

**SCIENCE**

# SAYANSI

*All science information*

Issue No. 11

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## **CIMMYT releases 15 new disease resistant maize varieties**

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**MESHA journalists feted for exemplary reporting**

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# SEED TRADE ASSOCIATION OF KENYA (STAK) CONGRESS 2018



The STAK Congress will be held on the 7<sup>th</sup> – 8<sup>th</sup> November, 2018 at the Kenya School of Government.

This year's theme is **“Facilitating business in Quality Seed through technological innovation and an enabling environment”** and in line with the theme which is seed business in nature, the sessions will cover issues ranging from Policy framework as an enabler to seed business; Agricultural productivity and Market access; Partnerships, Use of innovations and Ease of doing business.

The congress is expected to attract over 300 delegates involved in the seed industry including government officials, development partners, research institutions, universities, agrochemical industry, processors, machinery suppliers, agro dealers, farmers and media. Congress sessions will focus on; seed policy framework as an enabler to seed business; agricultural productivity and market access; partnership, use of innovations and ease of doing business etc.

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# THE HEALTH TOOLBOX

Connecting African journalists with experts on infectious diseases.

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**T**he Media for Environment, Science, Health and Agriculture (MESHA) was founded in November 2005 in Nairobi, Kenya, and is an organisation that 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 on rural journalism and communication.

The idea for the formation of this association sprang up from the fact that there were many organisations and communicators in the fields of agriculture, environment, health and development. However, few organisations in the region bring journalists covering these issues together, for better reporting 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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# Are we writing the last chapter on AIDS?

By Violet Otindo | [votindo@gmail.com](mailto:votindo@gmail.com)

**T**urning the tide: Preventing New HIV Infection and Optimizing treatment Outcomes was the theme of the just ended 2018 HIV Prevention, Care and Treatment Scientific Conference 2018 held in Nairobi.

Listening to the presentations and discussions in the Conference, one could conclude that many of the delegates had firm belief that the three magic numbers 90:90:90 will turn the tide against the epidemic.

What was interesting in the meeting was the glaring fact that the experts affirmed that Kenya has embraced new prevention tools, beyond treatment. The public can now also access innovative technologies for testing.

As the second leading cause of death, speaker after speaker painted the picture of a disease that is a pandemic. These experts acknowledged that without rapid scale up in testing, treatment and viral suppression, the epidemic would continue to outrun responses.

Dr Rashid Aman, Chief Administrative Secretary at the Ministry of Health attested that, the 90-90-90 treatment target is an ambitious strategy but will bring the HIV epidemic down on its knees. The 90-90-90 is a strategy unveiled by the Joint United Nations Programme on HIV/AIDS (UNAIDS) in 2014. It is essentially a fast track plan to halt the spread of HIV by 2020 and to eventually end the epidemic by 2030.

It is believed that by targeting to have 90 percent of people living with HIV tested, 90 percent of those diagnosed with HIV put on treatment and 90 percent of those on treatment achieving durable viral suppression then the HIV tide will be turned.

However, the primary health concern for now is the need for collaboration towards ending the epidemic. People are now living longer quality lives but we can do more. Through concerted efforts, we can achieve other important numbers; Zero stigma, zero new infections and zero AIDS related deaths.

Community centered initiatives will be key to empower those infected and affected by HIV. It is one thing to take antiretroviral drugs (ARVs) and another to receive community support. Today there is a lot of advocacy efforts driven by people living with HIV and especially the efforts they make to reach out to others. The 90-90-90 plan may be ambitious but it can be achieved if a strong community component is

added to the initiatives at the grassroots level.

NASCOP statistics show that by April 2018, at least 72 per cent of the estimated total number of people living with HIV had been tested, and over 90% of adults and children diagnosed with HIV were on antiretroviral therapy (ART).

In 2015, the fight against HIV was greatly bolstered when the World Health Organization (WHO) issued guidance on testing and treating all HIV infected persons regardless of their CD4 count. This was followed by the "Test and Treat" also dubbed in Kenya as "Anza Sasa" to put anyone who tests HIV positive on treatment in 2016.

Since then, Kenya has made even more progressive steps and is pushing for earlier treatment for those diagnosed with HIV. As the quality of ART continues to improve supported by newer guidelines released in August 2018, experts are convinced that there will be more people in HIV care.

Overall though, experts were clear that the 90-90-90 plan is more than putting people on drugs and it is also about achieving viral suppression.

Individual-level viral load is the recommended measure of ART efficacy. It reveals the extent to which a person is responding to treatment, when the viral load is suppressed, the risk of transmitting the virus to another person becoming negligible.

High HIV suppression has been achieved in countries such as Rwanda where at least 83 percent of people receiving ART were found to be virally suppressed after 18 months of therapy. Routine data from Kenya also shows that more than 80% of people on ART have achieved viral suppression though this is lower in children.

Towards quality and accessible HIV prevention, treatment and care, donor funding is still critical to the 90-90-90 plan, there is a need for domestic resource mobilization for the strategy to be sustainable.

# Have adolescents been forgotten in anti-HIV fight?



**Emish Ochieng' from western Kenya, moved the crowd with an account of his life as an adolescent living with HIV**

**By Joyce Chimbi** | [j.chimbi@gmail.com](mailto:j.chimbi@gmail.com)

One of the more overriding concerns during the 2018 HIV Prevention, Care and Treatment Scientific conference was that adolescents and young people are not reaping benefits corresponding to significant investments in the prevention and treatment of HIV.

This concern took a human face when 18 year old Emish Ochieng from Homa Bay moved the crowd with an account of his life as an adolescent living with HIV. He learnt of his HIV status in 2009 aged only nine years.

"My mother died during delivery but my father is alive. I also have a step mother and five siblings. I am the only child with HIV so stigma started at home. I had my own utensils and all hell would break loose if I was caught using any other utensils than the ones bought for me," he says.

While in boarding school for his secondary education, Ochieng's life was far from easy, in fact, he would take his drugs at midnight in an attempt to conceal his HIV status.

## **This worked for some time.**

"When I was in Form two, students started being curious. They wondered why I would open my box at midnight. As suspicion grew, they asked me for the key to my suitcase in the pretense that they would pick my dirty clothes for washing."

Ochieng did not think much of it, but he quickly realized that they had been on a mission to discover his secret; which they did when they found his medicine tucked underneath his clothes.

"I suffered a lot because I lost many friends. I would sit alone since they would all avoid me," he recounts.

Most of his pocket money would be spent on transport once every month to the clinic to collect his antiretroviral drugs (ARVs). "Since the school was not aware of my status, I would lie that I had an illness that I knew the school could not treat. But on returning to school, I would be forced to buy drugs for the disease that I had said I was suffering from," he says.

He would then throw his ARVs across the fence and collect them once he had reported back. It was a difficult and trying time for the young boy who had promised himself and his father, that he was going to do everything possible to live a long and quality life.

Unfortunately Ochieng is not alone. Since HIV burden in Kenya is driven by sexual transmission, it consequently affects all sections of the population. Nonetheless, it is the burden among the young that has experts on the edge as statistics show that they are being left behind.

Among the countries in Eastern and Southern Africa, Kenya has the second highest population of young people aged 15 to 24 years after South Africa.



**A section of young people at the 2018 HIV Prevention, Care and Treatment Scientific Conference held at the Movenpick Hotel last month**

Kenya also has the third highest rate of new HIV infections among the same population (15-24 years).

Speaking at the sideline of the four-day conference, Prof. Nduati who is a Professor of Pediatrics explained that HIV has not only remained alarmingly high among adolescents and young people, but that trends show they are also missing out on care and treatment.

"Adolescents and young people 15 to 24 years now account for at least 51 per cent of new HIV infections," she explained.

Despite the significant actual and potential threat of HIV among adolescents 15 to 19 years, they are missing out on available innovative testing technology, better treatment regimens as well as improved and comprehensive antiretroviral care.

Prof. Nduati confirmed that less than 50 percent (48.5 percent) of the total population of young people 15 to 19 years have been tested for HIV. The numbers are encouragingly higher among those aged 20 to 24 years as at least 84.8 percent of them have been tested.

She emphasized that the high HIV prevalence is in tandem with earlier sexual debut. "Over half of the youth had sex before the age of 18. The lower the age at which young people start having sex, the higher the risk of infection."

Experts pointed to the Kenya AIDS Strategic Framework 2014/15-2018/19 which identifies adolescents and young people as a priority population for HIV response.

Addressing participants at the conference, the First Lady of Laikipia County, Maria Mbeneka painted a picture of a county struggling to cope with high HIV prevalence among its young.

"Between 2007 and 2017 we have recorded significant reduction of HIV prevalence from 6.2 per cent to 3.2 per cent which is equivalent to a 48 per cent reduction in new infections. Among adolescents and children we recorded a seven per cent reduction within the same period," she observed.

Prof. Nduati cautioned against the risk of undiagnosed depression among adolescents and that this increases the risk of failure to adhere to treatment. The 2018 Guidelines on Use of Antiretroviral Drugs for Testing and Preventing HIV in Kenya recommends mental health screening and management.

According to the guidelines, "All people living with HIV should receive basic screening for depression before initiating ART, and annually thereafter and whenever there is a clinical suspicion."

On optimizing management of pediatric HIV treatment, Dalton Wamalwa, who is an associate Professor of pediatrics at Kenyatta National and Referral Hospital highlighted the challenge of maintaining viral suppression among children and adolescents.

Prof. Wamalwa encouraged the need for better drug regimens. The 2018 ARV guidelines recommend that adolescents who are virally suppressed on a first line regimen, are at least 35 kilograms or over 15 years should transit to a regimen with a reduced "pill burden, improved regimen durability and tolerability."

Experts said that while the overall national HIV prevalence has dropped to 4.8 per cent, with young people 15 to 24 years accounting for at least 51 percent of new infections, it means that prevalence is rising among this cohort.

Echoing other young people who spoke during the conference, Ochieng' was adamant that there can be nothing for young people without the young people. They encouraged inclusivity in the development of interventions as well as in their implementation.

"Adolescents listen to other adolescents, it is important to support adolescents and young people networks or support groups," Ochieng' said as he emphasized the need for schools to embrace and support HIV positive children.

It is while in Form three, adds Ochieng', that life changed for the better. The deputy headmaster took an interest in him having noted that he had no friends, had lost weight and his performance had drastically dropped.

"He became my trustee. He even accompanied me to the clinic and convinced them to give me drugs that would take me through a period of three months to avoid my monthly visits," he explains.

As 80 per cent of children in Kenya are in school, this is one of the most important arenas in the prevention, care and treatment of HIV among adolescents and young persons.

# Young women's HIV burden worries experts



**Delegates follow proceedings at young people's session during a recent scientific conference held by NASCOP and her partners in Nairobi**

**By Joyce Chimbi | [j.chimbi@gmail.com](mailto:j.chimbi@gmail.com)**

**A**s curtains fell on what has been a landmark scientific conference on the prevention, care and treatment of HIV, it was clear that there are many strides made in the right direction.

Notably, the national adult HIV prevalence has been on a steady decline in the last seven years.

