who depend on farmers for their stock.

Under the sweltering Nairobi sun, Mama Wanjiku fans herself again and smiles faintly. "We'll find a way," she says, with the quiet determination that defines Kenya.

## **Health Implications of Rising Heat**

The health risks of rising temperatures extend beyond heat stress. Prolonged exposure can lead to dehydration, heat exhaustion, and heat stroke. Children, pregnant women, and the elderly are especially susceptible, as their bodies are less equipped to handle extreme heat.

Without adequate measures—like staying hydrated and finding shade—these health risks can escalate. High temperatures

also increase the spread of diseases. For example, warmer, wetter conditions allow malaria-carrying mosquitoes to thrive in previously unaffected areas, posing a growing threat to public health.

## Climate Change, Farmers, and Mama Mboga

Farmers in Kenya face unpredictable rainfall and rising temperatures, making it harder to grow staple crops like maize and beans. These challenges trickle down to mama mbogas, who depend on farmers for their stock. Scarcer, more expensive produce forces them to increase prices, burdening their customers.



An expert in plant health showcasing how quality seedlings are grown at KARI.

Bumper harvest: Addressing climate change globally requires systemic action and individuals can adopt simple measures to protect themselves.

Livestock, too, struggles under the heat. Heat stress reduces milk and meat production and makes animals more susceptible to diseases, further straining the food supply chain.

### One Health: A Holistic Solution

One Health is an approach recognising the interconnection between human, animal, and environmental health. It advocates for collaborative efforts to combat health risks that span these domains.

For instance:

**Animal Health:** Heat-stressed livestock are more prone to illness, some of which can transfer to humans. By improving veterinary care, communities can ensure healthier livestock, which translates to stable food supplies and incomes.

**Environmental Protection:** Planting trees and conserving natural resources can mitigate climate change's effects by reducing soil erosion, enhancing shade, and protecting water sources.

**Human Health Education:** Hygiene and disease prevention programmes are critical as new pests and diseases emerge. Such efforts safeguard families and ensure productivity even under challenging conditions.

## What Can Mama Wanjiku Do?

While addressing climate change globally requires systemic action, individuals like Mama Wanjiku can adopt simple measures to protect themselves:

Stay Hydrated: Carry water and drink regularly to avoid dehydration.

**Seek Shade:** Use shaded areas to cool down during peak heat hours.

**Wear Light Clothing:** Light-colored, breathable clothes help the body stay cool.

**Store Produce Wisely:** Keeping vegetables under shade or in cool spaces can slow wilting.

Fighting Climate Change Together, Combating climate change requires collective action:

**Local Efforts:** Communities can plant trees and advocate clean energy.

**Government Policies:** Sustainable farming, reforestation, and investments in renewable energy can help mitigate climate impacts.

Photo Credit: CIP

**Global Action:** Reducing emissions and supporting vulnerable nations like Kenya in adapting to climate change are essential.

## The Path Forward

For Mama Wanjiku, the rising heat is a daily challenge. But with One Health guiding community responses, resilience is possible.

Strengthening local farming practices, improving access to veterinary care, and educating communities about climate adaptation can help mitigate these impacts.

Ultimately, climate change isn't just an abstract future concern, it's a current crisis affecting everyday life. By acting now, Kenya can secure a healthier, more sustainable future for Mama Wanjiku, her family, and future generations.

## Scientists relentless search for an elusive vaccine



Francis Angira: Scientists are looking at how an assorted mix of antibodies could be a tool in long term HIV prevention and treatment.

By Rolex Omondi 1 rolex.omondi81@gmail.com

s the world marks 40 years since the first five cases of what later became known as AIDS were officially reported, the relentless search by scientists for a HIV vaccine continues amid a cycle of breakthroughs, hope and setbacks.

Francis Angira, Clinical Research Scientist at KEMRI-Centre for Global Research talks of renewed optimism in the wake of ongoing research.

"Currently there are no vaccines available to prevent HIV infections. It is constantly evolving into new strains and this makes it hard for the development of a vaccine. However, with each study, scientists and manufacturers are making a step closer to a solution," Angira told a science café organised by Media for Environment, Science, Health and Agriculture (MESHA) for students from Maseno and Masinde Muliro Science and Technology (MMUST) and journalists from Nyanza and Western.

In a presentation titled; "HIV Biomedical Research for Journalists 2024," he said there are new prevention methods and therapies which prolong the life of those living with the virus.

"In HIV prevention, we have vaccines and Long-Acting Prevention like vaginal rings, oral pills (PrEP), implants, injection and monoclonal antibodies," Angira explained.

Thirty per cent of women aged between 18-45 years who took part in two large clinical trials lowered their chances of contracting HIV when they used a vaginal ring. This flexible silicone ring which is placed intravaginally every month steadily releases the anti-HIV drug dapivirine.

The long-acting injectable Cabotegravir (Apretude) which is administered with one shot in the arm once every eight weeks was approved by Food and Drug Administration (FDA) in US to protect against HIV for one to six months.

The HPTN 084 and HPTN 083 studies show that it is safe and works better than the oral daily drug emtricitabine /tenofovir.

Angira explained that Monoclonal antibodies are lab-created immune protein systems which work to prevent HIV. Scientists are looking at how an assorted mix of antibodies could be a tool in long-term HIV prevention and treatment.

The US National Institutes of Health is also researching two HIV vaccines which are being tested among people globally.

The main goal of these vaccines is to turn on an immune response to a wide range of HIV strains.

In HIV prevention, we have vaccines and Long-Acting Prevention like vaginal rings, oral pills (PrEP), implants, injection and monoclonal antibodies.

- Francis Angira, Clinical Research Scientist at KEMRI-Centre

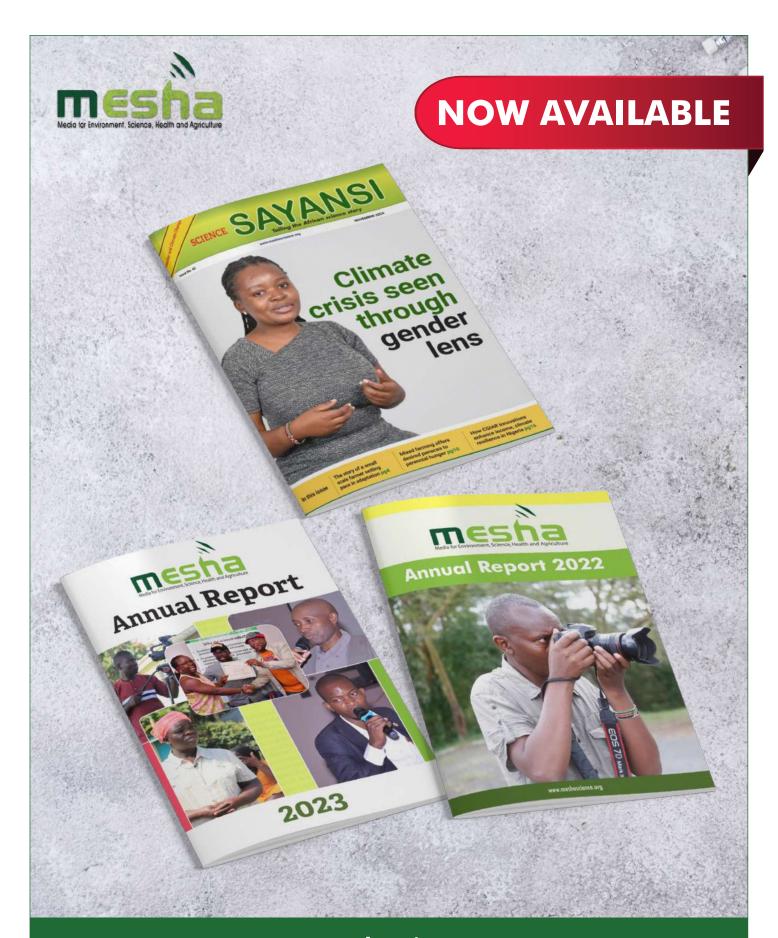


Photo Credit: Kevine Omollo



Millicent Olwanda (seated) demonstrates how to prepare the nutritious meal as UBJ programme caregivers in Musanda, Kakamega county look on.

