# SCIENCE SAYANSI

#### Telling the African science story

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## Experts decry men's TB burden amid survivors' stories of pain

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

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

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

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

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

### SAYANSI

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#### **Cover Photo**

Wendy Nkirote Mwirigi, National Coordinator, Public Private Collaborations, Human Rights and Gender-National TB Programme at the Ministry of Health, Kenya.

Photo Credit: MESHA



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#### Editorial

## Why all eyes are on men in TB case finding and treatment

ow do you react when someone coughs or sneezes in public? Well, be careful how you react, as you do not want to cause stigma. Instead, you may want to protect yourself against TB. In this edition of 'Sayansi', we tell the story of a woman who suffered ridicule and rejection, not from public, but from her family after she contracted TB and tested positive for HIV. She had hoped family would help, albeit emotionally, but they left her for dead at a hospital in Nairobi. But she lived to tell a different story.

Yet there is more than stigma, which worries stakeholders in this health matter. According to World Health Organisation's 2023 Tuberculosis Report, TB claimed 1.3 million lives globally in 2022. The report says at least 10.6 million people suffer from TB worldwide, of which 5.8 million are men, 3.5 million women, and 1.3 million children.

In Kenya, for instance, this large number of men with TB are aged between 25 and 44, the country's biggest source of labour. But why the higher prevalence of TB among this gender? Experts say that men are more likely to be in places where their risk of contracting TB is higher. Worse still, they have poor health-seeking behaviours.

A man, even with clear symptoms such as cough, fever, drastic weight changes, night sweats, and bloody sputum, would rather seek over-the-counter treatment than go to hospital to be tested. Others, sometimes due to work schedules, wish to visit hospitals after work, but few health facilities operate beyond normal working hours, especially outside the cities. Some men test when it is too late. In this edition, we tell the story of a Kenyan man who delayed visiting the hospital and almost died in his house in an informal settlement in Nairobi, even when it was clear to everyone around him that he had TB symptoms. The trauma followed him to the hospital, where he was confined with suspected COVID-19 cases, who also suffered extreme stigma.

Health experts say the only way out of this quagmire is to employ a gendered approach. In Malawi and Kenya, for instance, there are concerted efforts to encourage men to be screened for TB, despite challenges in health sectors, including inadequate human resources, funding, drug supply, and equipment.

Health professionals and other stakeholders in the two countries have intensified Active Case Finding of TB patients who visit health facilities and in the communities. Tactics employed include door-to-door campaigns, and working with formal and informal healthcare givers to prompt patients who visit them even for non-TB illnesses to be screened and tested.

Africa stands at a pivotal crossroads in the battle against TB, with urban areas offering sources of livelihood to many poor, yet they also have high TB prevalence. Statistics from the Kenyan government show that TB claims at least 32,000 lives annually, a number that stakeholders want drastically reduced. This is also considering that Kenya is one of the 30 countries that bear 80 per cent of the global TB burden.

Since no one happily contracts a disease like TB, the stories in this edition of 'Sayansi' focus more on solutions. As health experts put it, provided you are breathing, you risk contracting TB. The good news is that TB can be cured.

Lynet Otieno

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Health professionals and other stakeholders in Kenya and Malawi have intensified Active Case Finding of TB patients who visit health facilities and in the communities.

## Survivor: It took hope, then love to rise from rock bottom after TB and HIV diagnoses

#### Steve Mokaya I stevewebsmtz@gmail.com

anet Mageta, 32, calmly walks to the podium, rests her hands on the two sides of the lectern, and pauses. A few minutes later, she lifts her head and her gaze sweeps across the packed room, a motley crew of journalists, health workers, and government officials. It is Thursday afternoon in Nairobi's Westlands, and the hotel conference room is buzzing with anticipation.

After a gentle adjustment of her glasses, Janet greets her audience. Her voice is clear and steady, but carries a hint of vulnerability. She begins her story, a tale of heartbreak and resilience, and the room is silenced.

Janet tells how she contracted HIV, TB, and meningitis, a devastating combination that shattered her marriage and nearly drove her to despair. She describes the stigma and discrimination she faced from people she thought were her closest.

"My journey with TB started with stigma and discrimination from my relatives and my ex-husband. At some point, I lost self-esteem and all I wanted was to die," she says.

One day she got so ill that she was taken to Kenyatta National Hospital. It is there that she was diagnosed with meningitis and TB. The doctors would later call her parents to take care of her, but when they arrived, they shocked her. Photo Credit |MESHA



Janet Mageta, when she addressed journalists and health stakeholders at a science cafe in Nairobi, where the burden of TB in Kenya was discussed.

"They told the doctor: "It's okay, we have seen her and all we can say is this: If she dies, we won't lack a place to bury her". Then they left, never to be seen again," she said, tears welling her eyes. "So I was abandoned at the hospital."

The diseases took a toll on her. She turned blind. Her condition worsened and she lost her mind too. She began to exhibit violent tendencies that made her to be tied to her hospital bed.

But then, a glimmer of hope shone. The Aids Healthcare Foundation paid her hospital bills and took her to a private facility. There Janet began to emerge from the shadows. Her sight returned, albeit partially, and her mind cleared.

Eventually she regained her strength. She rose from her bed, reborn, a testament to the power of hope and resilience. Now, she stands as a beacon of hope, leading others to recovery. She is a TB and HIV educator.

Health experts attending the MESHA science café at the hotel in Nairobi's Westlands lamented that the Kenyan government had for the last couple of months neglected the TB patients by not procuring testing kits and drugs, thereby putting patients' lives at risk.