According to the National AIDS and STI Control Programme (NASCOP), "annual new infections are less than a third of what they were in 1993" when the epidemic was at its strongest.

There are now better antiretroviral regimens that are accessible and consequently, more people on treatment inspiring experts to declare that the country may well be on its last mile towards achieving the 95-95-95 dream.

This is essentially a fast track plan to halt the spread of HIV by 2020 and to eventually end the epidemic by 2030.

Initially dubbed the 90-90-90 Aids eradication strategy, the goal is to have 90 percent of people living with HIV tested, 90 percent of those diagnosed with HIV put on treatment and 90 percent of those on treatment achieving durable viral suppression.

Based on advances in the treatment and care of HIV, experts are now aiming for 95-95-95.

Nonetheless, experts are alarmed that this success story has been clouded by failure to prevent new infections among young women 15 to 24 years.

"When you talk about new HIV infections, these are people who are negative today and HIV positive tomorrow.

Young people account for about half of these new HIV infections and this is a worrying statistic," said Anthony Chazara, LVCT Health and Youth Programme.

Dr Lillian Njagi from Kenyatta National Hospital concurs: "More than half of all new HIV infections occurred among adolescents and young people aged 15 to 24 years which is a sharp rise from 29 percent in 2013."

According to NASCOP's latest estimates, 1.5 million people were living with HIV with youths accounting for 280,000 of these numbers.

Speaking at the conference, Dr Njagi was particularly concerned that young women continue to be disproportionately affected by HIV.

Across Africa, HIV infections among young women are double or triple those of their male peers.



**Dr Laura Oyiengo, program manager, Paediatric, Adolescent and Youth HIV Program, NASCOP makes a presentation during the September HIV Prevention, Care and Treatment Scientific Conference 2018. She said that the high number of adolescent living with HIV/Aids in Kenya was attributable to behaviour, social environment, biological factors and economical factors.**

“In Kenya, young women are almost twice as likely to acquire HIV compared to young men,” she emphasized.

Due to their vulnerability to HIV, young women 15 to 24 years account for 33 percent of the total number of new HIV infections. In comparison, NASCOP statistics show that young men account for an estimated 16 percent of the new HIV infections.

Experts attribute this high HIV prevalence to gender inequalities, violence against women, limited access to health care, lack of access to education and jobs, and health systems that do not address the needs of young people.

During the entire period of the conference, experts belaboured the fact that the face of HIV has significantly changed.

People living with HIV are no longer as sickly as they used to be. It is therefore now possible for a HIV positive individual with a very high viral load and therefore highly infectious to appear healthy.

This has shaped the attitudes that young women have as well as their own perceptions of being at risk of infections. Surveys have shown that young women are still more fearful of an unplanned pregnancy than HIV.

But there are other factors that have served as obstacles to the prevention of HIV among young women. Experts said that biology does not help. Teenage girls’ immature genital tract is more prone to abrasions during sex, opening entry points for the virus.

Experts were also quick to clarify that besides sex, the age of the male partner is a defining factor. “The trends are showing that HIV prevalence is high among women aged 15 to 24 and among men aged 35 to 45. This is because of the intergenerational relationships,” Chazara expounded.

The age of the young woman herself is also a factor. Women who had their first sexual encounter before the age of 15 years faced twice the risk of getting infected with HIV.

Importantly, experts belabored the point that interventions are in the pipeline to address the needs of young people in the prevention, care and treatment of HIV.

According to Dr Irene Mukui of NASCOP, “There is a lot of discussion and focus on the youth to figure out how to prevent new HIV infections, to ensure those infected are on treatment and that they have good treatment outcomes once they start taking antiretroviral drugs (ARVs).”

With experts drumming support on increasing awareness and knowledge of HIV prevention among young people, these efforts are bearing fruits.

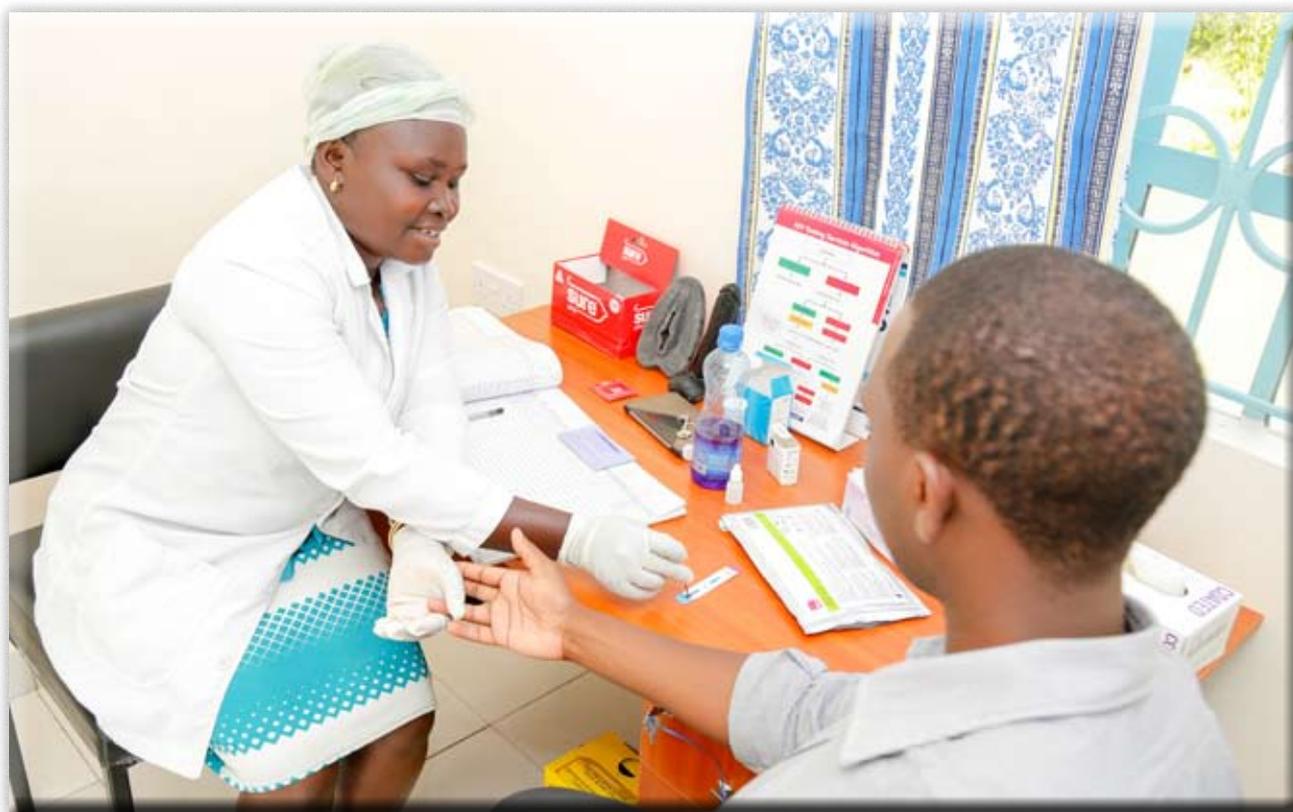
Nonetheless, more young men than women have demonstrated adequate knowledge of HIV prevention.

In the Kenya Health and Demographic Survey (KDHS) 2008, an estimated 48 percent of young women and 55 percent of young men “demonstrated adequate knowledge of HIV prevention compared to 73 percent of young women and 82 percent of young men in 2014.”

There is still no consensus on teaching young people about HIV and sexual health. This remains a debatable controversial issue with the most recent KDHS 2014 finding that an estimated 40 percent of adults were “against educating young people about condoms” for fear that it might be taken as encouragement for them to have sex.

Such fears and controversies notwithstanding, the figures have spoken and raised the alarm. Without urgent and young people tailored interventions, the HIV prevalence among young people will become the epidemic.

# Booths draw Siaya men to test for HIV



**Monica Auma Mito, a counsellor attends to a man at a HIV test booth in Dienya Health Centre in Gem sub-county, Siaya County in western part of Kenya**

**By Christine Ochogo I** [christawine@gmail.com](mailto:christawine@gmail.com)

**S**tephen Otieno, 26, from Bondo in Siaya County, western Kenya, is one of the few men aware of their HIV status, thanks to a visit he recently made to the newly established HIV Testing Service (HTS) booths at Bondo sub-County Referral Hospital.

The booth, in Bondo, is one of the 120 put up in public health facilities in the County, courtesy of Centre for Health Solution - Kenya (CHS), a health partner with Siaya County government.

Otieno says it feels comfortable visiting the HTS booths given the privacy

and the warm reception one receives from the counsellors at the booths. "I have now become a frequent visitor to the booths in Bondo after every three months without fear since the booths are strategically placed near the gate where I easily enter without being seen by anyone," he said.

The youthful Otieno is just among many others who now find it comfortable to test for HIV after Centre for Health Solutions - Kenya saw it prudent to improve the quality of health services to local communities in Siaya by introducing the booths.

The newly installed HIV Testing Service booths are expected to result in improved patient care and address the county government's health objectives on HIV care and treatment thus reduce incidents to zero new infections.

Centre for Health Solutions – Kenya, Chief Executive Officer, Dr. Paul Wekesa, acknowledges the support they received from the US President's Emergency Plan for AIDS Relief (PEPFAR) through the US Centers for Diseases Control and Prevention (CDC) to support the Siaya County Department of Health in the provision of comprehensive HIV Prevention, Care and Treatment services.

This includes identification and treatment of people living with HIV in line with the UNAIDS 90-90-90 goals aimed at achieving HIV epidemic control.

He confirmed that the model of the booths is unique in nature and that they are strategically placed in all the 119 health facilities CHS supports in the six sub Counties within Siaya namely; Gem, Ugunja, Ugenya, Alego/Usonga, Bondo and Rarieda.

Dr. Wekesa told Sayansi that the booths which mainly target men offer privacy and the working hours for the services are also extended in order to cater for the working class and the fisher folk.

He further stated that the booths are meant to encourage men to go for testing since majority of them have poor health seeking behaviour besides fearing to be seen as they visit testing facilities.

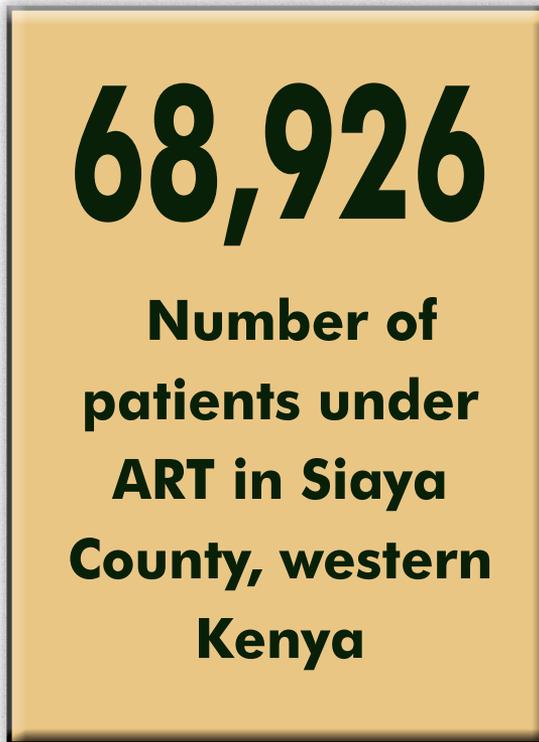
“Women frequently visit facilities and are always tested without fear and now with the HTS booths, men can now comfortably visit without being seen thus reducing stigma by about 50 per cent as indicated in Siaya County HIV and AIDS Strategic Plan,” Dr. Wekesa said.