## Magical cheap meal that keeps babies alive

By Kevin Omollo I omollokevine@gmail.com

wo years ago, Jacob Olwanda, a father from Kakamega county, had an unthinkable wish. He wished death on his three-year-old daughter. But why?

The child was emaciated and looked sickly, a situation which attracted ridicule and ugly stares from neighbours and extended family.

"Although she was eating normal food like the rest of the family, she was still thin and looked sick. Some people even mocked me that I was eating the baby's food because I was healthy and strong while my child was the opposite," recalls the father of five. At three years of age, the girl weighed nine kilos, against the recommended weight of between 12 and 18 kilos for an average child of this age.

"We suspected witchcraft and tried to seek help from all corners in vain," he recalls.

But a ray of hope shone in June this year, when Mr Olwanda discovered what was ailing his daughter- severe malnutrition.

## What is malnutrition?

According to the World Health Organisation (WHO), malnutrition refers to deficiencies or excesses in nutrient intake, imbalances of essential nutrients, or impaired nutrient utilization. This condition, caused by a combination of poor-quality diets and poor health environments, may take the form of undernutrition, overweight, and obesity. It can cause death in children if not treated properly.

According to WHO, in 2022, 149 million children under five globally were stunted, while 45 million were wasted, and 37 million were overweight.

The Kenya Demographic Health Survey (KDHS) 2022 shows that in Kenya, 18 per cent of children were stunted, 11 per cent were underweight, and five per cent experienced wasting.

The same report shows that only 22.9 per cent of children in Kakamega County accessed minimum acceptable diet, with 12 per cent of children being stunted and 6.4 per cent wasted.

That data represents the stories of children like Olwanda's and many others across the country affected by malnutrition.

When Lake Region Bulletin caught up with Mr Olwanda at his Alumako A village in Musanda, Mumias West in Kakamega county, he was all smiles. The daughter now aged five years, is on the road to recovery.

"Today, I look at my daughter and I can smile because of the change I see. Everybody is surprised at the weight gain even the people who used to laugh at us," says Olwanda with joy.

## But what has brought this positive change?

Olwanda's two children are part of a nutritional intervention programme, USAID Boreja Jamii (UBJ), by the Jaramogi Oginga Odinga University of Science and Technology (JOOUST) and the Kakamega County.

The programme is funded by United States Agency for International Development (USAID).

According to the project initiators, routine growth monitoring and promotion in the county in 2022 revealed that 992 children under five years had faltering growth, with over 40 per cent of the cases traced to Musanda Ward, Olwanda's home area.

Reproductive Health, Maternal, Newborn, Child and Adolescent Health, Nutrition and Water, Sanitation and Hygiene technical lead and a lecturer at (JOOUST) Dr Elizabeth Omondi said the situation needed urgent attention.

This revelation prompted the County and USAID Boresha Jamii project to intervene through community-led approaches, such as the Baby Friendly Community Initiative (BFCI) and Positive Deviance Hearth (PD).

While BFCI protects, promotes, and supports breastfeeding, optimal complementary feeding, and maternal nutrition, PD is a behavioural and social change approach to managing malnutrition.

"Positive deviance is a globally proven model in enhancing the capacity of communities to successfully treat and rehabilitate the malnourished children," explained Dr Omondi.



Jacob Olwanda at his kitchen garden.

Dr Omondi noted that with emergence of global pandemics, cases of malnutrition affecting children below five years are on the rise.

## Kakamega's Sh16 menu

Through the PD health project, 20 Community Health Volunteers (CHPs) from two Community Units (CUs) have so far been trained. Two Community Health Assistants supervising each of the CUs and an area Public Health Officer were also trained.

The team managed to identify 154 children from 120 households who were eligible for the programme.

The programmes aims to share knowledge and skills on the feeding and caring of infants and children in households within the same set-up.

- Rachel Kavithe, UBJ nutrition coordinator

"The guiding principles of PD are quick results, culturally acceptable, home-grown solutions, use of locally available and low-cost nutritious foods and community participation," explains Rachel Kavithe, UBJ nutrition coordinator.

"The programmes aims to share knowledge and skills on the feeding and caring of infants and children in households within the same set-up," says Ms Kavithe.

According to Ms Kavithe, the nutrients required in a meal include 600 to 800 calories, 25 to 27g of protein,  $300 \,\mu g$  RAE (retinol activity equivalent) of vitamin A, eight to ten mg of iron, three to five mg of zinc, and  $15-25 \, mg$  of vitamin C.

The menu components include grains, eggs, nuts and seeds, meat, fish, leafy vegetables, vitamin A-rich vegetables, and fruits.

In Musanda, Ms Kavithe says maize flour, rice, eggs, groundnuts, omena, pumpkin leaves, carrots, oranges, tomatoes, and onions were recommended after a market survey showed that this menu was affordable to many families. Depending on the choice of the components, this medicinal meal would cost as low as Sh16 for a single child.



Millicent Bati watches as Maureen Atieno a Community Health Promoter of Lusheya Village in Kakamega harvests some pumpkin leaves from the farm.

With just five spoons of maize flour, five pieces of omena, two pumpkin leaves, a carrot or pumpkin, and a pinch of salt, one is good to go. This would be supplemented with a healthy snack, such as a banana, avocado, or orange.

An alternative menu includes rice, an egg, pumpkin leaves, tomatoes, onions, groundnuts, and a pinch of salt.

"Some considerations include, is the food quantity in the proposed menu a realistic amount for a child to eat? Does the menu include locally available and accessible foods? Does the menu include a snack? Is the cost per serving realistic for an impoverished family?" explains Kavithe.

Once the ingredients are ready, one chooses the method of preparing the food, considering the preservation of nutrients and the type of food.

After cleaning, the food is mixed together to form a nutrient-rich meal.

The food is fried with moderate oil to provide energy and allow the absorption of fat-soluble vitamins.

Peanuts are roasted and eaten or powdered after roasting to enrich the snack.

This rich and nutritious meal is what transformed the health of Olwanda's daughter.

After religiously adhering to this menu for three months, the child's weight jumped from nine to 11 kilos.

"Today, I have my kitchen garden with crops all the time. I discovered that the solution to my daughters' problems is within my compound," Olwanda says.

Since most of the menu components are grown locally in the area, to achieve sustainability, project beneficiary households were inducted into setting up kitchen gardens within their homesteads.