Evaline Kibuchi, the Chief National Coordinator at Stop TB Partnership Kenya, said Kenya had recently been faced with stock-outs of crucial TB items, including the gene experts cartridges, whose shortage, she said, had lasted a year. Due to the shortage, she said, "we are relying on the old microscopy, which is not sensitive enough and cannot detect drug-resistant TB."

Besides the TB testing kits shortage, Ms Kibuchi said there had also been a long time shortage of TB drugs, lasting about six months.

However, in a later interview, Ms Kibuchi said: "We are now glad because yesterday (November 7, 2023) the drugs were procured and distribution began." She said the first batch of 27,000 packs were already being distributed. She said they were promised that the next batches would arrive on November 16.

Ms Kibuchi said the stock could last up to March 2024, after which the regular supply of the drugs, which comes with a buffer stock of about nine months, is expected to resume uninterrupted.

Nonetheless, Ms Kibuchi said the six-month drug shortage was akin to creating a disaster. "Patients have been forced to share packs, and in other facilities, they are given for shorter periods. That means they have to return after just a few days to check if the drugs are there," she said.

She said the situation reduced adherence to treatment, increasing chances of drug-resistant TB. "We are also likely to see a rise in TBrelated mortalities. Definitely, we are going to lose the gains we have made in the fight against TB as a country," she said.



Participants at the science cafe called to discuss the state of Tuberculosis in Kenya.

Dr Lorraine Mugambi-Nyaboga, a TB specialist at the Centre for Health Solutions, Kenya, painted a sobering picture of TB in the country. Kenya is one of the 30 high-burden countries for TB globally, which are responsible for 80 per cent of the global burden. The disease is also the fourth leading cause of death in Kenya.

Dr Mugambi added: "TB actually ranks higher than HIV. Unfortunately, people keep succumbing to TB, a preventable, curable and treatable disease."

Statistics show that Kenya loses up to 32,000 patients to TB every year.

Of the many factors contributing to a surge in new TB cases, she said, stigma and the myth that every TB patient is also HIV positive rank high.

This myth, she said, is mostly attributed to the situation in the early 1980s, when HIV became very prevalent, and there was also an increase in TB cases. Consequently, people associated TB with HIV, yet it is not the case. "We conducted a prevalence survey in Kenya in 2016 to establish the burden of TB and established that 83 per cent of patients diagnosed with the disease did not have HIV," she said.

She added that data from NGOs and the Ministry of Health supported the findings.

Dr Mugambi said most TB patients were discriminated against at their workplaces, and some denied job opportunities even when they qualified.

She urged Kenyans to screen test for TB to enable early treatment.

Common TB symptoms include cough, fever, weight loss, night sweats, chest pain when coughing, or blood-stained sputum when coughing.

### Experts change tact to gendered approach in dealing with high TB cases among men

#### Photo Credit | MESHA



Walter Akhura, when he addressed attendees at the science cafe held by MESHA, the TB LIGHT Consortium and other health stakeholders in Nairobi in November 2023.

#### By Chemtai Kirui | phillykirui@gmail.com

alter Akhura once stood silent on the sidelines of the bustling heart of Nairobi, his days consumed by the demands of his office janitor job. He assumed his growing illness was a result of exhaustion. Evenings were a blur of alcoholfuelled camaraderie with his roommates, providing temporary relief from his discomfort.

For weeks, Akhura, 32, coughed relentlessly, and the fatigue never ceased. He downplayed symptoms until he found himself bedridden. The persistent voices of his two concerned neighbours shattered his denial. "You need to see a doctor," the women, who suspected TB, would insist.

Due to fear and misinformation, Akhura initially hesitated to seek medical help, haunted by the stigma associated with TB and HIV. He chose a herbalist, but the treatment proved ineffective. He begrudgingly made his way to the hospital. "I was waiting in the queue when a nurse appeared and shouted: "You don't need to be here!" She instructed that I be taken to the TB clinic. All other patients turned to look at me," he told 'Sayansi' at a science cafe that brought together doctors, researchers, rights activists and Media for Environment, Science, Health and Agriculture (MESHA) journalists in Nairobi.

His diagnosis arrived two weeks later. He had TB, an infectious disease caused by a bacterium called Mycobacterium tuberculosis, which primarily affects the lungs. The journey to seek treatment was tough. He disliked being attended to by female-only healthcare professionals. "The absence of male nurses at the facility made seeking help more uncomfortable for me," Akhura said, adding: "Enough times I would not say much when asked how I felt. My body fluids were discoloured and I feared I had contracted an STI. Discussing such issues with a female nurse was uncomfortable."

Soon a glimmer of hope emerged. An NGO operating the clinic he went to engaged him during one of his visits. "Their support and mentorship enabled me to accept my battle as a TB patient," Akhura said, appreciating that with time, training and support, he transformed into a survivor, armed with newfound knowledge and resilience. He still works with Stop TB Partnership Kenya as a trained Human Rights Advocate.

At the time of his TB diagnosis, Akhura resided in Kibra, a sprawling informal settlement in Nairobi. Conditions at the slums were ideal for TB transmission.

As one of the 133,000 known TB patients in Kenya in 2021, Akhura grappled with the burden of a disease that claims an estimated 32,000 lives annually, according to government statistics. The statistics also show that at least 42,000 TB cases are either missed or not notified.

And now there are concerns that TB is affecting more males than females in the country, especially in urban informal settlements. Research shows that TB thrives in congested environments. People living in urban informal settlements are at high risk of TB infection due to shared airspaces.

Wendy Nkirote Mwirigi, the National Coordinator, Public Private Collaborations, Human Rights and Gender-National TB Programme at the Ministry of Health, Kenya, says TB is the fourth leading cause of death in Kenya and that the country is ranked among the 30 high burden nations globally on TB and HIV.