Monica Auma Mito, an HTS counsellor at Dienya Health Centre in Gem Sub County, says that since the introduction of the booths, there has been an increase in the number of men who get tested at the facility. Currently they receive between seven and ten men in a day up from a maximum of five during peak days but during days when there is little farm work, they receive as many as 10 to 15 men. This, according to her, is an indication that men seem to be changing their mind set about testing.

Dr Wekesa added that they are in the second year of the project and as at July 2018, they had provided over 1.5 million HIV tests (including re-tests) in the county.

“Of this number 17,461 individuals were found to be HIV positive, and 6,958 put on life-saving treatment hence in total, we have put 68,926 patients under Antiretroviral Therapy (ART) in Siaya County,” he disclosed.

He stressed that these ambitious targets can only be achieved by having a conducive working environment to deliver high-quality health services to those who need them.



In addition to the HIV Testing Service booths, CHS through the support of CDC has also spent over USD 1.8m to renovate nine health facilities (renovations included Comprehensive Care Centers (CCCs), Laboratories and Pharmacies) within the county. The CCCs are special facilities within hospitals that care and offer services for HIV and tuberculosis (TB) patients.

Some of the facilities where CHS is working in include, Yala sub county hospital, Othach dispensary,

Ndenda dispensary, Kaluo dispensary, Matibabu Ukwala clinic, Bar Agulu dispensary, Bar Sauri dispensary among others.

Siaya County is ranked position four in terms of HIV prevalence which is at 24 per cent against the national average of 6 per cent. This is after Homa Bay, Kisumu and Nairobi, according to Kenya HIV estimates 2015.

The provision of free HIV testing services see to it that clients visiting the HTS booths, get tested and also receive free medical check-ups as part of promoting overall wellness of each person that visits this facility.

The County government maintains that given that the government is concerned about the high HIV prevalence, they seek interventions by opting to partner with CHS to prevent loss of lives due to HIV.

The County Executive Committee Member for Health in Siaya (Minister) Dorothy Owino regretted that the young and vulnerable adolescents have become the new target for HIV infection.

With the partnership and continued support she says they target to reach out to more clients revealing that currently the county attends to about 68,000 HIV

patients out of the possible 120,000 who should be put on treatment.

Siaya County is one of the counties in the former Nyanza region in the Southwest part of Kenya. It borders Busia County to the North, Kakamega and Vihiga County to the Northeast, Kisumu County to the East and Lake Victoria to the South.

It has a population of 842,304 as per the Kenya National Bureau of Statistics 2009 census and a population density of 33 people per square kilometer.



Ms Ivy Gidoti, a young PrEP user says that poverty is a major impediment in the fight against HIV among the youth

## Stigma and side-effects slowing PrEP adoption

By George Juma | [jumageorge10@gmail.com](mailto:jumageorge10@gmail.com)

**T**he idea of providing an antiretroviral (ARV) medication as pre-exposure prophylaxis (PrEP) to prevent acquisition of HIV infection by persons at high risk is now well established.

However, the full public health impact will be realized only when PrEP is implemented effectively at scale.

The UNAIDS has projected delivery of PrEP to 3 million persons by 2020 while the National AIDS & STI Control Program (NASCO) projected upto 500,000 persons on PrEP by 2022 according to the national Framework for Implementation of PrEP in Kenya issued in 2017.

Data from UNAIDS 2013 show that over 7000 young women get new HIV infections contract globally every week.

Despite having oral PrEP and other researches being conducted to get more forms of the vaccine which can satisfy the taste of users, the oral vaccine has not been utilized maximally because of arrays of factors including peer pressure, inaccessibility of PrEPs to users among others.

Josephine Nyaboke (not real name) a PrEP user champion in Migori County says issues regarding

the packaging of Prep, peer pressure among other remains some of the major challenges she is facing when championing for PrEP use among the youths and the adolescent.

She said other side effect of PrEP on users at the early stages of use has also made many of her clients to abandon the pill.

Nyaboke who currently has 47 clients introduce to the vaccine that she monitors every month to ensure that the drugs adherence level is met also said that delay in the issuance of PrEP at the health facilities has discouraged many of her clients.

The perception of many has been that the PrEP is only used by Key population which includes sex workers, discordant, truck drivers and men sleeping with men, however this is not the cases.

Nyaboke said she started using PrEP in 2017 after having felt at risk of contracting HIV due to the long distance relationship she is in adding that her boyfriend and the parents accepted her proposal.

During this year's AIDS 2018 Conference in Amsterdam four weeks ago, PrEP was arguably the dominant subject with far more sessions devoted to it than any other topic and will probably also dominate the HIV Research for Prevention (HIVR4P) Conference in Madrid from October 21 – 25, 2018. This is a global scientific meeting dedicated exclusively to biomedical HIV prevention and research.

Kenya has made significant progress in the reduction of new HIV infections in the past decade through the scale up of comprehensive HIV treatment and prevention programs including PrEP. Despite this progress, over 70,000 Kenyans mostly aged 15-24 get new HIV infections every year. The story is the same across most of sub Saharan Africa where numerous PrEP initiation programs started in the last year. So far, Kenya has initiated PrEP in about 25,000 people at risk – but retention is a big problem.

Scientists suggest there could be several potential barriers to effective PrEP implementation that could derail the program if not addressed urgently. According to Dr. Dismas Oketch from the Kenya Medical Research Institute, there are anecdotal reports about stigma to PrEP use, lack of knowledge of and access to PrEP, skewed expectations from PrEP adopters, side effects as well as shame and hesitation to demand PrEP; which could negatively affect retention and adherence to PrEP.



Speaking to Sayansi in August in Kisumu during a science café organized by MESHSA and AVAC, Dr. Oketch further

**Kenya has made significant progress in the reduction of new HIV infections through the scale up of comprehensive HIV treatment and prevention programs including PrEP. Despite this progress, over 70,000 Kenyans mostly aged 15-24 get new HIV infections every year.**

reiterated that there could be some disconnect between what PrEP providers intend for PrEP and what what PrEP users want from PrEP leading to those who were initially enthusiastic about PrEP

withdrawing from it. Ideally, PrEP use is not for everyone and should be limited to individuals at risk and during periods of higher risk when other HIV prevention alternatives are not sufficient.

He says the current trend shows that many people are not using PrEP as expected because of various reasons which they scientist continue to investigate. "Side effects and stigma remain the two most important reasons for PrEP discontinuation." Despite these threats, Dr. Oketch believes "it is far much better individually, principally, socially and economically to prevent HIV than to treat a life-long infection of HIV/AIDS." As a result the KEMRI is exploring other alternatives to PrEP delivery than the daily oral pill. This new PrEP pipeline will include long acting injectable PrEP, PrEP implants and PrEP intravaginal rings.

.Latest research conducted by non governmental organization, IMPACT Research and Development Organization (IRDO) in Kisumu early this year shows that sixty four percent of potential PrEP users would prefer the injectables.

According to Dr.Kawango Agot is a researcher working with the IRDO, the research which involved commercial sex workers also revealed that 21 percent of potential PrEP users prefer oral tablets while only 15 percent prefer the intravaginal ring.

In the study, Dr.Kawango said the sample group was placed on injectable, pills and ring Preps all placebo for a period of one month each to established the experience and taste of each participant.

Mrs Josephine Odoyo,a researcher with the Kenya Medical Research Institute (KEMRI) at Lumumba centre in Kisumu county, says PrEP users have been giving a lot of feedback regarding the size of the pill, colour and even packaging of the pill.

The feedback they have been receiving from nearly 2000 users of PrEP, have occasioned new researches to see that the drugs is user friendly.

# How PrEP advocate has braved stigma

By Ruth Keah I rkeahkadide@gmail.com

**C**lad in a blue top with embodied pink flowers, a pink skirt, Ms Salma Nzaro, a 27 year old business lady from Mtwapa, embodies the face of a courageous lady.

One of first born twins, she took me through her journey in using Pre-exposure prophylaxis (PrEP) with an untold ease for a woman her age.

PrEP is a pill taken daily by people who are not infected with HIV but who practice unprotected sex hence are at a substantial risk of getting infected. It helps keep HIV infection at bay if the user adheres to instructions by the health personnel administering it.

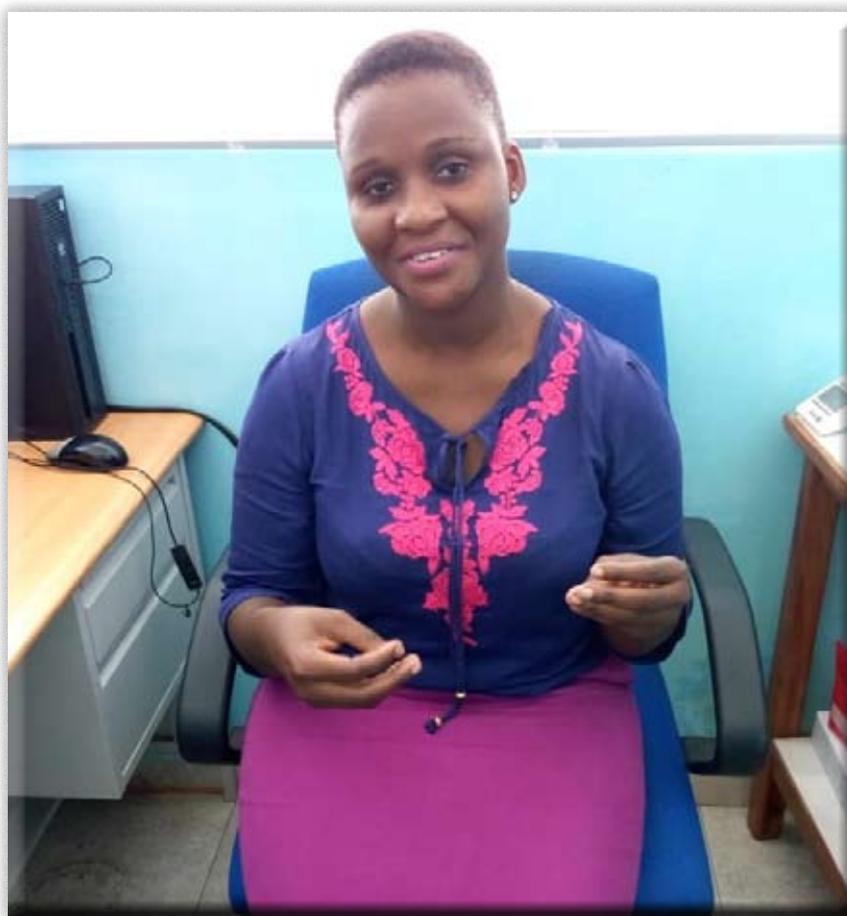
It is somewhat different from ARVs, which are taken by those already infected, but the stigma associated with these two is the same.