## A good Health Menu should:



1. Include PD foods.



5. Include a snack



2. Be low in cost.



3. Meet nutrient, calorie, and protein requirements



4. Be small enough in volume that the child could eat another meal at home.



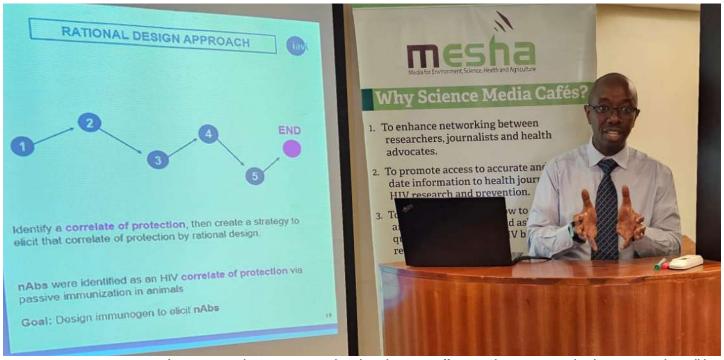
6. Based on local context and culturally acceptable.



7. Have good consistency.

## Researchers adopt new strategy in HIV vaccine development

Photo Credit: Sharon Atieno



Dr. Vincent Muturi-Kioi, Team Lead at IAVI. Over the past 30 years, there have been nine efficacy trials to attempt to develop a vaccine that will be used as a response. None has demonstrated efficacy hence failed to prevent HIV in a way that is meaningful to end the epidemic.

The variability of HIV means we need a new strategy for development of vaccine. The responses we are trying to generate needs to cover all the variants of HIV.

 Dr Vincent Kioi
 Head of HIV product development, IAVI By Sharon Atieno | sharonphoebeatieno@gmail.com

ith about 40 million people living with HIV and about 1.3 million new infections globally in 2023 alone, there is need to develop a vaccine to control the spread of the disease and eliminate it as an epidemic, a top researcher has stated.

Dr Vincent Kioi Head of HIV product development, IAVI made this statement during a Media for Environment, Science, Health and Agriculture (MESHA) café in Nairobi.

"Over the past 30 years, there have been nine efficacy trials to attempt to develop a vaccine that will be used as a response. But they have failed to demonstrate efficacy-they have failed to prevent HIV in a way that is meaningful to end the epidemic," he said.

One of these studies is MOSAICO conducted by the HIV Vaccine Trials Network (HVTN) which aimed to test a "mosaic"-based HIV vaccine in multiple countries around the world among cisgender men and transgender people who have sex with cisgender men and/or transgender people. The study had 3,900 participants across 50 trial sites in Argentina, Brazil, Italy, Mexico, Peru, Poland, Spain and the US.

In the Phase three trial, the Data and Safety Monitoring Board said the investigational vaccine was safe and well tolerated; however, it was not effective at preventing the acquisition of HIV.

A previous study conducted in sub-Saharan Africa among young women called Imbokodo also found similar results. The vaccine regimen did not provide sufficient protection against HIV.

A study carried out in 2021 conducted among cisgender men and transgender persons from the Americas, Europe and on at risk women in sub-Saharan Africa showed that it is possible to protect people from acquiring HIV by giving them infusions of bnAbs which are a special type of antibody produced by the immune system of individuals who have lived with HIV over a long period of time.

Observing that the constant change (variability) of the HIV virus is a challenge, Dr. Kioi said, "The variability of HIV means we need a new strategy for development of vaccine. The responses we are trying to generate needs to cover all the variants of HIV."

Researchers have resorted to the use of broadly neutralising antibodies (bnAbs) for HIV vaccine development. This is based on a 2021 study conducted among cisgender men and transgender persons from the Americas and Europe as well as some at risk women in sub-Saharan Africa which showed that it is possible to protect people from acquiring HIV by giving them infusions of bnAbs.

"Antibodies are proteins that are produced by your immune system to fight diseasecausing agents. When one is exposed to a virus or bacteria, there are cells in your immune system that recognises and then produces a machinery that's able to generate these proteins that either bind to the virus or kill the virus itself," he explained.

According to Dr Kioi, bnAbs are a special type of antibody produced by the immune system of individuals who have lived with HIV over a long period. This antibody is only produced by about five to ten percent of people living with HIV.

He notes that these antibodies recognise all the variants of HIV and react only to the part of the virus which does not keep changing. Referring to studies carried out on people living with HIV and how their immune system is able to develop these responses over time, Dr Kioi said, they noticed that there is a sequence of viruses that the immune system is exposed to that allows them to generate these responses.

"What we've done is take those viruses and try and produce vaccines from those viruses that cause the generation of broadly neutralising antibodies," he said, noting that this is a rational approach to design and development of vaccine.

Unlike in other vaccine development process where the vaccine is tried and then researchers find out why it worked and which part was protective, this approach starts from the end with testing for immune responses then followed by efficacy tests.

"We are starting by generating the responses first which we believe will be protective. Once we have generated this broadly neutralising antibodies' responses with a vaccine, then we will go back and start the process for efficacy," he said.

Further, contrary to other vaccines, the IAVI researchers are starting with one vaccine to train the immune system, then different vaccines to drive it to produce the response desired.

According to Dr Kioi, the naïve cells with potential to produce bnAbs are given one vaccine to increase in number (expansion), a second vaccine which is different from the first, to boost that response- to increase in number and increase development towards the eventual outcome- and a last vaccine which will polish the response and allow it to be a mature response.

The process will include designing vaccines based on what is observed in people living with HIV, testing it in animals to see if it produces the desired response.

Already, based on this approach, IAVI and its partners have conducted two trials, namely IAVI G001 and IAVI G002. IAVI G001 tested the first stage in the multi-stage HIV vaccine candidate the researchers are developing. The trial results show that the vaccine had a favourable safety profile and induced the targeted response- produce the cells and cause them to increase in number- in 97 per cent of people who were vaccinated.

IAVI G002 is underway with researchers testing a different vaccine candidate to find out if it can further guide the responses generated from the first vaccine candidate to produce more bnAbs.

We have tried to produce vaccines from viruses that cause the generation of broadly neutralising antibodies.

- Dr Vincent Kioi Head of HIV product development, IAVI



Samuel Anyula Gorigo, Clinical arm lead, Health Options for Young Men on HIVAIDS & sexually transmitted infections (STIs) (HOYMAS) Kenya speaking to journalists during a media science cafe.

## Expert calls for gender balanced campaigns

By Sharon Atieno I sharonphoebeatieno@gmail.com

overnments and civil societies in HIV space have been urged to conduct gender neutral campaigns which focus on men and women.

Samuel Anyula Gorigo, Clinical arm lead, Health Options for Young Men on HIV/ AIDS & sexually transmitted infections (STIs) (HOYMAS) Kenya made this call during a Media for Environment, Science, Health and Agriculture (MESHA) café in Nairobi, Kenya.

HPV is a group of more than 200 related virus categorised into low and high risk. High-risk HPVs can cause several types of cancers with HPV 16 and 18 being responsible for almost all cervical and anal cancers.

"Primarily, HPV is a sexually transmitted infection. Men have a role to play in it but we are not including or engaging them in our HPV programming," Gorigo said.

Based on cases received at their clinics, he noted that "most of the men are coming at advanced levels when the infection has progressed."

Gorigo observed that a lot of stigma is associated with anal infections, making it difficult for men to seek timely treatment. Additionally, HPV information usually targets women, hence men are not aware that they are also at risk.