#### Tuberculosis

The Kenyan government says one of the challenges it faces in addressing TB is that a substantial portion of cases seeking care do not receive timely attention during their initial contact with healthcare providers.

"Up to 42 per cent of individuals with respiratory symptoms initially seek care from private informal health providers, including spiritual healers. This further complicates the efforts to locate the missing TB patients," said Mwirigi.

Besides, she said, early diagnosis and symptom capture remain elusive, perpetuating the cycle of delayed treatment.

Evaline Kibuchi, the Chief National Coordinator at Stop TB Kenya, feared increased TB cases and more risks to health and well-being of patients if the drug shortage lasting six months by then was not promptly resolved. "Patients are forced to share their drugs. Some default on treatment, risking the development of multi-drug resistant TB," she said.

It did not take long before the government got supply and the situation handled.

Amidst these challenges, gender disparities in TB diagnosis and treatment have emerged as a pressing concern. "Men tend to react poorly to TB infection compared to females, making early detection and appropriate care crucial," said Prof Jeremiah Chakaya, a pulmonologist and CEO of Respiratory Society of Kenya (Resok).

"Men find it difficult to interrupt their workday to go to hospital. When they finally do, sometimes essential medications are unavailable," said Dr Leyla Abdullahi, a Senior Research and Policy Analyst at African Institute for Development Policy (AFIDEP). "This scarcity increases the likelihood of missed TB treatments among male patients," she added. Dr Lorraine Mugambi, the Chief of Party at Center for Health Solutions, shed light on the effectiveness of treatment protocols in Kenya. She said 85 per cent of TB patients receiving proper treatment successfully recover, showcasing the effectiveness of the existing protocols. However, drugs shortage and prevailing social stigma surrounding TB are significant challenges.

"The stigma associated with TB prevents men from seeking care," explained Dr Mugambi, adding that ignorance was a key instigator of TB stigma.

She said one in every three people in Africa was affected by the bacteria that causes TB, a key concern for a country that still stigmatises people who seek TB care. Janet Were, a mother of five and resident of Mathare, was, for instance, diagnosed with TB after discontinuing her HIV medication and falling seriously ill. She stopped taking the HIV medication due to stigma from close family members.

It was only when she suffered meningitis and was later diagnosed with TB that the gravity of her situation became clearer. "The treatment was so intense that I went blind," Were recounted, and added: "With little immunity, TB left me sick, weak, and fearing for my life. But I pulled through."

Today, Were, happy that she resumed medication, works with her husband and a network that brings together various CSOs in Mathare in Nairobi, to advocate TB and HIV care.

According to the 2023 Global Tuberculosis report by the World Health Organisation, 1.3 million people succumbed to TB in 2022 globally. About 10.6 million suffer from TB worldwide. They were 5.8 million men, 3.5 million women, and 1.3 million children. Scientists and health experts, under the Leaving no-one behind: Transforming Gendered pathways to Health for TB (LIGHT), a consortium of international, regional health research and policy organisations, have come together to champion gender-sensitive policies and ensure timely, effective TB treatment for all.

Dr Abdullahi said AFIDEP, an Africanled, non-profit research and policy institute, had started a communitybased peer-to-peer TB initiative for men. She said male TB survivors or healthcare workers could speak to one another on the importance of seeking TB screening and medication.

> Early diagnosis and symptom capture remain elusive, perpetuating the cycle of delayed treatment.

Now, with the announcement of a collaboration by the Global Fund, the Stop TB Partnership, and USAID on new ties with Danaher, a global science and technology innovator, would help reduce costs and increase access to ultradiagnostic test cartridges.

Akhura's experience, from the delayed diagnosis to the lack of male healthcare providers, underscores the need for global collaboration toward an inclusive and equitable approach to TB care. "My work will not stop until the healthcare system becomes more inclusive," Akhura told the gathering.

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### Policy gaps causing gender disparity in TB interventions

Photo Credit | AFIDEP



Some members of the LIGHT Consortium with the Malawi Deputy Health Minister Halima Daudi (right) during the 2023 World TB Day commemoration in Lilongwe.

#### By Catherine Tembo | cathytembo88@gmail.com

re there creative ways to reach men and encourage them to seek healthcare before they are too sick to be helped? This is one problem experts are grappling with, as new evidence shows that in Malawi, TB is now affecting more men than women, mostly because of habits.

A recent study by AFIDEP, under the LIGHT Consortium, uncovers that this disparity is also a result of unresponsive gender policies in TB interventions and programming. The study, which analysed the political, economic, and health dynamics of TB, uncovers that there are policy gaps in guidelines to achieve a gender-sensitive approach in the implementation of TB control programmes. Dr Benjamin Azaria Mosiwa, a research and policy associate at AFIDEP in Malawi, says the findings suggest that economic barriers are contributing to the slowdown in the fight against TB, as many countries have no specific budgets for TB programmes and rely on donor funds that go to the health sector.

"Our research indicates that TB is high among men because women have better health-seeking habits. Male participation in the TB fight is low, hence the need to come up with innovative approaches that specifically target men, such as integrating TB awareness messages in social activities such as football, which attract male audiences," he said. Mosiwa appeals for political will to mobilise domestic investment towards a genderresponsive approach in the response to TB.

"While the government of Malawi does a good job in development of a robust institutional framework that guides TB programing, there are persisting gaps to achieve a gendered approach in the TB programming," he said.

Samuel Chirwa, a TB and HIV expert at Malawi's National Tuberculosis and Leprosy Elimination Programme (NTLEP), however says despite the challenges, Malawi is on the right track, as witnessed by the milestone reduction of TB incidences and TB-related mortality.