The stigma, however, does not shake Salma, who started using PrEP seven months ago an inch.

With the stigma she faced right from her close friends, she narrates to this writer how she overcame stigma and used it as a tool to educate her friends and peers on the importance of taking PrEP therapy.

Her decision to use PrEP came after a visit to a health centre in Mtwapa Township, located 20km North of Mombasa where she was sensitised on how to use PrEP. To her, the lesson at the health centre made her examine the comparative advantage of PrEP the condom as a method of protection. She chose the former.

Of the four partners she has, one has been tested for HIV and she knows his HIV status. But she still has to take precaution since they do not stay together.



"Since I don't have one sex partner, I saw the use of condom was not effective since sometimes I tend to engage in sex without it, that's why I thought PrEP would be a better option for me," she notes.

All was not rosy when she started using it. Despite bouts of nausea, vomiting and weakening of her body, her persistence to use the pill was reinforced by more sessions of counselling from the health centre.

"Actually, the first day I started taking the tablets, one of my best friends who came to visit me saw me with the drugs

went around spreading rumours that I was HIV positive and dying," she says.

"But I didn't take that offensively. Instead, I took it as a chance to educate her and my peers about PrEP and ARVs since my friend was ignorant about PrEP." In the end, she too visited the clinic, was counselled and sensitised on the use of the Pill though I am not sure she has begun to use it," she concludes, her eyes betraying her sense of confidence.

Ms Nzaro gives talks and shares her experience as a PrEP user in a number of youth forums. She calls herself an

ambassador of goodwill, spreading the message to over 40 youths who always gather at the centre every Thursday and share their experiences and the challenges facing those taking PrEP.

Her wish in future is to become a well known ambassador in Kenya and reach a wider population to teach them on the importance of taking PrEP.

She is also happy with the way men have received the idea and tells me she knows of more men on PrEP than women.

She has extended the campaign to her sex partners, saying that currently, she is talking to them to have them get tested and also be introduced to using PrEP, a move which she hopes will one day bear fruits.

With the education and information she shares with the community, she says the stigma which faced those taking PrEP since it was introduced has reduced drastically.

She urges the media to take more initiative in educating the community about PrEP, adding that her wish is "to see zero newly infected persons with HIV."

Ms Nzaro says she lost three of her close relatives to AIDS and she felt the pain they were going through and yet they could not get any cure, giving her enough reasons to start using PrEP. She visits the centre monthly for restocking of her prescription.

"But I wish one day scientists will come up with a vaccine which will help control or cure AIDS, taking tablets all your life and yet you are not sick is not only not healthy but also cumbersome," she opines.

She dismisses claims that with the use of PrEP there will be increased incidences of Sexual Transmitted Diseases and instead says the struggle of looking for cure of those affected with AIDS is more painful than for curing the Sexually Transmitted Infections.

# Experts: PrEP is not a magic bullet



**By Ruth Keah I** [rkeahkadide@gmail.com](mailto:rkeahkadide@gmail.com)

**E**xperts in Mombasa have given PrEP a clean bill of health but warn that the use of the Pill is not the magic bullet against HIV.

Ms Rahma Rashid, a health officer who coordinates STI and HIV activities in Mvita Sub county, Mombasa County, Kenya says they have rolled out the programme of educating people about PrEP mostly to key populations who are at risk of being infected with HIV virus.

Mostly targeted are commercial sex workers, discordant partners, men having sex with men, and youths. She says since they started the programme, it has been taken positively especially by the discordant partners.

She says the biggest challenge for those seeking the services is stigma and discrimination especially among men having sex with men and sex workers who feel shy to ask for health services because of the nature of their work or lifestyle.

According to Ms Rashid, Mombasa is risky for girls to easily be lured into sexual activities.

"Because Mombasa is a tourist destination, young girls are in danger of being exposed to sexual activities at an early age hence creating more need for peer education about HIV and STI," she says.

She admits that there is still need for stakeholders to come together and give more education to the community to know more about PrEP so as to reduce the new infections which stands at 8 every day in Mombasa County.

The same challenge of stigma and discrimination is also experienced in Kisauni Sub County, Mombasa County, according to Jackline Tsuma, who also coordinates STI and HIV activities in that area.



She says most of the community believe that PrEP is for sex workers and men having sex with men. More information needs to be rolled out to the community to support the programme and remove the notion that PrEP is for a specific group of persons.

Dr Griffins Manguro, Director of International Centre for Reproductive Health in Mombasa, says PrEP is not for everyone and hence should only be taken on recommendation by a qualified health professional.

“Individuals who perceive themselves to be at risk should visit a healthcare facility for a HIV test and have a discussion with the healthcare provider,” he advises, adding that the tablets were commissioned in Kenya in early 2017 by National AIDS and STD Control Programme (NASCO), with Kenya being the second country in Africa after South Africa to allow PrEP to be used as prevention strategy for HIV.

When taken as prescribed, PrEP can reduce the risk of contracting HIV by up to 90 per cent.

According to Dr. Manguro, the number of people living with HIV in Kenya is about 5-6 per cent with variations in different counties in Kenya.

**Individuals who perceive themselves to be at risk should visit a healthcare facility for a HIV test and have a discussion with the healthcare provider**

He says currently in Mombasa County, about 2,000 - 4,000 people use PrEP, while in Kilifi and Kwale counties about 1,000 people use PrEP in each county as from February 2017 to March 2018.

He adds that PrEP is an additional strategy to HIV prevention, which he says gives hope to women who don't know their partners' status. This is because women are not empowered enough and ask their partners to use condoms during coitus.

He admits that the uptake of PrEP is fairly low since it is a new innovation, but he hopes that with time the uptake of PrEP will increase.

Different strategies are being used by the government to increase the uptake by increasing the number of outlets of PrEP and advertisement.

He says drug providers have been trained and it is available for use on prescription only to reduce the chances of the drug being abused.

Speaking at a recent Media Science Café organised by MESHA, the experts, however warned that PrEP is not a magic bullet, and must be taken in combination with safe sex practices like use of condoms. Moreover, after a month on PrEP one requires further screening to check levels of the drug in their blood and to check if they contracted HIV while on the drug.

# 15 years and counting: Researcher's relentless charge against HIV

**D**espite the difference in opinion about the statistics on HIV/AIDS in Nyanza, the concern of scientists in the region is much focused on how best to treat and reduce new HIV infections.

**Mr. Arthur Ogendo, a Senior Research Officer working for Kenya Medical Research Institute Centre (KEMRI/CDC) in Kisumu, Kenya gives an insight on how they are rolling out the fight against HIV/AIDS even as the search for cure continues. Mr Ogendo has for the last 15 years, dedicated his life to researching on how his own people from Nyanza can participate in eliminating HIV from the face of the earth using people based solutions.**

**Our member, Christine Ochogo of Radio Nam Lolwe, recently met the ever smiling researcher in Kisumu during our eighth media science café and fielded the following questions to him.**

## **Tell us about yourself.**

I am Arthur Ogendo, a senior Research Officer at KEMRI/CDC Kisumu, The organization hosts various research on areas of Malaria, TB, HIV and other infectious diseases. I am a public health specialist currently working in the epidemiology and health research.

## **Kindly tell us more about the researches you have participated in on HIV.**

KEMRI and CDC established a HIV Research Branch in 2000. The branch started with two major studies, one conducted in Asembo, Siaya County



**Mr Arthur Ogendo: Five years ago, we undertook a study that looked at whether early initiation of ARVs treatment would reduce the risk of HIV transmission among HIV sero discordant couples**

and another in Kisumu County both in western Kenya.

The research in Asembo was a Baseline cross sectional survey (BCS) that took a look at HIV infection prevalence and the one in Kisumu was known as Kisumu Breast feeding Study (KiBS) that majored on how to prevent transmission of HIV virus through breast feeding amongst women who are lactating before and after delivery.

## **What are the finding on the two studies?**

In Asembo, the research revealed that there was high prevalence of

HIV Infection of 15% as at 2003.

However, this has since reduced due to concerted efforts on behavioral and medical methods being initiated in the region.

In Kisumu the research informed Prevention of Mother to Child Transmission (PMTCT) Policy that mothers can be put on triple ARV for PMTCT was safe tolerable and efficacious . ART was administered to mothers before they deliver and continue with the drugs after delivery to protect the child from being infected with HIV virus through breast-feeding.

### What other studies have KEMRI/CDC conducted in relation to HIV?

Between 2010 and 2013, we did a study that looked at whether early initiation of ARVs treatment would reduce the risk of HIV transmission among HIV sero discordant couples. The study was sponsored by US national Institute of Health (NIH).

Participants were placed onto into two groups, one being on survivors whose CD4 cell count was at above 550 per ml and those whose CD4 count was at 250 per ml or below as per the national guidelines on ART initiation at that time (2010).

We found out that those who started Antiretroviral Therapy (ART) early when their CD4 cell count was high, had more health benefits and the risk of cross infecting their partners reduces by 96%. This was considered a scientific breakthrough.

This has now informed the WHO and Government of Kenya's health ministry to adopt a 'test and treat' policy where infected individuals begin ART treatment immediately irrespective of their CD4 count, to reduce the risk of HIV transmission.

### What about the study on vaccines and drugs?

We are coming up with a number of interventions to help in prevention and further spread of HIV/AIDS which include Voluntary Male Circumcision, use of vaginal ring, pills (Truvada), a pilot vaccine, implants among others.

Currently we are conducting a study on antibody mediated prevention (AMP) study. Vaccines are intended to induce immune responses (antibodies) in the body system but sometimes this is a slow process and may not be effective against the HIV virus. Antibodies are proteins produced by the body to fight germs in the blood. Therefore we are looking whether infusing antibodies directly into the blood would prevent HIV virus from

attacking the white blood cells. This study is targeting about 80 participants who we will be followed up for four to five years.

We in CDC/KEMRI are also focusing on long-term pre- exposure



**Arthur with Dr Eunice Omollo pose for a photograph after meeting health journalists in Kisumu recently**

prophylaxis (PrEP) for the population of young women. We are looking at superiority between Cabotegravir and Truvada as a PrEP. Carbotegravir drug has been proven to be effective among HIV-negative older women and it was time to investigate its efficacy in young women who are sexually active.

### What are some of the challenges you face in the fight against HIV?

Research is very expensive and we as scientists have been relying a lot on donor funding which is now decreasing.

We are now advocating for the County governments to consider allocating more funding to HIV programs to avoid over reliance on donors who are proving to be unreliable due to changing times and priorities.

### What role do you think the media can play in the fight against HIV?

The media plays an important role in dissemination of information and we scientist work best in collaboration with them to pass to the masses information on our progress in HIV research.

Why do scientists fear the media?