A study conducted among gay, bisexual and other men who are having sex with men (gbMSM) in Nairobi County, assessed HPV prevalence, characterised genotype distributions, and explored risk factors for HPV infections, with a particular focus on vaccine-preventable HPV types.

The study conducted among 115 participants found that gbMSM living with HIV in Kenya are at higher risk of anal HPV infections including genotypes that are preventable with available vaccines. These include HPV 16, 35, 45 and 58.

According to the results, more than half (51 per cent) of the participants had anal HPV prevalence. Of these, 84 per cent were living with HIV while 24 per cent were HIV negative.

Other studies carried out in several sub-Saharan African countries including South Africa, the Central African Republic, and Nigeria also indicated a higher prevalence of anal high risk HPV infection, ranging from 57.6 per cent to 82.7 per cent among gbMSM, especially in HIV-positive groups.

Since 2019, Kenya has been rolling out a HPV vaccination programme targeting adolescent girls. The programme includes a two-dose series given to girls between 10-14 years with the dose administered six months apart.

Calling for expansion of the vaccination programme, Gorigo notes that though boys and men can access the vaccine, it is expensive as it has to be sourced privately.

Current global immunisation guidelines including in the United Kingdom and Australia now recommend HPV vaccination for men up to 26 years of age, as well as for gbMSM living with HIV up to and including 45 years of age. However, this is yet to be implemented in many countries especially sub-Saharan Africa.

Primarily, HPV is a sexually transmitted infection. Men have a role to play in it but we are not including or engaging them in our HPV programming.

- Samuel Anyula Gorigo, Clinical arm lead, Health Options for Young Men on HIV/AIDS & sexually transmitted infections (STIs) (HOYMAS) Kenya

**Photo Credit: NSDCC** 



Marathoners in the NSDCC World AIDS Day 2024 commemoration Led by CS Health Dr Debora Barasa and CEO, NSDCC Dr. Ruth Laibon Masha.

## A race against time: Bridging and sustaining the gains

By Violet Otindo | votindo@gmail.com

t 16, Zippy Achieng' from Kibera used to dream of becoming a scientist. But her aspirations were dashed when she discovered that she was HIV positive at 17 years old. She was in Form Two, and already a teen mother, and the stigma she faced for being HIV positive always made her skip her dose of drugs.

Born with the virus, she is part of a generation that has grown up benefiting from Kenya's progress in HIV treatment and prevention. However, Achieng's story also reflects the persistent challenges—inequalities in accessing information, dwindling resources for public education, and the constant fear of discrimination.

"My teachers knew my status, but they didn't talk about it. Some of my classmates used to whisper about me," she says, her voice communicating mix of hope and frustration.

"I just wish people understood what HIV is and how we can live normal lives with treatment," she says.

Achieng's story is one among thousands, reminding the world of the human faces behind the statistics.

As Kenya joined the world in commemorating World AIDS Day 2024 on 1st December, a sobering reality loomed over the country's progress in combating the HIV epidemic. The theme, "A Race Against Time: Bridging Gaps, Sustaining Gains," reflected the urgency of addressing emerging challenges.

They include men and boys' access to health, high numbers of HIV related illnesses among boys and men, rising number of injecting drug user even as significant strides are being made in research and treatment.

Kenya, long considered a leader in Africa's HIV response, has achieved remarkable milestones over the past decade. New HIV infections have reduced by 83 per cent, and AIDS-related deaths have declined by 65 per cent.

A lot of cutting age research is domiciled in Kenya. However, the national conversation on that special day highlighted an alarming trend: the global and local funding landscape for HIV programmes, particularly public education and awareness campaigns, is shrinking.

## Progress amidst waning public education

Kenya has been at the forefront of groundbreaking HIV research. Studies like the recent exploration of Doxycycline Post Exposure Prophylaxis (dPEP) for preventing sexually transmitted infections among vulnerable populations and approval are signals of hope for innovative prevention strategies. Similarly, advancements in preexposure prophylaxis such as injectable PrEP, dapivirine, vaginal ring and vaccine trials show promise in reducing new infections.

As Kenya joined the world in commemorating World AIDS Day 2024 on 1st December, a sobering reality loomed over the country's progress in combating the HIV epidemic. The theme, "A Race Against Time: Bridging Gaps, Sustaining Gains," reflected the urgency of addressing emerging challenges.

Yet, these scientific advancements remain inaccessible to many Kenyans due to limited awareness and education resulting from skewed dissemination method which does not reach to the populace. Public education campaigns—once a cornerstone of Kenya's HIV strategy—are now severely underfunded. Experts warn that the lack of public understanding about emerging prevention tools threatens to derail the progress made.

Dr Peter Arimi, Project Director at the HIV prevention Technical Support unit at the Partners for Health and Development in Africa, highlighted this paradox during a debrief meeting or the WAD 2024. "We are seeing a disconnect between research advancements and public access. Without robust education campaigns, these breakthroughs won't reach the communities that need them most. When the government announces that a product has been approved, what does that mean for the public?", Dr Arimi noted.

## Community voices: The impact of reduced awareness campaigns

In rural Kenya, where HIV prevalence remains high, the absence of consistent public education has deepened inequalities-thus widening gaps in access to information between urban and rural set-up. For communities in Kisumu, Kakamega, and other high-burden counties, misconceptions about HIV persist, particularly among young people. This demographic, aged 15-24, accounts for most new infections, underscoring the need for targeted communication.

Grace Asundi, a 23-year-old peer educator in Kakamega, western Kenya noted the challenges. "The youth here do not understand that HIV is still a threat. Social media is flooded with misinformation, and there is no counter campaign to correct these narratives. Youth even share drugs like PrEP, some believe it is a magic bullet and can be taken just like a Postinor 2 a commonly used emergency contraceptive.



Advocates like Jerop Limo represent young people who need policies and programs which speak to their aspirations.

We need education campaigns to revive awareness."

Asundi is part of a dwindling group of grassroots advocates trying to fill the gap left by reduced funding. Her efforts involve hosting small community forums and using WhatsApp groups and podcasts to share accurate HIV information—a far cry from the large-scale campaigns that once dominated the national landscape.

## The cost of complacency

Kenya's leadership role on the global HIV stage was recently reaffirmed when Nairobi hosted the 55th UNAIDS Programme Coordinating Board (PCB) meeting. Discussions at the PCB centred on sustainable funding, with Kenya advocating for renewed global commitments to HIV responses.

However, local advocates worry that complacency in funding public education could reverse gains. Statistics from 2024 reveal that Kenya, like many sub-Saharan African countries, is off-track to meet the global 2025 HIV targets. Factors such as stigma, gender inequalities, and economic barriers continue to hinder progress, especially for adolescent girls and young women.

Speaking during an interview on Spice FM, Dr Ruth Laibon-Masha, CEO of the National Syndemic Diseases Control Council (NSDCC), emphasised the urgency of bridging the funding gap for public education campaigns.

"We cannot afford to lose the gains we've made in the fight against HIV. Research and treatment advancements are crucial, but they must be paired with comprehensive education campaigns. Without informed communities, we risk stagnating—or worse, reversing—our progress," she stated.



Leaders in the HIV response led by Kenya's Health Cabinet Secretary, Dr. Deborah Barasa, drum support for public education as the key pillar in the undertakings calling on donors and partners to reinvest in this critical area.