"Current statistics show that there has been a 59 per cent reduction of TB mortality and a 37 per cent decline in incidence as compared to 2015 statistics," he said.

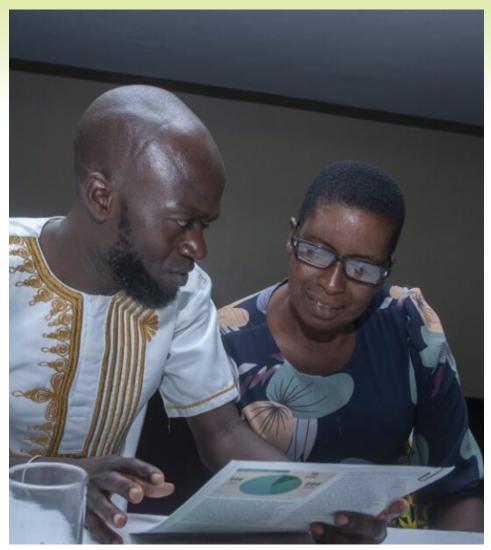
According to a paper by the TB LIGHT consortium, males account for 57 per cent of all TB cases in Malawi.

The LIGHT project aims to address this gap by providing evidence on the effectiveness of different gender-sensitive pathways and approaches to health for those with TB in urban, HIV-prevalent settings.

The six-year cross-disciplinary global health research programme funded by the UK government is led by the Liverpool School of Tropical Medicine, working with partners in Kenya, Malawi, Nigeria, Uganda, and the UK, including the African Institute of Development Policy (AFIDEP).

Upile Chinyada, a male volunteer at Paradiso TB Trust, a Malawian NGO advocating the rights of people with TB, has observed how many men shun TB screening.

#### Photo Credit | JOURNAIDS



Upile Chinyada (left) with a fellow member of Paradiso TB Trust in Malawi.

Chinyada, who also coordinates the organisation's activities in two central Malawian districts of Lilongwe and Mchinji, said even in situations where a man is diagnosed with TB, he does not appropriately take the drugs, increasing their chances of developing Multi-Drug Resistant Tuberculosis (MDRTB).

"Many men are reluctant to test for TB because of the stigma and discrimination attached to the disease. Even in a situation where they are screened for the disease and are on TB medication, some men hide the drugs from their wives," Chinyada told this writer. Chirwa, however, stresses the need for the country to come up with more surveys on its current TB status, as the current statistics are based on studies done in the past 10 years.

"Fresh findings will act as a guide to restructure our current TB strategies and develop more targeted strategies based on case findings," he said.

Notification of TB disease is more common in males than in females. In 2017, an average of 1.8 cases were notified among men for each woman globally. Understanding how and why the burden of TB differs by sex may contribute to finding and treating undetected TB cases in the community. As explanations for the excess TB cases among men, many propose that males have greater susceptibility to infection or more frequent opportunities for exposure. For instance, in most countries, men smoke more cigarettes than women, and per capita smoking rates explain roughly one-third of the variation in country-level male bias in case reports, perhaps due to toxic lung injury and reduced immune cell function, leaving them more susceptible to infection. Alcohol use is also identified as a risk factor for TB. as it may have immunosuppressive effects.

While the WHO TB prevalence figures indicate that men are more affected by the disease, experts are still researching why their health-seeking habits in relation to the disease are not impressive.

"Many men are reluctant to test for TB because of the stigma and discrimination attached to the disease. Even in a situation where they are screened for the disease and are on TB medication, some men hide the drugs from their wives," Upile Chinyada, volunteer at Paradiso TB Trust in Malawi.



Prof Jeremiah Chakaya, the Respiratory Society of Kenya CEO, speaking in Nairobi when health stakeholders, including MESHA journalists, met to discuss TB.

### Key patterns visible in disease prevalence among people of diverse ages

#### By Sharon Atieno I sharonphoebeatieno@gmail.com

ith tuberculosis (TB) affecting twice more men than women globally, experts are calling for a gendered approach to TB programmes.

During a Media for Environment, Science, Health and Agriculture (MESHA) science café cohosted by Leaving no-one behind: Transforming Gendered Pathways to Health for TB (LIGHT) Consortium in Nairobi, Kenya, more evidence on the gender disparities in relation to the TV were presented. Globally, TB is the second leading cause of death from a single infectious agent after COVID-19, with a reported 1.30 million deaths in 2022, according to the World Health Organisation (WHO)'s 2023 Global TB report.

Prof Jeremiah Chakaya, the CEO Respiratory Society of Kenya (ReSOK), LIGHT consortium, noted that from the first few years until the age of 14, there are almost equal number of boys and girls contracting TB. However, the difference starts showing in puberty, where boys become more affected than girls. The trend continues consistently until they reach age 65 and above, before the trajectory changes.

According to Prof Chakaya, this divergence is probably due to biological differences between men and women, which predispose men to be more affected.

Also, behavioural practices could be a significant contributor to the trend, as it is possible that the things men do versus the ones women do not do, may be influencing the difference in the notification, he said.

With men also registering poorer treatment outcomes than females, Prof Chakaya said the research was critical to identify the differences, factors leading to these differences, and the interventions necessary to narrow the gap so that there is a gendered approach to TB programming for care and prevention.

"If we do not find men who have TB, they transmit it to their families, friends, and coworkers. It has been estimated that the bulk of TB in the world is transmitted by men because they take longer to seek care, and when they finally do, they tend to drop off care and in the process transmit TB," he said.