Scientists are sensitive to misfacts as reported by the media. We are accountable to our partners and collaborators fear being misquoted or misrepresented on our research be it on HIV or any other subject. This calls for consistent and responsible journalism to avoid interfering with the progress made so far as well as avoid misrepresentation of scientific facts. We abhor the media to consult with us when not sure as they do articles because fact checking helps readers and listeners to get the correct information.

### What is your patting shot?

Everybody is at risk of contracting HIV and the fight against the virus need concerted efforts from all people despite the County or region or country one comes from.

The society needs to be informed more about HIV on prevention and proper management in a bid to have a HIV free generation to come.

Scientists are still searching for a vaccine that may one day prevent infection of HIV/AIDS infection and they are hopeful that the vaccine will soon be available. In the meantime, everybody has the responsibility to prevent HIV transmission but embracing behavior change and seeking treatment as necessary.

The perception and impression that those who hail from counties or regions where HIV prevalence is low are at less risk of contracting the virus is a misconception.



Girls recite a poem against FGM during graduation of an alternative rite of passage on November 12, 2016 organised by Adra-Kenya at Ikerege in Kuria West after they refused to undergo FGM

# Youth enlisted in anti-FGM campaign

By Manuel Odeny | [manuelodeny@gmail.com](mailto:manuelodeny@gmail.com)

**C**atherine Meng'anyi, a daughter of an elite father - a politician and a rich businessman, was circumcised without her knowledge by a medical doctor in her teenage years way back in mid 1990s.

The location? The city Nairobi, nearly 550km away from her village in Getong'anya, Kuria West, near the border of Kenya and Tanzania. Poor Catherine did not know she had been circumcised and only came to know that what she thought was sickness was indeed the cut when she got married.

"I thought I was sick and was undergoing treatment, I later realised I had passed three circumcision seasons because our dad was busy in the capital. He was lucky that the medic, a woman, was also from Kuria like us," she narrates.

It was later that she joined a nursing school that she realised the extent of being circumcised and at 31 she has vowed never to allow her two daughters to undergo the same process.

"My biggest worry is that as pressure is mounting on traditional circumcisers with anti-Female Genital Mutilation (FGM) laws, parents are going underground and find medics as the best option," she says.

She was among youths from across the country brought together at a conference in Ikerege village, Kuria West to help in ending the vice within a generation in early August.

"Despite being a religious community and most people from Kuria being law abiding, the irony of open end celebrations during cultural circumcision is hard to ignore,"

Natalie Robi, an activist with Msichana Empowerment Kuria which hosted the conference says.

The first conference of Kenya Anti-FGM Youth Network, was flagged off by Agnes Pareyo, the chairperson of Kenya Anti-FGM Board.

Pareyo said they have been supporting the network of youths as they have the biggest potential of change in future.

"The FGM rate in the country stands at 21.8 per cent, to have the vice abandoned within generation we count on youths who are themselves parents and above all next generation elders who will make important cultural decisions," Pareyo said.

The board said elders and older generations have been making the biggest decisions on FGM, and are

hardest to change but youths being future elders are best placed to change the vice.

"Through the youth network, we have a group of opinion shapers who will take up after their elders to stand against cultural impunity," Pareyo said.

Adan Mulato from Marsabit county says with prevailing change, globalization and culture change youths stand the best chance to end FGM.

"We are future elders, who will be called upon to make cultural decision on FGM. We stand to be elders who will go against the vice, as current ones have been slow on that," Mulato says.

And the impact of youths across the globe against FGM is shown by Rose Kerubo's research (2010) in Helsinki, Finland called 'Female Genital Mutilation - Effects on Women and Young Girls for Diaconia University of Applied Science.

Kerubo followed immigrant women circumcised from Sudan, Somalia, Kenya and Ethiopia and they all agreed that "female genital mutilation is illegal because it causes pain, violates human rights and health of women and put girls life at risk."

Mormon Comfort in his book 'Female Genital Mutilation' in 2005 says youths are the main group to change FGM since "culture is learnt and children learnt it from adults," so the next generation children should have their parents, current youths, to change the perception.

According to World Health Organisation's 2008 'Female Genital Mutilation Fact Sheets no 241' which can be accessed online in their website, FGM causes death because of over bleeding, extreme pain and trauma caused by cutting.

The research based on 28,000 participants said women who undergo FGM have painful sexual intercourse, complications in labour that often lead to caesarian section, painful periods and urine retention.

Sahodia Mohammed, a youth from Tana River county and a mother of three girls underwent FGM without her will and can attest to negative effects.

"Most communities still circumcising their girls know it is illegal before law and God, it is only myths which fuel the vice. Youths are the best voice against myths as we have first hand experience on why it is bad, and won't allow our daughters to," Mohammed says.

Her colleagues Catherine Mocha and Alice Mosinte from Narok county have formed a group of Maasai girls who contribute money from personal saving to help and mentor other girls who have resisted the cut.

The Kenya Demographic and Health Survey points out that FGM has decreased in the last decade with the last survey in 2008/09 placing it at 27 per cent of women had undergone from 32 per cent in 2003 and 38 per cent in 1998.

But among tribes, 97 per cent of Somali women have undergone the cut followed by 96 per cent in Kisii which is the same as Kuria and they are followed by Maasai at 93 per cent.

The University of Nairobi interviewed 120 households in Gachuba division in Nyamira county and found that 74.2 per cent of women has undergone circumcision, with 76.2 per cent of them doing so willingly.

The researcher Everline Moranga in 'Factors influencing the practice of Female Genital Mutilation in Kenya' said the biggest number of those doing so willingly is because most Kenyans know it is illegal.

"91.1 per cent participants knew it was illegal, only five per cent said it wasn't with the rest not being aware," the research states with over half of them, 48.5 per cent getting information from anti-FGM messages and 45.5 per from personal experience.

Peter Gwengi, the director of Lake Victoria Initiatives (Lavin) says there is already evidence that all communities know how illegal the vice is.

"As activists we are moving away to target younger generations to safeguard the future, we often target school going children and youths out of school," he says.

His organisation is organising health clubs in over 50 primary schools in Kuria and Maasai communities bringing on board young boys and girls to fight the vice.



## African Conference of Science Journalists (ACSJIII)

12 - 14 November, 2018, Ngong Hills Hotel, Nairobi

# Mesha members win big in recent awards

By MESHA Reporter

**T**he light shone bright on MESHA at this year's Reach Out Media Awards held in Mombasa last month.

The awards which aim at awarding health journalists who play a big role in highlighting the drug menace at the coast for their efforts in transforming the society towards achieving Vision 2030 and the Big Four

agenda saw Dominick Mwambui, a MESHA member emerge among the top.

Mwambui who works for Radio Kaya won the Best Broadcast Media award for his story on the impact of Methadone clinics in Kwale and Mombasa Counties.

"I did not expect to win the award; it came as a surprise to me. It challenges me to continue doing quality science stories," says Mwambui.



**WINNER: Dominick Mwambui from Radio Kaya, Mombasa**



**CHAMPION: Ms Ruth Keah of Radio Rahma, Mombasa, Kenya**

**A**nother member from the Mombasa chapter, Ms Ruth Keah from Radio Rahma has won the overall best story in the Africa Reporting Disasters Award held at Laico Hotel, Tunis last Friday, October 13, 2018.

The awards were organized by Disaster Risk Reduction Network of Journalists, a professional association of journalists in Africa interested in disaster and sustainable development reporting. In her story called Skeletrn River Voi, she demonstrated how due to climate change and human activities, the river had dried up. She highlighted the challenges the people living around the river were going through and interventions by environmentalists to educate the community on mitigation measures that could help the situation.

**O**n her part, NTV journalist Zeynab Wandati won the Best Conservation Agriculture Journalist award 2018.

In a tweet shared by Nation Media Group (NMG), the company congratulated Ms. Wandati for winning the prestigious award in the 2nd Africa Congress on Conservation Agriculture awards held in Johannesburg, South Africa last Monday.

The Business Journalist's win comes barely two years after she was awarded the A.H Boerma Award, an award that is given to celebrate journalists who have successfully steered public attention towards food security topics.

Ms Wandati sits on the MESHA board and has been very crucial in connecting the association to various partners.

Sayansi and the MESHA Board, have already sent the winners congratulatory notes for a job well done. According to the Chairperson of MESHA, Ms Violet Ofindo, the threesome win outlines the quality of engagements that MESHA has built over her 13 years of existence.

Coincidentally, in July, three MESHA members, Gardy Chacha of the Standard, Doreen Magak of NTV and Ms. Maryanne Waweru-Wanyama, Blogger-Mummy Tales and Maternal Health Advocate were feted feted with various prizes at the MERCK media awards for excellence in health journalism. During the July 9 event held in Nairobi, the First Award from the Print Media Segment



**TRIUMPHANT: Zeynab Wandati of NTV**

was received by Mr. Gardy Chacha, Senior Health and Science Reporter from Standard Newspaper, Kenya and a very active MESHA member. He was selected for his soulstirring story named 'Cecilia Wairimu: One woman, Three marriages, 11 years of Infertility'. He walked away with USD 1500.

# William the banana restores Malawian farmers' hope



**Banana plantation: An outbreak of a virus is may bring doom to cultivation of the crop in Malawi**

**By Kelvin Tembo |** [kelvintembo5@gmail.com](mailto:kelvintembo5@gmail.com)

In Malawi's northern district of Nkhata Bay, banana, one of the traditional crops is facing extinction. This is due to the outbreak of Banana Bunchy Top Virus (BBTV) which is spreading fast due to climate change.

Thanks to the Adapt Plan project, hope now lingers in the horizon to help maintain cultivation of this crop through promotion of a new improved variety know as William.

When his one and half hectares banana orchard was wiped out by

Banana Bunchy Top Virus (BBTV), life became unbearable for 49-year-old Lameck Phiri from Chiphazi Village in the area of Traditional Authority Mkumbira in Malawi's northern district of Nkhata Bay.

Growing bananas was his sole income earner that had cushioned him against food shortages. The outbreak of BBTV robbed him of a livelihood.

"Following the loss of my banana orchard, I started struggling with life to the point that feeding and educating my nine children became a nightmare," Phiri explained during a visit to his area.

"I tried to find other sources of income in vain. I replanted the field but the bananas failed to survive as they were attacked again by BBTV," he said.

Phiri was not alone in his predicament. The outbreak of the virus resulted in the majority of farmers losing their bananas, one of their traditional crops important for both food security and income in mountainous Nkhata Bay.

Banana, which ranked sixth in Malawi (after maize, rice, groundnuts, vegetables and beans) in terms of food security and income generation, has been facing a drop in production across the five major banana producing districts of Mulanje, Thyolo, Karonga, Nkhata Bay and Chitipa thanks to BBTV.

In 1999, banana registered a sharp increase in production with a harvest of 300, 000 tons from 93, 000 tons in 1998 according to a study by Food and Agriculture Organization (FAO) of the United Nations.

Production continued rising and it reached its peak in 2009 and 2010 harvesting about 400, 000 and 410, 000 tons respectively. However, since 2010 the country started registering a drop in



**Traders line up bananas in an open air market: In Malawi, a project has been launched to help maintain cultivation of this crop through promotion of a new improved variety known as William.**

production such that as of 2013, Malawi harvested 386, 345 tons.