Photo Credit: Violet Otindo



A decade of progress report and Kenyas operational plan for the HIV response beyond 2030 launced during World AIDS Day 2024.

Her sentiments were echoed by Principal Secretary of Medical Services, Ministry of Health Mr Harry Kimutai.

## Reigniting public education: a call to action

World AIDS Day 2024 served as a clarion call for both local and international stakeholders to prioritise public education and rethink integrated service provision in the HIV response. Civil society organisations, healthcare providers, and youth advocates are urging the government to allocate more resources for awareness campaigns that integrate new scientific findings.

Technology presents a unique opportunity to amplify these efforts. Social media, mobile apps, and digital storytelling can bridge the gap, reaching younger audiences in innovative ways. Yet, these tools require significant investment to be effective.

Kenya's Cabinet Secretary for Health, Dr Deborah Barasa, emphasised this during her World AIDS Day speech: "The response against HIV is not just about medical interventions - it is about empowering communities with knowledge. Public education must remain a pillar of our response, and we call on donors and partners to reinvest in this critical area."

## The road ahead

For Kenya—and the world—the race against time to end AIDS as a public health threat by 2030 requires not just research and treatment but also a renewed commitment to informing and empowering every citizen. Only then can the vision of a future free from HIV/AIDS become a reality.

## Kenya's Decade of Progress in HIV Response (2013–2023)

World AIDS Day 2024:

Reflecting, Remembering, and Renewing Resolve.

Progressing Toward 95-95-95:

95% Aware,

97% on ART,

94% Virally Suppressed

Kenya's Progress:

98% Treatment Coverage,

Reduction in New Infections.

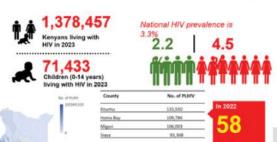
Reduction in AIDS-Related Deaths:

65% Deaths decreased from

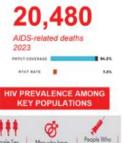
58,446 in 2013

to 20,480 in 2023

### HIV Burden in Kenya- 2023 (Overall)







## Global goal to end HIV/AIDS off track, study warns

By Jackson Okata | amboleokata@gmail.com

new study by the Institute for Health Metrics and Evaluation (IHME) reveals significant progress in the global response to HIV/ AIDS. However, it warns that current trends indicate the world is not on track to meet the ambitious UNAIDS 2030 targets.

The research analysed the global, regional and national burden of HIV/ AIDS among 204 countries and territories from 1990 to 2021. It also forecast trends to 2050. The findings highlighted a mixed landscape of achievements and challenges in response to this global epidemic.

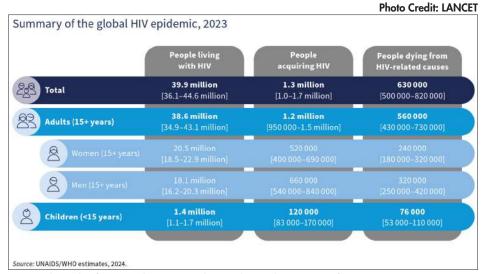
According to the research findings, between 2010 and 2021, new HIV infections decreased from 2.1 million to 1.7 million, while HIV-related deaths decreased from 1.2 million to 718,000. Despite this progress, researchers are afraid that the world is not on track to meet 2030 targets to cut new HIV infections and AIDS-related deaths by 90 per cent.

Dr Hmwe Kyu, IHME Associate Professor and study author, says Sub-Saharan Africa is leading the world in cutting new HIV infections and deaths from the disease.

"The global decline in HIV incidence is largely driven by sub-Saharan Africa, where the likelihood of getting HIV over a lifetime has fallen by 60 per cent since its peak in 1995," said Dr. Kyu.

The region also achieved the largest decrease in population without a suppressed level of HIV (PUV), from 19.7 million people in 2003 to 11.3 million people in 2021.

In contrast, the lifetime probability of HIV acquisition increased from 0.4 per cent to 2.8 per cent between 1995 and 2021, while PUV rose from 310,000 people to 680,000 people between 2003 and 2021 in Central Europe, Eastern Europe, and Central Asia.



Temporal trends of HIV incidence, mortality, and prevalence counts for 1990–2050.

"The world has made remarkable global progress to significantly reduce the number of new HIV infections and lives lost to the disease, yet there are remaining challenges to overcome," said Dr. Kyu.

The study findings show that more than a million people acquire a new HIV infection each year, and of the 40 million people living with HIV, a quarter are not receiving treatment.

"Although substantial progress has been made against HIV incidence and AIDS-related mortality, the world is not on target to meet the UN's 2030 targets to reduce new HIV infections and AIDS-related deaths by 90 per cent," the study reads in part.

According to the report, the number of people living with HIV is expected to peak at 44.4 million by 2039, followed by a gradual decrease to 43.4 million people by 2050. New cases of HIV and deaths associated with the disease are expected to continue to decrease globally.

"The global community must make sustained and substantive efforts to sharpen the focus on prevention, optimise access to antiretroviral therapy, and make HIV testing widely available to achieve prompt diagnosis and linkage to care," said Dr. Kyu.

The study recommends strengthening of the US President's Emergency Plan for AIDS Relief (PEPFAR) and other similar public health programmes dedicated to HIV control. The researchers are also calling for the expansion of prevention services using a multitude of existing and emerging technologies.

Additionally, they are proposing interventions and care delivery models that work must be studied and implemented effectively and equitably, emphasising measuring progress and addressing remaining gaps in the collective goal of ending the HIV epidemic.

Despite this gloomy global outlook, Kenya has been recording remarkable steps towards realising her goal of creating a HIV/AIDS-free society by 2030. Kenya's most significant achievement has been preventing mother-to-child transmission (PMTCT) coverage, currently at 94.60 per cent. The mother-to-child transmission rates have dropped to a single-digit figure of 7.28 per cent.

As of June 2024, data from Kenya's National Syndemic Diseases Control Council (NSDCC) shows that Kenya had 1,378,457 people living with HIV, among them 890,747 females and 487,710 males. HIV prevalence rates among females are high at 4.46 per cent, while the male prevalence rate is at 2.16 per cent compared to the national prevalence rate of 3.3 per cent.

Kenya's new HIV infections as of 2024 stand at 16,752. New infections are high among females at 10,784, and males have new infections at 5,968. This year alone, Kenya has recorded 20,480 AIDS-related deaths, among them 17,873 adults and 2,607 children.

"While strides have been made in reducing new infections, the pace of progress needs to accelerate to reach the global goal of ending AIDS by 2030. This is why expanding access to HIV prevention products, particularly those that are approved but not yet widely available, is critical to achieving these targets," says Elizabeth Irungu from Jhpiego.



Dr Elizabeth Irungu from JHPIEGO: Despite the strides made in reducing new infections, the pace of progress needs to accelerate to reach the global goal of ending AIDS by 2030.

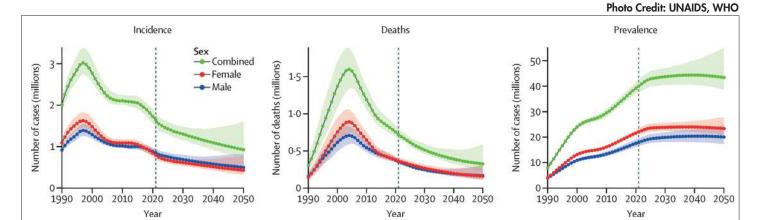
According to her, Kenya has made notable strides in the fight against HIV, partly due to the introduction and approval of several new HIV prevention products. Prevention methods such as Pre-Exposure Prophylaxis (PrEP) and Post-Exposure Prophylaxis (PEP) have played a key role as they are readily available. However, despite these positive developments, there remains a gap in access to these products for many people in need.