TB is an airborne disease whose germs are passed through the air when someone infected with the disease of the lungs or throat coughs, speaks, laughs, sings, or sneezes. Anyone near the sick person can breathe TB germs into their lungs.



Dr Leila Abdullahi, a Senior Research and Policy Analyst at AFIDEP, when she spoke to MESHA in Nairobi.

According to experts, these germs will progress to disease due to low immunity caused by preexisting diseases or malnutrition, and risk factors, including smoking and abusing alcohol.

In Kenya, the prevalence rate of TB is high, with 426 cases per 100,000 people. Though the epidemic affects people aged 25 to 44 more, the burden is highest among males than females. In 2022, almost seven out of 10 (about 28,000 out of 41,000) cases notified in this age group, were males, according to the Kenya National TB Programme. According to Dr Leila Abdullahi, a Senior Research and Policy Analyst at AFIDEP, there is need for a gender responsive programme that accommodates men, women, and children. "We hope for a scenario where facilities are opened for long hours so that the men or women who work can pass by for treatment after work," Dr Abdullahi said.

She noted that most men do not want to seek treatment because the operation time for most public health facilities (between 8am and 5pm) interferes with the time they use to work in order to provide for their families. Additionally, she said, taking services to the grassroots level where men are, like social hotspots and working places, would ensure that they are captured in terms of TB management, care, and diagnosis.

She recommended use of peerto-peer engagement as men are more inclined to listen and relate to health advice coming from their male counterparts as opposed to women.

Dr Lorraine Mugambi-Nyaboga, who works with the Centre for Health Solutions in Kenya (CHS), observed that employing a differentiated service delivery model was crucial in enhancing access to TB treatment, especially for men.

"This means when you see a patient, you don't treat them as a group. You find out what exactly their needs are," she said, adding that this intervention includes tailoring the treatment and organising the services to the needs of the patient.

She noted that because of widespread use of technology in the country, Kenya could leverage this to share information that is very gender-specific to empower the population to seek care and stay in care when they have been diagnosed.

Kenya is among the 30 high TB and TB/HIV burden countries in the world, bearing up to 80 per cent of the disease's global burden.

"Because the highest burden of TB is among men, if we address the disease among them, as a country, we will reduce the mortality and morbidity," Dr Mugambi-Nyaboga said.

#### Tuberculosis

## Sweating in vain: Plight of miners paid poorly despite higher exposure to ailment

#### **By Meclina Chirwa**

oor working conditions and lack of personal protective equipment at the mines are putting the underground workers at high risk of TB. To make this worse, accountability is lacking, and mining companies are getting away with such omissions.

Malawi TB case finding in the mining sector has been increasing among key populations. The country has also amplified access to information on the disease's prevention, testing, and counseling, but miners still face diverse challenges.

James Powder, a worker at Mchenga Coal Mine in Rumphi District, Malawi, says he is outweighed by the pressure that comes with low wages, yet he does the donkey work. "I'm still on a temporary basis despite working for many years. I receive K50,000 (US\$29.70), without a house allowance. My complaints have always fallen on deaf ears," he said.

When asked if the miners exposed to a myriad of health risks go for TB screening, he said: "I cannot say whether we get screened or not. My worry is welfare; salaries. Look at the wounds in my legs".

This writer joined the miners in their sojourn underground. The miners move 500m underground, making 44 trips as they push wheelbarrows every day at Mchenga Coal Mine. At Chombe, the wheelbarrow trips are at least 32 in a day.

Asked how the company protects miners from contracting TB, Mchenga Coal Mine Safety Manager Moses Mhango, said: "We have a health committee that disseminates messages. We invite health personnel to screen workers, and if one turns TB positive, they are excused from duty until they complete treatment."

#### Photo Credit | Meclina Chirwa



George Maneya, a regional mining engineer at Mchenga Coal Mine in Northern Malawi.

By the time of filing this story, the workers had lacked personal protective equipment for over three months. "For the past three months we have not given those PPEs, including face masks, because currently we are not using heavy machines," Mr Mhango said.

The mine's Human Resource Manager Wongani Simwaka, commenting on the wages matter, said: "At Mchenga Coal Mine we pay the K50,000 (US\$29.70), minimum wage, and add 15 per cent house allowance and other benefits."

One pertinent question is whether there is any oversight in Malawi's mining sector. The country's Mining Department randomly inspects mining companies to appreciate some of the challenges miners face. The department is also part of a project dubbed TB in the Mining Sector in Southern Africa (TIMS). George Maneya, the Regional Mining Engineer, explained: "We have made some strides and successes under the TIMS project. But we still face some challenges, as some companies go against the Mines and Minerals Act."

It is a requirement that miners wear PPEs regardless of the environment. "Companies that break this rule are punished because they choose not to comply," said Mr Maneya.

Miners have a greater risk of contracting TB than many other working population globally. In Malawi, the prevalence of pulmonary TB among miners was found to be at 14 per cent in 2013. The observed prevalence of TB was much higher than the 1,014 per 100,000 reported in the 2013/2014 survey.

Modeling work done by World Health Organisation predicts that Malawi diagnoses about 48 per cent of the prevalent TB cases. At least 36 per cent turn out positive.

According to the Stop TB Partnership, the link between the disease's risk and mining has been best documented in the sub-Saharan Africa, where miners are reported to have greater incidence than any other working population globally. It is also in the sub-Saharan Africa that TB incidence among migrant miners is 10 times higher than in communities they originate from.

Although research in sub-Saharan Africa has primarily focused on gold mining, coal's is linked to a significant risk of lung disease due to silicosis and coal dust exposure.