In Nkhata Bay alone, hectares under cultivation of banana have dropped from 2500 hectares to 640 hectares according to Nkhatabay District Agriculture Development Officer Yaz Nyirenda.

“Besides a drop in hectares under cultivation, yields have also dropped. Previously yields per hectare would hit 30 to 50 tons but this time round yields range from 20 to 30 tons per hectare, a development that has resulted in many communities dependent on bananas to struggle in order to make ends meet,” Nyirenda said.

Lucky enough their struggles may soon be a thing of the past following the launch of the Adapt Plan project by the Department of Environmental Affairs in the Ministry of Natural Resources, Energy and Mining with support from United Nations Development Programme (UNDP).

The project aims at strengthening awareness and ownership of adaptation and climate change risk reduction processes at local level. Various initiatives

**5,800**  
**Number of households targeted on banana project**

are rolled out as part of empowering communities economically to reduce the vulnerability of rural communities to the adverse impacts of climate change in Malawi.

About 5,800 households are targeted by the project which uses community based adaptation approach to identify economic empowerment initiatives that

communities can participate in. This allows them to choose an initiative they feel can help build resilience and adaptation.

Some of the initiatives of the project include crop diversification, fish farming in fish ponds, bee keeping, irrigation using solar systems and livestock farming. Local communities are involved through clubs.

The project will help maintain cultivation of this crop through promotion of a new improved variety known as William.

The launch of the project in Nkhata Bay has provided Phiri and other 16 community members of the area (who organized themselves under the Umoza ndi Nthazi Nursery Group) with William, an improved banana variety.

William is a cultivar of the Giant Cavendish type in the Cavendish subgroup. It is one of the most widely grown cultivars in commercial plantations and is tolerant to the virus.



**Transporting banana: In some instances, cross border trade has been a source of banana diseases in Africa**

"We were given 200 suckers of bananas for seed multiplication and we planted a demonstration field as a group where we have multiplied the variety with the expertise we acquired to around 300," Sambandopa Mphande, Chairperson for Umoza ndi Nthazi Nursery Group said.

Umoza ndi Nthazi is one of the 20 nursery groups the Adapt Plan works with in the BBTV management where 2000 BBTV free bananas have been planted in the district.

According to Davie Siyame, the Agricultural Extension Development Coordinator (AEDC) for Nkhata Bay Extension Planning Area (EPA) this is a newly introduced variety that is being grown with prospects for replication in other fields by farmers and can withstand certain pests and diseases.

"This variety is an asset in maintaining banana cultivation and it is helping in adaptation process. Currently, we already have some members that have started replication by having their own fields to raise funds for their households," Siyame said.

Phiri is among the farmers with replica fields. He has already planted 40 bananas out of the 200 seedlings he wants to plant. He says he is slowly overcoming the challenges brought about by the outbreak of BBTV.

"I am back in business. From the time I joined the group and planted my replica field it has been a success because prior to it I never thought I will have something to depend on again, since my banana field was ravaged," he said.

The Deputy Director of Environmental Affairs, Michael Makonombera says that as countries transit towards climate-resilient sustainable development, the UNDP is assisting them to prepare for and build resilience to the impacts of climate change through the Adapt Plan.

"This project originates out of recognition that without significant climate change adaptation efforts, the risk posed by climate change will undermine years of development assistance and asset accumulation in Malawi," Makonombera added.

"Some of the direct climate change impacts being addressed through the Adapt Plan include prolonged dry spells, floods and increased incidence of crop and livestock diseases."

"What we are trying to achieve is give these communities options. Economic empowerment is crucial to building resilience; we know that due to climate change, communities are affected in many ways and we believe once communities are economically empowered, they will resist these effects," he said.

With resource constraints, Makonombera admits it will be difficult to reach out to communities across the country but hopes the success stories recorded under the pilot phase will be replicated by other farmers or communities across the country.

"We cannot reach out to everyone due to resource constraints but we hope that people can learn from these pilot sites in Nkhata Bay," said Makonombera.



**Dr Prasanna Boddupalli, Director of the CIMMYT Global Maize Program, Nairobi**

# CIMMYT releases 15 new disease-resistant maize varieties

**By Aghan Daniel | [aghandan09@gmail.com](mailto:aghandan09@gmail.com)**

**A** centralized maize lethal necrosis disease screening facility established jointly by the International Maize and Wheat Improvement Center (CIMMYT) together with Kenya Agriculture and Livestock Research Organization (KALRO) in 2013 at Naivasha, Kenya, has enabled release of 15 MLN-tolerant/resistant maize hybrid varieties in Kenya, Tanzania and Uganda.

According to Dr Prasanna Boddupalli, Director of the CIMMYT Global Maize Program, based in Nairobi, Kenya, the

facility has so far intensively screened over 150,000 maize germplasm entries over the last five years.

The CIMMYT team also discovered and validated genomic regions in maize conferring MLN resistance, and then transferred MLN resistance into 30 elite, Africa-adapted inbred lines that were MLN-susceptible. This whole process was completed in just three years, using molecular marker-assisted breeding.

While addressing participants at the CIMMYT Annual Partners Field Day at the MLN Screening Facility on 19th

September, Dr Prasanna added that intensive multi-institutional and multi-disciplinary efforts over the last 5 years have contributed to limiting the presence of the MLN disease in eastern Africa, with no further spread in the last four years to any other country in southern Africa or West Africa. However, he added, that all the stakeholders should continue to keep vigil, and ensure that the disease is further curbed and Africa's most important staple food crop, maize, is protected from the MLN disease through collective action.

Photo Credit|AGHAN DANIEL



**Ms Ann Wangui of CIMMYT demonstrates how a MLN test is done using immunostrips**

According to the Secretary General of the African Seed Trade Association (AFSTA), Mr Justin Rakotoarisaona, the MLN resistant varieties will go a long way in cushioning farmers against massive losses attributed to the disease not just in Kenya but all over Africa with the exception of Southern Africa.

According to the 2014 Survey on MLND by Kenya Agricultural and Livestock Research Organization about 78,000 hectare of maize crop was affected by MLN leading to loss of over 11 million bags equivalent of \$330 million.

He added that several seed companies are now implementing voluntary MCMV control programs and standard operational procedures to minimize the risk of seed transmission. He warned that MLN still persists in the region though the incidence has reduced in some countries (e.g Kenya, Rwanda

and Uganda), but still high in areas with continuous maize cropping in these countries. He also noted that MLN is still present in some seed production fields,

and hoped that with the adoption of the resistant varieties, the disease will soon be eliminated.

Mr Gerald Masila, Executive Director, Eastern Africa Grain Council, said that MLN is prevalent in most countries in Eastern Africa. He added that the MLN disease can destroy entire harvests of maize and is thus a severe food security risk in the region and threatens the livelihood of millions of farmers. Trade linkages between Eastern and Southern parts of Africa also exposes the latter to the risk of 'importing' the disease from the former.

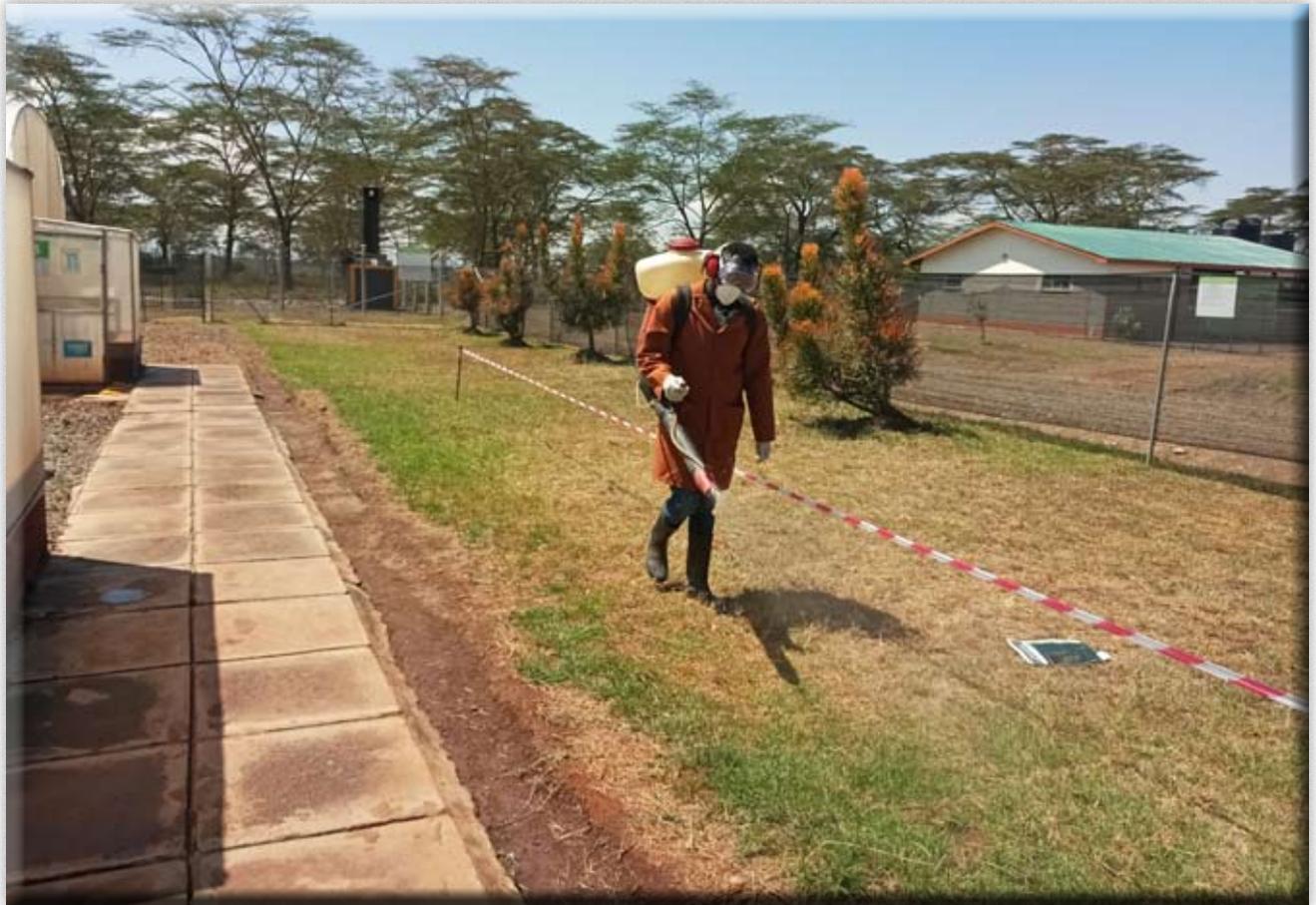
"This new development by CIMMYT answers to our call for an urgent action to develop MLN-resistant maize varieties and formulate robust policy frameworks to tackle the pandemic," he told Healthy Nation.