If these products are fasttracked, it will ensure that more people have choices when it comes to HIV prevention.

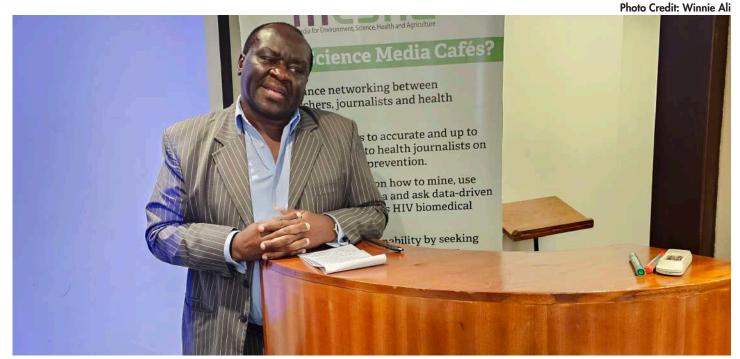
## - Dr Elizabeth Irungu from JHPIEGO

Expanding access to a broader range of prevention options, beyond just PrEP and PEP, according to her would provide individuals with more flexibility and control over their HIV prevention strategies. Currently, these two products are the only prevention options readily available in Kenya, leaving many without alternatives. Fast-tracking access to new products could be a game-changer in the country's HIV prevention efforts.

"We have products that have been approved but are yet to reach the people, such as the vaginal ring. Additionally, there are other products such as long-acting injectables that have been recommended by the World Health Organisation (WHO) but are still awaiting approval. If these products are fast-tracked, it will ensure that more people have choices when it comes to HIV prevention," Ms Irungu said.



Summary of the global 2023 HIV epidemic estimates



Churchill Alumasa, Director Discordant Couples Kenya during a recent MESHA media science cafe. He urged stakeholders not to ignore men and boys in tackling HIV.

## Sports emerges as new model to kick out HIV in society

By Clifford Akumu | akumu.clifford@gmail.com

xperts have called for adoption of sports based programs as a strategy for prevention, care, and treatment in an effort to engage men in HIV response.

Churchill Alumasa, director at Discordant Couples Kenya, explains that initiatives combining sports with health education sessions have proven to be effective in reaching young men.

"We need to reach men in spaces where they get encouraged to discuss their health and access services freely. For instance, we can target football gambling areas, football match venues, or local bars where men frequently gather on weekends to watch games and unwind," said Alumasa during a Media for Environment, Science, Health, and Agriculture (MESHA) cafe in Nairobi, Kenya.

Alumasa also emphasised the importance of addressing the fear men have about seeking help, highlighting a concerning trend in their health-seeking behaviour and its negative impact on efforts to control the virus

Alarmingly, he observed, "Very few men return to facilities to collect their HIV test results compared to the number who initially come in for testing."

He added that focusing on adolescent boys and young men is a significant part of the solution.

Alumasa pointed out that most men in informal settlements are breadwinners, and as such, many do not seek treatment even when they are unwell, fearing it may affect their ability to earn a living.

He stressed the need for health facilities to offer flexible working hours to help these individuals access care and treatment.

He also blamed inadequate information men have regarding health issues, including HIV as an enabler of the apathy. He urged stakeholders to provide this group with necessary information to improve health outcomes.

Jenny Gakii, Program Officer at the National Syndemic Diseases Control Council, noted that men tend to exhibit poor health-seeking behaviour, leading to unfavourable health outcomes, particularly in HIV care.

Gakii highlighted that various intersectional factors, such as cultural norms, toxic masculinity, criminality, limited engagement with health services, and stigma, affect health outcomes for men and boys.

### Photo Credit: Winnie Ali



Jenny Gakii NSDCC, Programs Officer. She emphasised the importance of including men and boys in HIV response.

Photo Credit: Clifford Akumu



Dr Ruth Laibon-Masha, CEO, NSDCC during a past interview.

"We need more action focused on finding and engaging men in HIV care and treatment," Gakii emphasised.

She identified drug and substance use among men and boys as a significant challenge, noting that HIV prevalence among people who inject drugs is six times higher than in the general population. According to health agency data, men and boys represent 89 per cent of all people who inject drugs.

Gakii pointed out that counties like Kiambu, Nakuru, and Nyeri are experiencing a surge in drug use, undermining preventive measures and increasing new HIV infections.

Despite Kenya's 83 per cent reduction in HIV infections over the past decade, it still has a high rate of AIDS-related deaths, largely due to late diagnoses among men aged 40-45 and older, as explained by Dr. Ruth Laibon-Masha. Many men present at clinics with advanced HIV disease, often accompanied by tuberculosis.

Dr. Laibon-Masha noted that advanced HIV disease mortality is more prevalent in men than women, stating, "We are losing many men to HIV/AIDS, depriving families of breadwinners, particularly in our patriarchal society."

She also expressed concern about new HIV infections among young people aged 0-35.

## We need more action focused on finding and engaging men in HIV care and treatment. - Jenny Gakii, Program Officer at the National Syndemic Diseases Control Council

UNAIDS stated in a report that the global goal of ending AIDS as a public health threat by 2030 can be achieved if leaders protect the rights of everyone living with or at risk of HIV.

Dr. Victor Bampoe, UNAIDS County Director for Kenya, stressed the importance of sustaining progress to meet these taraets.

"We are winning many battles against HIV/ AIDS, but the main war is still ahead," said Bampoe.

Several interventions for adolescent boys and young men (ABYM) have shown promise, including MenEngage, which encourages men to get tested for HIV, start treatment if positive, and adhere to their treatment plans.

Furthermore, the Voluntary Medical Male Circumcision (VMMC) programme has proven effective, reducing the risk of HIV acquisition in men by 60 per cent. Grassroots soccer models have also been successful in countries like Zambia.

Mr. Alumasa points out that inadequate education and awareness among men contribute to the spread of HIV, emphasising that "adolescent boys and young men are also vulnerable to HIV infection."

"We are winning many battles on HIV/ AIDS but the main war is yet to be won," said Bampoe.

Already, there are several interventions available for Adolescent boys and young men (ABYM) that have shown progress such as MenEngage which engages men and encourages testing for HIV, enrollment in treatment for those who are HIV positive, and treatment adherence.

Additionally, there has been progress with the VMMC which has proven to reduce the risk of HIV acquisition in men by 60 per cent. Then there are the grassroots soccer models that are working well in countries like Zambia.

## TB in Kenya: Progress, challenges, and the promise of a new vaccine

By Jane Mwanza | mezamwanza.meza@gmail.com

n Kenya, tuberculosis (TB) remains a serious health issue, but efforts to fight it are gaining momentum. The 2024
TB Roadmap, supported by USAID and developed with Kenya's National TB Program (NTP), aims to reduce TB cases and make treatment more accessible.

Meanwhile, the Kenya Medical Research Institute (KEMRI) is working on a new TB vaccine that could change the future of prevention.