> - Additional reporting by Dingaan Mithi



Dr Lorraine Mugambi-Nyabuga says TB is a major public health concern as it is still a communicable disease that is transmitted through the air.

### Active case finding of unidentified TB patients finally bearing fruit

#### By Tebby Otieno | tebbyotieno62@gmail.com

he search for TB patients who are not under any medication has intensified, with health professionals now employing a model dubbed Active Case Finding, which involves asking about the disease's symptoms even when individuals visit hospitals for unrelated reasons.

According to the 2016 prevalence survey, four out of every 10 people with TB in Kenya are unaware. The cases are the result of poor health-seeking behaviours, which cause people with TB symptoms to ignore them or seek over-the-counter treatments. Others seeking treatment in facilities never get diagnosed due to various factors.

The strategy to achieve a TB-free Kenya does not rely on those who visit health facilities, but also on TB champions, herbalists, and community health promoters, who raise awareness among various community members. That is because TB patients not on medications infect other members of the community with the airborne disease.

"I look for defaulters who have refused to take TB medications, talk to them, and then they resume their treatments. Because of the privacy consent we signed, my job ends once I have linked them with hospitals," says Isabel Wairimu Ng'ang'a, 56, and a Community Health Promoter in Kiambu County.

Cough, fever, poor weight gain or loss, night sweats and coughing up bloody sputum are common TB signs and symptoms. According to health experts, knowing these symptoms motivates people to seek medical attention. The disease is common in Kenya, and its treatment is effective, as data shows that up to 85 per cent of those treated get cured.

"We must remember that TB is of major public health concern because it is still a communicable disease that is transmitted through the air, and so anyone here who is currently breathing has probably been infected with the bacterium that causes tuberculosis," said Dr Lorraine Mugambi-Nyaboga, from Centre for Health Solutions Kenya.

Kenya is one of the 30 countries responsible for 80 per cent of the global TB burden, with one in every three people infected with the disease. World Health Organisation estimates that 32,000 Kenyans die of TB each year, which equates to approximately six 14-seater public vehicles per day. This high number is because many of them have not been diagnosed.

"Remember we are all infected with TB but what determines whether you will develop TB disease and the other person won't is that if I am malnourished and my immunity low, the bacterium grows and chances are I'll get the disease," said Dr Mugambi.

Evaline Kibuchi from Stop TB Partnership-Kenya said a low level of awareness of TB continues to increase stigmatisation.



Evaline Kibuchi of Stop TB Partnership Kenya speaking at the science cafe organised by health stakeholders in Nairobi.

She says there is a need to mobilise partners and ensure TB services are integrated into all other healthcare programmes, including screening at maternal clinics and proper monitoring to ensure there is accurate and updated data.

"Supposing we tell every Kenyan that when somebody wears a mask because they are coughing, it is not because they are stigmatising the person next to them but because they care and are protecting you," said Ms Kibuchi. Following the 2016 survey, Kenya has been on a mission to find the missing TB cases and reached a peak in 2018. At the time, the country notified close to 96,000 cases though it recorded a downward trend for its TB cases during the COVID-19 pandemic.

The number of cases however increased in 2021 and 2022. This is according to Ms Nkirote Mwirigi, the National Coordinator Public-Private Collaboration, Human Rights and Gender at Kenya's National Tuberculosis, Leprosy and Lung Disease Programme. "We put a target to ensure we find all these missing people with TB gradually.

In 2022 we committed to finding 112,000 cases in vain.

We found 90,841, a rate of 78 per cent. For children we got 71 per cent, while for those we were hoping to increase their TB preventive therapy, we achieved 15 per cent," says Ms Nkirote.

This is based on the country's UNHLM targets against Kenya performance.

Speaking during a media science café organised by the Media for Environment, Science, Health and Agriculture (MESHA), she said they were ensuring that those eligible for TB preventive therapy get it and that they had put some target to it.

"Our treatment outcomes have also improved. This means when you have been diagnosed with TB, you are either cured or you have completed treatment.

We term that treatment success rate. Our treatment success rate is at 86 per cent, which is an improvement from the previous year's 84 per cent," she said.

"We put a target to ensure we find all these missing people with TB gradually. In 2022 we committed to finding 112,000 cases in vain. We found 90,841, a rate of 78 per cent. For children we got 71 per cent, while for those we were hoping to increase their TB preventive therapy, we achieved 15 per cent." - Ms Nkirote Mwirigi, National Coordinator Public-Private Collaboration, Human Rights and Gender at Kenya's National Tuberculosis, Leprosy and Lung Disease Programme.

## Survivors of lung disease opt for door-to-door campaigns for early detection of new cases

Photo Credit | AFIDEP



Young people at a past round table event in Malawi where they discussed ways to keep Tuberculosis at bay. TB survivors in Malawi are doing door-to-door campaigns to enable early detection of TB cases and reduce related fatalities.

#### By Madalitso Wills Kateta | akonyani65@gmail.com

odha Mbeta recalls how in 20210 she hesitated going for TB screening due to the disease's alleged connection to HIV/Aids. But her cough persisted and she fell seriously ill two weeks later that the TB test was inevitable. "I had no choice. I accepted to be tested, and I turned positive. I was put on treatment," Mbeta said.

Mbeta, who spoke to journalists at a Media Science Cafe co-hosted by Journalists Association Against Aids (JournAIDS) and the African Institute for Development Policy (AFIDEP) as part of the TB LIGHT Consortium, a UK aid-funded project, is a TB survivor. "Before I tested positive for TB I had all negative perceptions of TB patients," she told this writer in an interview. "Even after I got medication, I faced stigma from society and some family members."