MLND is a maize viral disease caused by the co-infection of Maize Chlorotic Mottle Virus (MCMV) and any of the Potyviruses infecting cereals, especially Sugarcane Mosaic Virus (SCMV). It causes yield losses of up to 100 per cent and is a threat to food security in Kenya, Uganda, Tanzania and all the other endemic countries.

Photo Credit|AGHAN DANIEL



**Scientists scrutinize the kit used to test for maize lethal disease during a field visit**



A technician at CIMMYT demonstrates how they spray chemicals against some viruses

# Farmer cooperatives' partnership with researchers yields new seed varieties

By Christine Ochogo | [christawine@gmail.com](mailto:christawine@gmail.com)

Over 50 seed producing cooperative across 20 countries in West and Central Africa have improved access to quality seeds.

This is according to a new study by the Access to Seeds Index, supported by Agence Française de Développement, the Government of The Netherlands and AgriCord.

The study further reveals that strong performers of seed-producing

cooperatives were identified in four countries including Senegal, Mali, Burkina Faso and Niger.

The situation in eight other countries – Benin, Cameroon, Côte d'Ivoire, Democratic Republic of Congo, Guinea, Liberia, Sierra Leone and Togo can be characterized as promising.

In four countries – Gabon, Ghana, Guinea-Bissau and Republic of Congo - no seed-producing cooperatives were identified that are formally recognized or may be in the near future.

The farmers led cooperatives have the capacity and are now delivering the new varieties of seeds developed by research institute into the hands of farmers since the seeds can withstand the challenges of Climate change.

"This is relevant as modern plant breeding has led to an acceleration in the development of new varieties that can help farmers deal with the effects of climate change such as increased weather variability and the introduction of new pests and diseases," says Yacouba Diallo.

In 1980s and 1990s farmers led cooperative moved into seed production when the seed sector was privatized and this saw many countries to renew their national seed laws.

The situation created opportunities for these cooperatives to become formally recognized as certified seed producers in the 2000s.

The study observed that with the new seed laws, cooperatives in the region can also be formal seed sectors and not just seed companies.

This has enabled performers to partner with national and international research institutes to test and select varieties that meet the needs and preferences of local farmers.

Some have scaled even beyond borders to advanced levels of seed production, producing hybrids or early generation seeds which they distribute at national scale or even beyond borders.'

**The study observed that with the new seed laws, cooperatives in the region can also be formal seed sectors and not just seed companies.**



**A technician demonstrates how seeds are sprayed against diseases. Cooperatives are helping to improve access to quality seeds in Africa**

"Seed cooperatives are able to dispel the perception that that they multiply basic seed sourced from research institutes, distributing these among their members," says Diallo.

Madda Ben in Niger is one such example where its members not only work together with global research agency International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) in participatory variety selection, variety testing and demonstration in field schools but they also produce foundation seed for ICRISAT's Seed Unit.

So far, four new millet varieties have been introduced as a result of this cooperation. Through contracts with seed companies, its certified seed reaches farmers throughout the country.

The study also found that the relevance of cooperatives also lies in their presence and portfolio. In countries like Sierra Leone and Liberia or Borno State in Nigeria, where not many seed companies are active, cooperatives are the only suppliers of certified seed.

The top 5 crops covered by cooperatives include groundnut and cowpea, not often found in the portfolio of seed companies.

Seed-producing cooperatives in Western and Central Africa are based on the leading cooperatives in each country. However, experts have raised concerns about the financial stability of the sector and although the sector seems to be on the rise, more than inspiration will likely be needed to deliver on its potential.

# Support biotech, seed companies urged



**Mr Somtinda Kafando, a technician at FAGRI Seed Company in Burkina Faso inspecting their farm in the outskirts of Ouagadougou**

By **Aghan Daniel I** [aghandan09@gmail.com](mailto:aghandan09@gmail.com)

**T**he President of the Association Nationale des Entreprises Semencieres de Burkina Faso (ANES – BF), Mr Issaka Kolga, has called on seed companies in the country to support biotechnology projects currently being undertaken by researchers in the country.

Mr Kolga noted that it was high time the seed companies closed the gap between them and scientists to provide smooth adoption of the technology in the country.

“Our voices must be heard as we strive towards to full adoption of the technology by telling the scientists what we want them to do and not vice versa. We must have a private sector need driven research so that we own the technology,” he added.

Mr Kolga was addressing a one day seed traders meeting held in Ouagadougou over the weekend. He noted that during his tenure, he will work closely with the technology developers and seed regulators to ensure that relevant technologies were introduced

in the country so that the seed agenda remains a Burkinabe one not a foreign one.

The Vice President of the Association, Mr Leopold Zinsonne, who is the Director of Entreprise de Production De Semences Agricoles dans le Boulgou (EPSAB) said that his members must now, like never before, state what they are going to do to truly demonstrate their acceptance of the technology. “We must adopt the technology to close the gap between us and the big producers from other parts of the world. The global gap is too wide and the technology gives us in Africa a better opportunity to close in on them,” he added.

The President urged his members to work hard and emulate the Ethiopian scenario where the private sector worked with the government behind the scenes and passed their agenda to the leadership of the country which in turn decided not to listen do debates and disparaging discussions on the GM technology. The result?

In an effort to improve agricultural productivity and safety, Ethiopia has approved the commercial cultivation of genetically modified (GM) cotton and field research on GM maize.

The two crops have been genetically engineered to include genes from *Bacillus thuringiensis* (Bt), a common soil bacterium that is widely used to control insect pests in organic agriculture. Breeding pest resistance into a crop significantly reduces the need to apply pesticides during cultivation, while greatly improving yields.

A representative from the Ministry of Agriculture, Mr Sakande Issaka told the ANES-BF members that the ministry has already put in place measures which help them monitor the demand for certified seed. He gave the example of the potato where he noted the government had not received any request for certified seed which they said they have. He noted that very few companies do multiply the crop. He however said that on the flipside, they are looking for companies which can multiply clean planting materials for cassava. In the recent past, he added, the government trained 30 vegetable farmers. He informed the seed companies that they had a budget from the government to support seed companies through ANES-BF.

The coordinator of Open Forum on Biotechnology (OFAB), Dr Edgar Traore, who co-hosted the meeting with AFSTA, noted that henceforth, they will include ANES-BF in the Network of Biotechnology and Biosafety for Parliamentarians, Network of Plant Breeders in Burkina Faso and another slot would be reserved for them in the Network of Biotechnology Communicators, a move that was welcome by the members present in the meeting.

# mAgri links farmers to best prices, advice

**A** Botswanan start-up is breaking the barriers to digital technologies for rural smallholder farmers.

Brastorne Enterprises, a winner of CTA's 2016 Pitch AgriHack competition, operates a mobile platform called mAgri to improve farmers' access to information, markets and finance.

mAgri is a USSD (unstructured supplementary service data) based platform, which can be used on any mobile phone. The app has included underserved communities in the remote villages of Botswana by connecting them to a communication ecosystem at an affordable cost.

Through the platform, which merges several mobile technologies, farmers can find a market to sell their products, but more importantly, interact and share ideas. At a cost of €0.75 (9 pula) per month, subscribers to the platform can access information on market prices, weather and best agronomic practices. Soon they will also have access to financial services and insurance cover via the mobile platform.

"We have taken a mobile phone and turned it into a trade platform," says Martin Thato Stimela, managing director of Brastorne Enterprises.

## What the Hack

In 2016, Brastorne Enterprises was invited to take part in CTA's Pitch AgriHack competition. The competition is designed to develop the business services offered by young ICT4Ag start-ups. The mAgri app emerged as the winner from a group of 25 finalists under the early stage category of start-ups at the Pitch AgriHack final, held in Kenya in 2016.

Naledi Magowe, Chief Marketing Officer of Brastorne Enterprises, says Pitch AgriHack's hands-on approach to training helped her company to fine-tune its pitching of business ideas to prospective investors. The training also helped the company to understand what financiers look for in start-ups that they want to fund.



**Youths are key in the use of a mobile platform called mAgri which aims to improve farmers' access to information, markets and finance.**

"Since Pitch AgriHack, we have not done things differently, but smarter and more effectively," says Magowe, who participated in a training boot camp as part of Pitch AgriHack. "During our mentorship session it was highlighted that we needed to expand and we are basically working towards getting out of Botswana and into other countries."

Conferences and workshops, which Brastorne Enterprises have been invited to by CTA, have also been strategic to our business, says Magowe. At the 2017 Social Good summit in Geneva, the company met with business development executives of the multinational telecommunications corporation Orange, who helped map out Brastorne Enterprises' plans for scaling up its services by rolling out new features to improve the mAgri service. The ICT start-up has a strategic partnership with Orange Botswana, which has given them access to a large pool of potential users.

Other networking opportunities have availed from CTA's support for the advertising of mAgri through radio and SMS campaigns.

## Forty-one new jobs created

Brastorne Enterprises invested part of the €7,500 prize money from Pitch AgriHack into a marketing outreach programme to grow more subscribers on the mAgri platform. Following Pitch AgriHack, Brastorne Enterprises has grown the mAgri service targeting 8 villages in Botswana with a particular focus on women.

"In mAgri we have created a mobile application based on actual market perspective that enables farmers to cheaply communicate trade and interact with each other, as well as with markets for their produce," said Magowe. She said the company has created 23 fulltime jobs, which will increase to 41 by the end of August 2018.

"Brastorne is becoming a model for young entrepreneurs and they have helped us illustrate to other youths how to design a successful business model, due to the unique value proposition of their product," says CTA's Senior ICT4Ag Programme Coordinator, Ken Lohento, commending the mAgri services.

Connecting the unconnected farmers "With our platform, subscribers have an internet application. The secret sauce was adding a chat platform. We have 500,000 people on our platform and 100,000 loyal monthly subscribers. We are adding 500 people on the platform every day."

Stimela, said while it is difficult to measure the impact of mobile applications, CTA is planning to help the company to evaluate usage of the mAgri app. "We have built a community of people and an ecosystem. It has helped traders reach a market they never had before," Stimela said. "Over 80% of users are youths and they are interacting with agriculture for the first time on our platform."

# Global data-driven push to boost small holder farmers' productivity

By Sayansi Correspondent

In an unprecedented effort to harness the power of data to boost the productivity and livelihoods of the world's 500 million small-holder farmers, a coalition of donors and low-income countries have pledged to seek significant funding for agriculture statistics across 50 countries in Africa, Asia and Latin America by 2030.

The effort will drive a new era of targeted solutions to food production challenges bound to increase sustainable production by smallholder farmers in the face of climate change and population growth is key to end extreme poverty and progress toward "zero hunger."

The commitment, one of the largest ever investments in collecting data for agricultural development, comes in the wake of new alarming numbers that hunger levels have risen for three consecutive years, and sends a signal that the development community is committed to ensuring its interventions lead to results.

The initiative dubbed "50 x 2030" launched on September 24, at an event on the sidelines of the United Nations General Assembly, is an ambitious effort to conduct regular surveys of farming households in 50 low- and lower-middle-income countries by 2030.