Kenya has made some progress in lowering TB cases from 156,000 in 2017 to 128,000 in 2022 due to better detection and treatment. However, only 69 per cent of cases are reported, and only 18 per cent of drug-resistant TB (DR-TB) cases are identified.

Drug-sensitive TB treatment has an 87 per cent success rate, but DR-TB success rates are lower, showing that more needs to be done.

The 2024 TB Roadmap aims to increase preventive treatment coverage from 32 per cent in 2021 to 80 per cent by 2028, while also improving access to care with a target of reaching 70 per cent treatment coverage for drug-sensitive TB and 80 per cent for drug-resistant TB.

It focuses on integrating TB and HIV services to provide comprehensive care, particularly for high-risk groups, and leverages innovative technologies, such as portable digital X-rays enhanced with Artificial Intelligence, to improve TB detection in remote areas and offer shorter, more accessible treatment options.

KEMRI's Mtwapa facility is testing the M72/AS01E TB vaccine, a potential gamechanger in TB prevention. Started three months ago, these trials are part of a global effort across 60 sites, including four in Kenya Nairobi, Kilifi, Mtwapa and Kisumu. The trials will continue for five more years to ensure safety and effectiveness.

The vaccine aims to protect people aged 15-44, who are currently the most vulnerable to TB. According to Wilson Muraya, the principal investigator for the TB vaccine trials at KEMRI, no effective TB vaccine currently exists for adolescents and adults, leaving them particularly exposed.

KEMRI's Director General, Elijah Songok, also noted that climate change and increased travel across borders are adding to Kenya's vulnerability to diseases like TB.

In 2021, an estimated 10.6 million people fell ill with TB and 1.6 million died, which translates to about 4,300 people per day. The disease primarily affects people in lowand middle-income countries, and those at highest risk are often living in poverty, with poor living and working conditions and undernutrition.

## A survivor's account

Jenipher Mwandawiro, a TB survivor and advocate from Taita Taveta County working with the Network of TB Champions Kenya, speaks out about the challenges of TB in Kenya. Although TB is curable, it remains one of the world's deadliest infectious diseases, affecting both children and adults in Kenya. Mwandawiro urges the government to increase funding for TB, as treatment is expensive and requires a special diet that most Kenyans cannot afford.

Mwandawiro was diagnosed with multidrug-resistant TB in December 2018, after a difficult search for answers. She experienced severe weight loss, persistent night-time coughing, and loss of appetite.

For eight months, she was misdiagnosed and treated with antibiotics for conditions like pneumonia and malaria. She recalls one of her worst days when she went to collect her test results and found that hospital staff avoided her, wearing masks and keeping their distance once they recognised her.



Jenipher Mwandawiro, a TB survivor says her diagnosis brought deep emotional pain.

# After completing my treatment and recovering, I felt motivated to share my story. I wanted to encourage and educate communities about the difference between TB and HIV. - Jenipher Mwandawiro, a TB survivor and advocate from Taita Taveta County

"That's when I was told to put on a mask and isolate myself because I had dangerous TB," she recalls.

Her diagnosis brought deep emotional pain. She thought of ending her life and felt isolated as rumours spread in her village.

Some people associated her illness with HIV. Despite this, her immediate family supported her throughout her treatment journey.

The lack of awareness about MDR-TB often isolates patients. Treatment is lengthy, lasting six to 18 months.

During the treatment Mwandawiro, went from 85 kg to 51 kg. The medication left her with permanent side effects, including impaired vision, heart issues, and hearing loss, which she now manages.

"After completing my treatment and recovering, I felt motivated to share my story. I wanted to encourage and educate communities about the difference between TB and HIV. That's why I decided to become a TB advocate I don't want anyone else to go through what I did," she says.

As a medical engineer, Mwandawiro knew little about MDR-TB before her diagnosis. Her treatment was intense, involving four months of daily injections and sixteen tablets per day, with a nurse visiting her daily for six months.

The Voi sub county hospital often lacked medication, so she turned to a hospital in Tanzania, where medication was slightly more affordable but still costly, around Ksh 10000 (\$77) weekly. Fortunately, AMREF helped by providing Ksh 6000 (\$46) for transportation and Ksh 6000 (\$46) for monthly fruit allowances, making the journey a bit more bearable.

Counties like Nairobi, Kisumu, Mombasa, and Kilifi face high TB burdens, partly because TB thrives where HIV rates are high. TB and HIV weaken the immune system, making people more susceptible to infections. By combining TB and HIV services and educating communities, the 2024 TB Roadmap aims to reduce TB's impact in these areas.

Mwandawiro emphasised the goal to end TB by 2030, urging both national and county governments to take on a greater role in combating TB, which has largely been left to donors who are now withdrawing support.

"TB cases are common at least two new cases are recorded daily at our Voi sub county level. If the government is serious about ending TB, more funds should be directed toward it, and vaccines or treatments should be provided at the county level," she says.

Dr Williamson Mwadime County Coordinator for TB and Leprosy Coordinator Taita Taveta county explains that while Kenya has made significant progress in TB detection and treatment, key challenges remain. One major issue is the delay in diagnosing TB, especially drug-resistant TB, due to limited diagnostic facilities. Stigma surrounding TB remains high.

"I would like the public to understand that TB is preventable, treatable, and curable. Having TB does not mean someone is weak, poor, or careless; it is an infectious disease that anyone can contract. The best way to protect ourselves and our loved ones is to encourage early testing, complete treatment, and support one another," advises Dr Mwadime.

In Taita Taveta County, where the 2016 Kenya TB Prevalence Survey estimated the TB burden at 426 per 100,000 people, the Case Notification Rate (CNR) was significantly lower in 2022, at 173 per 100,000 people. The county provides TB treatment at 69 sites, with diagnostic services available at 48 facilities, covering 69.6 per cent of the area. Diagnostic resources include two GeneXpert machines in Taveta and MCRH Voi, and Truenat machines at Wesu and Mwatate Sub-County Hospitals, all currently operational.

TB and HIV weaken the immune system, making people more susceptible to infections.



Kay Marshall was a quiet force behind the scenes, guiding media science cafes in Africa and AVAC in HIV biomedical and prevention landscape.

## Saying bye to a retiring general Kay Marshall

By Violet Otindo | votindo@gmail.com

t is challenging to encapsulate the profound impact Kay Marshall has had on HIV prevention, advocacy and communication. As she retires, we reflect on her legacy—a testament to love, care, leadership, collaboration, and unwavering dedication. Kay deeply loved Kenya and Africa, and her work reflected this passion. At MESHA we count ourselves among the lucky ones who had the privilege of working with Kay.

## How did Kay come into our life at MESHA?

Kay had heard about the excellent work Media for Environment, Science, Health and Agriculture (MESHA) does in reporting health and science. Her main focus was to meet our Captain, Aghan Daniel, who, due to his busy schedule, had travelled out of the country.

Together with Kimani Chege our then coordinator we were tasked to meet Kay. I was then the MESHA Chair. Our discussions were mainly on what MESHA does and on how we conducted the science media cafes with the French Embassy then. That was on a significant day in April 2017, Chege and I met Kay over coffee in a restaurant in the city of Nairobi, Kenya.

From that day, Kay became the quiet force behind the scenes, guiding the field, AVAC, and many of us through every twist and turn of the HIV biomedical and prevention landscape. Her wisdom, clarity, and unwavering commitment have been our compass through trial launches, unexpected closures, groundbreaking results, and deeply disappointing outcomes.