The 56-year-old mother of four is now a TB treatment champion, volunteering to promote testing and treatment, besides delivering key messages and assisting patients in her remote Menyani Village, in Mchinji District, central Malawi.

A volunteer for Paradiso TB Patients Trust, a Malawian organisation that advocates the rights of persons impacted by TB and HIV/Aids, Mbeta also provides assistance to TB patients in her area until they are cured. She says before Paradiso began its programmes in her neighbourhood, many died of TB due to stigma, which prevented them from going for screening.

Paradiso's programming, which includes TB survivors in the implementation process, has impacted people's views regarding screening and treatment. The organisation uses door-to-door strategy, where volunteer TB survivors provide counselling and collect sputum for testing from suspected cases.

According to Bruce Matewere, the Paradiso Executive Director, the strategy has been helpful in following suspected TB patients who would have otherwise missed treatment. "Involvement of survivors in the promotion of TB screening and treatment brought a tremendous rise in the uptake of services, as possible patients comfortably discuss the disease with survivors," said Matewere.

The World Health Organisation (WHO) estimates that 1.6 million people died of TB in 2016, including 187,000 HIVpositive persons, making the disease the world's 13th biggest cause of death and the second leading infectious killer after COVID-19, surpassing HIV/Aids. Africa is a high-burden region for TB, accounting for 25 per cent of global cases in 2019. The WHO reported 133 cases per 100,000 people in Malawi, with a mortality rate of 31 deaths per 100,000 people.

Tuberculosis has a gender dimension, according to Dr Benjamin Azariah Mosiwa, a research and policy associate at AFIDEP. He says social-cultural, behavioural, and economic factors associated with the disease, such as men's health-seeking tendencies, alcohol consumption, and smoking, as well as regular travel and social mixing, are driving the gender dimensions.

"A political economy analysis study that we conducted under the LIGHT project to assess three dimensions of TB programming in Malawi indicates that the disease maintains a gender lens," said Dr Mosiwa.

He said while TB prevalence figures showed that males were disproportionately affected by the disease, with an average of 1.8 cases globally reported for every woman notified for TB, their health-seeking attitude was not impressive. "Beyond social factors, there is strong evidence that men are disadvantaged in seeking or accessing TB care in many settings," he added.

According to Dr Mosiwa, the study established that men were less likely than women to seek TB care, resulting in limited access to prompt diagnosis and treatment, as well as a higher risk of treatment failure and mortality.



Dr Benjamin Azariah Mosiwa, a policy and research associate, convened jointly by AFIDEP and Journalists Association Against Aids in Lilongwe, Malawi.

According to Samuel Chirwa, a TB/HIV fellow at Malawi's National Tuberculosis and Leprosy Elimination Programme, the country is currently experiencing increase in Multi-Drug Resistant TB (MTDR-TB) due to, among other things, extended periods that TB patients must take medications for the condition.

"Tuberculosis treatment takes a minimum of six months and a maximum of 18. Some patients can abscond treatment when they start feeling better. We are trying to come up with shorter regimens," said Chirwa.

Despite the increase in Multi-Drug Resistant TB (MDRTB), he noted, the government is making positive gains in TB treatment, with a 90 per cent success rate in 2015 and a death rate of 6 per cent. He said deaths were 15 per cent, while successful TB treatment for people living with HIV (PLHIV) was 99 per cent, with 7 per cent of patients lost to followup. However much TB remains an infectious killer, survivors like Mbeta are proving to be the lifeline of the thousands that could have ended up in the statistics of the disease's mortality.

The WHO reported 133 cases per 100,000 people in Malawi, with a mortality rate of 31 deaths per 100,000 people.

#### Photo Credit | Catherine Tembo

## **TB patients now have better medical** solutions with fewer side effects

Photo Credit | Ann Mikia



It took medics long to correctly diagnose the tuberculosis that had been ailing Joseph Muthori, seen here at his farm in Kenya.

#### By Ann Mikia | annmikia@gmail.com

Before COVID-19 struck in 2020, TB was the leading global cause of death from a single infectious disease, according to the World Health Organisation (WHO). TB is preventable, curable and treatable, even among people living with HIV.

Joseph Muthori, 60, is a TB champion. He has also lived with HIV since 2004. Unlike today when people who test positive for HIV are put on Antiretrovirals (ARVs) that stop the virus from multiplying in the body, the drugs then were only available in a few private health facilities and cost an arm and a leg.

In 2014, Muthori started falling ill more often, but braved it. "I would sweat at night, cough, experience fatigue and difficulty in breathing, which did not bother me much," he told this writer. "I had no idea how TB creeps or rushes into someone as innocent as I. Now I wonder how many are aware of salient facts as these," Muthori said.

He acknowledged that many people wait till they are bedridden, only to learn it is TB. "When I presented myself to the hospital, a chest X-ray revealed that I had TB. Treatment started immediately. Now I know it should not have taken so long for me to seek treatment," he said.

When he received a clean bill of health after six months of TB treatment, Muthori was working at the HIV Counselling and Testing Services (HTS) as a service provider in a youth-friendly centre. He was in good health and worked for two years. "The problem started with weight and energy loss. I would get so fatigued, especially in the lower body," he said.

A few of the symptoms felt like the ones he had when he tested positive for TB the first time. "In 2017, I started having what my doctor called stool incontinence. I couldn't control my bowels," he said.

#### Tuberculosis

The symptoms lingered then disappeared. That incontinence affected Muthori's esteem, as he would be happy some days and very sad on others. He tried over 12 hospitals. In one private health facility, the doctor recommended a colonoscopy, a scan to check if he had cancer. "It took a while to get a hospital with such a service and even the money to do the scan, since I didn't have it," Muthori said.