The effort seeks to make the data, combined with other information sources, widely available to guide governments to make evidence-based decisions to increase agricultural productivity



**Farmers admire a maize plantation: Accurate data are key in agriculture**

sustainably. The 50 will likely include 30 from sub-Saharan Africa, 10 from Asia, and 10 from Latin America and the Caribbean.

Accurate data are key to helping these countries take the lead in their own agricultural growth and development progress. Donors are contributing to the initial data collection efforts, but the 50 countries will co-finance the initiative over time.

"We're witnessing today a fundamental transformation of food systems in developing countries, with rising incomes, changing consumption patterns and the

emergence of more business-oriented small- and medium-scale farmers," said Laura Tuck, Vice President for Sustainable Development at the World Bank. "By making agricultural data more readily available in 50 low-income countries, we can help accelerate this transformation, to boost sustainable food production and allow farmers to thrive."

Two well-established surveys—the Integrated Surveys on Agriculture (ISA) that is part of the World Bank's Living Standards and Measurement Study (LSMS), and the AGRISurvey from the UN Food and Agriculture Organization

(FAO)—will provide the foundation for the initiative's data collection efforts. Experts from the World Bank and FAO will supervise much of the technical work.

Basic agricultural data—such as the different crop varieties farmers are planting, how much they are harvesting, and their access to inputs and financing—are often missing in developing countries. But these insights can have a big impact on productivity and incomes. For example, for years, agriculture experts were puzzled by the fact that, in an area of East Africa with plenty of grazing land and surging consumer demand, milk production on small, family-run dairy farms was stagnant.

In 2014, a detailed survey conducted with the assistance of the World Bank revealed that production was stymied by a lack of veterinary, breeding and other basic livestock services. These needs were addressed via government programs and production soon began rising.

Recent assessments of available agriculture data show that, in sub-Saharan Africa in particular, basic statistics from the farm sector are often incomplete or unreliable. Only two out of 44 countries in the region are deemed to have high-quality agriculture data.

For example, in 2006, there were three competing estimates of maize yields per hectare in Malawi. In Tanzania, estimates of maize yields in 2003 indicated they had plummeted from 3,000 kilos per hectare in 2001 to 755, but with no indication of why they dropped so precipitously. Such confusion can leave the many different players in the agriculture sector—including governments, donors and agribusinesses unsure about where to devote their resources, as evidence pointing to either problems or opportunities is either unavailable or unreliable.

"Kenya welcomes the cooperation shown today, to work with 50 countries in supporting millions of smallholder



**Picking tea: Experts say lack of farm-level data is impeding effective interventions that could stabilize food security.**

farmers," said Hon. William Ruto, Deputy President of Kenya. "Through our Big 4 Agenda, we are committed to achieving food security and job creation through agriculture, and we know that better data is the key to driving our transformation and growth."

Recent efforts to collect better agricultural data on smallholder farming have revealed its value. Uganda and Tanzania have used the results of more rigorous agriculture surveys to make changes to extension programs, which led to measurable increases in farm productivity. In Malawi, new survey data revealed where and by how much flooding caused by the El Niño weather pattern reduced crop yields. It also provided insight into the impact on household diets. These findings have helped government officials produce a much more targeted disaster response strategy.

With hunger rising after years of decline, experts say the lack of farm-level data is impeding effective interventions that could help reverse this particularly challenging moment for food security. For example, climate change is a known factor, but its impact can vary

considerably from country to country and even farm to farm.

Just as good data have significantly improved global health interventions, data can also drive more effective agriculture solutions, particularly as efforts accelerate toward achieving the second of the United Nations Sustainable Development Goals (SDGs), which includes pledges to end hunger worldwide, achieve food security, improve nutrition, double smallholder productivity and promote sustainable agriculture.

The Data to End Hunger event featured a storytelling segment from The Moth's Global Community Programme, featuring first person human interest stories on data and agriculture.

Key partners on the initiative include the United States Agency for International Development (USAID), Government of Australia's Department of Foreign Affairs and Trade (DFAT), Government of Germany's Ministry for Economic Cooperation and Development (BMZ), World Bank, Food and Agriculture Organization of the United Nations (FAO), International Fund for Agricultural Development (IFAD) and Bill & Melinda Gates Foundation.

# Time to deliver demographic dividend in Africa



**Matters with numbers: Most African countries experience population growth. This growth places a significant strain on resources and services such as education, jobs, and healthcare**

**By Evans Chumo**

For the most part, sub-Saharan African countries have very youthful populations. Actually, all ten of the world's youngest populations are all in Africa. Niger is both Africa's and the world's youngest country, with an average age of 14.8 years. Uganda follows closely behind Niger as the world's second youngest population, with an average age of 15.8 – just a year older than Niger. Mali buttons up the top-three bracket with an average age of 16 years.

These astonishing numbers are a result of changing patterns of childbearing and mortality in Africa. Decades of very high fertility – the average number of children per woman – in Africa,

combined with rapidly declining child mortality have created a population age structure dominated by young people under the age of 25 years.

Until recently, the average African woman was expected to give birth to 6.5 children over her lifetime. Now, she might have 5.1 children on average, although this does not represent the massive heterogeneity across various countries on the continent. In Kenya, Mauritius, and Botswana, for example, the typical woman in these countries has fewer children on average but in countries like Niger and Uganda or among less educated rural poor women, change in fertility has been minimal, if any.

This youthful African population has often been hailed as being a

major advantage to the continent, especially as the 'graying' of national populations is taking place in countries with more advanced economies such as Germany, Japan, and Finland, where their populations are increasingly being dominated by older people. An increase in Africa's working-age population presents a crucial opportunity for its accelerated economic growth. This growth, often referred to as the demographic dividend, occurs when the working population outnumbers children and the elderly, freeing up economic resources as a country's labour force grows faster than the population that is dependent on it.

## Africa rising?

However, the spike in Africa's youth populations is a two-sided coin. For the optimist, the demographic shift is compelling and plays into the 'Africa Rising' narrative, with the demographic dividend presenting a possible way out of cyclic poverty in their children's lifetime.

For the pessimist, the numbers are unsettling. There were 1 billion Africans in 2010, and there'll be 1.4 billion more by 2055. What kind of future is in store for another billion plus African people? The answer to this very much depends on the policies that African governments undertake to ensure their populations receive quality education, affordable and quality health care, decent jobs, and so on.

The demographic dividend is neither guaranteed nor is it automatic. Instead of reaping a demographic dividend, African countries may find that their youthful populations are a barrier to growth and development.

This is especially if they maintain the status quo and do not initiate policies that take into consideration the short and long-term implications of this population on basic and critical services, e.g. education and healthcare. In this case, the window of opportunity to realise this economic benefit may pass by as is the case for countries like Tunisia and South Africa.

## The struggles of Uganda's youth

The findings of a year-long study examining the changing youth demographics in four East African Community (EAC) countries – Kenya, Uganda, Tanzania, and Rwanda – launched at a Kampala forum in July revealed that the window of opportunity for these countries to harness their dividend is open from now until 2080 or 2100.

Uganda, however, stands out in stark contrast as the country with the highest rate of fertility within this group, and it's not declining fast enough either. Uganda's fertility rate has reduced by only 2 children per woman over a thirty-year period, to the current 5.4 children average.

The study attributed Uganda's high fertility to the early onset of childbearing and marriage, the low socio-economic status of women, low levels of female education, poor access to contraception, especially among rural women and youth, and socio-cultural norms that place preference on women having many children.

The reality is that most of Africa is taking too long to catch up with the rest of the world in terms of reducing the rate at which their populations are growing. Further, policies and sustained actions that draw from these policies have an impact on population growth.

The large variations in populations across countries on the continent are caused by factors such as levels of education, access to employment opportunities, urbanisation, access to health care, including family planning

methods and attitudes towards population growth. These factors aid in explaining why, for example, Uganda's population is growing faster than Kenya's or Botswana's. Women have fewer children when they marry later, start families later, and use modern methods of family planning. Further, infant deaths have reduced in countries that have better education, healthcare, nutrition, transport systems and immunisation.

Uganda has several policies developed in response to its growing youth

**Uganda's fertility rate has reduced by only 2 children per woman over a thirty-year period, to the current 5.4 children average.**

population. Some of these include its National Youth Policy, the 2nd National Development Plan (2015-2019) and Uganda's development blueprint, Vision 2040. All acknowledge the double-edged nature of a large youthful population to the country's future development prospects and propose strategic interventions that, if implemented, have the potential to influence the socio-economic trajectory of the country, and place it onto the path towards a sizeable demographic dividend. A common thread among Uganda's policies on youth, population and development is the recognition of the need to provide quality sexual and reproductive health services to ensure youth make informed decisions about their

sexual and reproductive health. However, to the extent that Uganda still experiences challenges such as teenage childbearing, poor access to contraception, and HIV being the leading cause of death, is indicative that the government's policies have not been effectively implemented.

Uganda is not unique in many regards. In most sub-Saharan African countries, social attitudes towards sexuality and family sizes are not changing much, and therefore, African governments have to do more to provide incentives for their populations to use modern contraceptives. To ensure success, however, governments and other stakeholders must ensure that conversations on family planning are sensitive to socio-cultural norms.

African governments should also invest in education infrastructure to meet the needs of the growing school-age population, and introduce interventions that will improve the quality and relevance of education. This is to ensure students are equipped with skills that match labour market needs. An enabling environment for the private sector is also vital for economic growth. Therefore, governments should increase the range and quality of strategic infrastructure, such as energy, transportation, and information communication technologies, so as to ease the cost of doing business and attract direct foreign investments.

Uganda's population will keep growing, as will that of most African countries. This growth will place a significant strain on resources and services such as education, jobs, and healthcare. All things considered, the price of inaction for African countries is simply too great, as uneducated, unskilled, unemployed, and deprived youth can also become agents of social unrest, crime, and violent extremism. Countries, therefore, need investments in these critical sectors urgently, if the prospects for a demographic dividend are to be a reality.

# The African Seed Trade Association (AFSTA) Congress 2019

4<sup>th</sup> March - 7<sup>th</sup> March 2019  
at Pride Inn Paradise Hotel,  
Mombasa, Kenya

## Don't Miss!!

### Registration Information:

The registration fees for the congress 2019 are as follows:

	AFSTA Members	Non-AFSTA Members
1. For delegates:		
• Before 31 <sup>st</sup> Jan. 2019	US\$650	US\$900
• After 31 <sup>st</sup> Jan. 2019	US\$700	US\$975
2. For Spouse/Child of delegates:		
• Before 31 <sup>st</sup> Jan. 2019	US\$250	US\$300
• After 31 <sup>st</sup> Jan. 2019	US\$300	US\$350
3. For Kenyan civil servants:		
• Registration fee	US\$ 325	
4. Onsite registration will attract an additional fee of 30% of the registration fee for all categories of delegates, exhibitors and spouses as below:		
AFSTA Members	US\$ 910	
Spouse/Child (member)	US\$ 390	
Non Members	US\$ 1,270	
Spouse/Child (non-member)	US\$ 450	

Register online by visiting the AFSTA website [www.afsta.org](http://www.afsta.org) for more details.



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