In the words of the AVAC boss, Mitchell Warren, Kay has been there through it all—the moments of triumph and uncertainty, the clear answers, and the new questions that emerged from trials. She shaped the stories behind every controversy, conflict, and crisis, fostering collegiality and collaboration even in the most challenging circumstances. If it happened in HIV prevention, Kay not only knew about it but also ensured the narrative was thoughtful, accurate, and impactful.

"Kay was actually born in the United States of America but her real home has been Africa. She was like a sister and a mother to us, always tackling our issues here as if she was part of the sensitivities in the continent. She had a great personality which never quarreled but would be firm enough with you in ways that would really drive home your iniquities in love and humanely. Nowhere was far for Kay and we will miss her visits to our family home situated deep in a desolate area in the outskirts of Nairobi, Kenya. She made reporting HIV have a whole new meaning to us in MESHA." Aghan Daniel, Secretary and Team Leader, MESHA

At conferences, she excelled at breaking down complex and pressing issues, distilling them into clear, accessible insights for diverse audiences. Her ability to translate dense scientific data into compelling narratives ensured that policymakers, researchers, advocates, and media professionals alike could grasp and engage with the core message. Through her work, she bridged the gap between technical details and real-world relevance, ensuring that critical stories resonated with all stakeholders, including the communities we serve.

Kay's other remarkable contribution was her pivotal role in guiding the Media for Environment, Science, Health, and Agriculture (MESHA) to entrench health journalism among our members. Kay's vision and guidance helped shape MESHA into a platform that amplifies voices, fosters collaboration, and drives meaningful change. Under her leadership, MESHA achieved a milestone few could have envisioned: the formation of a consortium of science journalists from eastern and southern Africa.



This space is bound to bring together journalists, scientists, advocates, and policymakers to share knowledge, align strategies, and amplify impact.

Kay's ability to see the bigger picture and bring people together ensured that MESHA not only thrived but also became a model of collaboration in health communication.

Kay's work with MESHA reflected her broader approach to everything she did. She believed in the power of partnerships and collective action. Whether shaping the narrative around groundbreaking trial results or guiding a consortium toward a shared vision, Kay always emphasises the value of working together.

Her retirement marks the end of an era. It is hard to imagine our work without her steady hand, sharp mind, and wry humour. But if there's one certainty, it is that Kay will embrace this next chapter with the same grace and gusto she brought to her career.

As she steps into this new phase, we celebrate not only Kay's professional achievements but also the personal connections she fostered along the way. Her mentorship, kindness, and humour have left an indelible mark on all who had the privilege of working with her.



Kay played a pivotal role in guiding MESHA to mainstream health journalism among our members.

## Neglected diseases lead tops at the African Health Excellence Awards

By Christine Ochogo | christawine@yahoo.com

Kenyan, Dr. Borna Nyaoke-Anoke, a clinical researcher and public health specialist at Drugs for Neglected Diseases Initiative (DNDi) has won the Healthcare Researcher of the Year 2024 award.

She is the Head of the Global Mycetoma Disease Program at the institution.

The award was given at the African Health Excellence Awards in Johannesburg, South Africa on 30th November 2024 in recognition of her outstanding contributions to healthcare research across multiple infectious diseases.

Her work on neglected tropical diseases, particularly her managing clinical trials and epidemiology studies together with advocacy for mycetoma across Africa and Asia, has been transformative, raising awareness and driving critical research efforts to combat this under recognised disease.

Additionally, Dr. Borna played a pivotal role in managing COVID-19 clinical trials across Kenya and Sudan, helping to ensure that treatments were tested effectively within African populations.

Her previous work on HIV and Ebola vaccines has also contributed to the development of critical interventions for these devastating diseases. Through her research and advocacy, Dr. Borna has made an indelible impact on improving public health in Africa, earning this well-deserved recognition.

Dr Borna Nyaoke-Anoke, holds an MBChB degree from the University of Nairobi, Kenya, and a Master of Public Health degree from the University of Liverpool, U.K. Additionally, she has specialized training in the design and conduct of clinical trials through the Global Clinical Scholars Research Training (GCSRT) Program at Harvard Medical School, U.S.A.





Dr. Borna Nyaoke-Anoke winner of the Healthcare Researcher of the Year 2024 award. She is a clinical researcher and public health specialist and Head of the Global Mycetoma Disease Program at Drugs for Neglected Diseases Initiative (DNDi).

# Health advocate: Youth need prevention methods spiced with pleasure

Photo Credit: MESHA



Doreen Moraa Moracha, a HIV cure advocate. She says that lenacapavir offers a twiceyearly injectable alternative to daily medications. Such innovations can transform global prevention approaches.

By Tebby Otieno | tebbyotieno62@gmail.com

hen Doreen Moraa Moracha, a health advocate arrived in Lima, Peru in October 2024 for the HIV Research for Prevention (HIVR4P2024) conference, she had a message for the forum.

She wanted researchers to develop prevention products that are attractive to young people who have been put off by certain messaging that portrays sex as a risky behaviour.

Speaking during the forum that was attended by more than 1,000 participants, Moracha, who was born with HIV challenged scientists to develop HIV prevention products that have a pleasure component, without compromising quality. Such products include female condoms and vaginal rings.

"Researchers overlook the importance of embracing sexual pleasure as a tool for promoting HIV prevention. We need to shift the narrative from harm and stigma to pleasure-based sexual health which is crucial to increase uptake and acceptance of the products," she said.

Social media advocacy Moracha uses her social media accounts to advocate for wide range of prevention choices for young people.

Speaking recently during a cross border café themed Beyond HIV R4P 2024, she spoke about promising long-acting prevention options.

"Lenacapavir offers a twice-yearly injectable alternative to daily medications. Such innovations can transform global prevention approaches. Accessibility and affordability remain challenging," she said.

Joyce Ng'ang'a, senior policy advisor at WACI Health, an African regional advocacy organisation, echoed Moracha's sentiments

Speaking during the café organised by Media for Environment, Science, Health, and Agriculture (MESHA), she said just as there is choice in food, wear and fashion, prevention too requires it.

"Options mean biomedical methods that are safe and effective, and they require research and development. We require additional options to add to the mix. What we have is good, but it is not sufficient," said Ms Ng'ang'a.

The realisation of that goal is not far as a group of a draft of the HIV prevention choice manifesto for women and girls in Africa has already been developed.

According to Ms Ng'ang'a, the document focuses on a future free of HIV for women and girls in Africa.

HIVR4P is the only global scientific conference focused exclusively on the challenging and fast-growing field of HIV prevention research – and the fifth edition in Peru, discussed key innovations in the field.

Mitchell Warren, executive director at AVAC said it is through such engagements that different products like oral prep, dapivirine vaginal ring, injectable cabotegravir, and injectable rilpivirine have been developed.

"At least half of the presentations in the event were related to the delivery of PrEP in its current forms or thinking about future PrEP delivery. That is the big change over the decade. We still see a lot of research development and deliveries which is a big part of R4P," said Warren.

Prof Nelly Mugo from Kenya Medical Research Institute (KEMRI) added that from the conference, it emerged that HIV prevention products in the market are messaged wrongly.

"They are profiled on people at high risk of HIV, high risk of sexually transmitted infections, or high risk of pregnancy forgetting that people do not have sex for risk. They do it for pleasure."



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