When finally done, the scan ruled out cancer. Surprisingly, according to Muthori, no medic suspected he could have had TB. He continued getting weaker each day. His health and finances were dented. He became less productive at work.

The illness negatively affected his social life because he avoided friends since he did not want them to know he was ever in diapers. In 2018, he continuously used diapers for four months, sometimes up to four in a day. Each cost Sh95 (almost a dollar then). In 2018, he was diagnosed with Multi-Drug-Resistant Tuberculosis (MDR-TB).

World Health Organisation (WHO) defines MDR–TB as a form of tuberculosis infection caused by bacteria that are resistant to treatment with at least two of the most powerful first-line anti-TB medications: isoniazid and rifampin.

The WHO defines Extra Pulmonary Tuberculosis (EPTB) as an infectious disease caused by Mycobacterium tuberculosis that occurs in organ systems other than the lungs. It is difficult to diagnose because its symptoms mimic those of other diseases within the organ that the TB bacteria is affecting.

Joseph started the MDR-TB medication immediately. He says it was such a burden as he would take up to 15 tablets each day to treat both TB and HIV. Today he only takes one ARV tablet, which is a combination of Tenofovir, Lamivudine, and Dolutegravir.

The MDR-TB medication, however, had some life-changing effects on Muthori. On the 77th day of treatment, he realised he could not hear what others, including the doctor, said. He had turned deaf. This interview was conducted through writing. Photo Credit | Ann Mikia



Joseph Muthori after he conducted an interview with the writer at his home in Central Kenya. He narrated how it was burdensome to take many TB drugs, sometimes up to 15 tablets each day to treat TB and HIV.

Prof Jeremiah Chakaya, a global respiratory health specialist, says: "Most likely Muthori received medicines called aminoglycosides (such as amikacin/ kanamycin). These medicines have many adverse side effects, including causing kidney failure and deafness. Fortunately, they are no longer recommended for routine use in people with MDR-TB."

Great strides have since been made in MDR-TB treatment in the country. The WHO estimates that there were 1,400 MDR-TB cases in Kenya in 2021.

Dr Lorraine Mugambi-Nyaboga, a TB specialist, says: "As a country, we have made strides towards more patient-friendly, shorter and safer oral regimen for treatment of MDR-TB. This is in keeping with global recommendations and now ensures that MDR-TB treatment is safer, with fewer side effects, easier to adhere to, and without daily injections as compared to the past". WHO defines MDR – TB as a form of tuberculosis infection caused by bacteria that are resistant to treatment with at least two of the most powerful first-line anti-TB medications: isoniazid and rifampin.



A Ministry of Health official captured during an outreach mission. Economic mishaps in Africa account for overreliance on aid to implement various health programmes, tuberculosis included.

### Donor aid still critical for ailing Malawi's health sector, experts say

By Emmah Ngwata I ngwataemmah9@gmail.com

uberculosis is one of the infectious diseases posing a threat to public health in Malawi, amid escalating debt crisis and overreliance on donors. This is posing an uphill task in tackling TB in a country where spending on health per capita is the lowest in the African region, based on the World Health Organisation's benchmarks.

A recent TB political economy analysis conducted by the TB LIGHT consortium in Malawi shows that overreliance on donors and weak investments in the health sector are weakening the national response on TB.

With a target to raise at least \$18 billion to save 20 million lives globally, and reduce mortality from HIV/Aids, TB, and malaria by 64 per cent, the Global Fund to Fight Aids, TB, and Malaria is gearing up to implement its ambitious new strategy to defeat these long-standing pandemics by 2030.

However, even though TB kills more people than HIV/Aids and malaria, the global body will continue allocating just 18 per cent of its overall funding to TB, while 50 per cent goes to HIV/Aids, and 32 per cent for malaria for the first \$12 billion of funds that are spent between 2023 and 2026. A new split of 45 per cent for HIV, 25 per cent for TB, and 30 per cent for malaria will, however, be applied as cumulative funding rises above \$12 billion in that period.

Speaking at a Media Science Café, Researcher and Policy Associate of the African Institute for Development Policy (AFIDEP) Dr Benjamin Azaria Mosiwa said Malawi's over-reliance on foreign borrowing and donor aid was to implement TB programme because of the economic situation. "Through the first assessment that we conducted, we looked at one of the key factors that would affect the implementation of a TB programme in Malawi, and we realised that the economic situation is a big challenge that hinders the implementation of TB programmes in the country. We keep having economic mishaps as there is over-reliance on aid to implement TB programmes," said Dr Mosiwa.

He, however, commended different stakeholders like NGOs, government and media for pumping in their resources to deal with TB.

A TB and HIV Fellow at the Malawi National Tuberculosis and Leprosy Elimination Programme (NTLEP), Dr Samuel Chirwa, commended the government of Malawi, saying it was doing well in other aspects of TB programme since 2015.

#### Photo Credit | JournAids



Veteran journalist George Ntonya during the TB LIGHT consortium and media café in Lilongwe.

Dr Chirwa said the number of TB cases had been consistently reducing annually with regards to end TB strategies, which showed that Malawi was on track to hit the target by 2030.

"The targets for 2030 are 90 per cent reduction in the number of TB deaths and an 80 per cent reduction in the TB incidence rate compared with levels in 2015.

Dr Chirwa said there was need for Malawi to have updated survey, to establish the true TB burden and also give some national estimates to enable targeted interventions.

"The last TB prevalence survey that we conducted in 2014 found people aged over 55 and urban residents more likely to contract TB, and with that we deployed more active case findings in those areas," says Dr Chirwa.

In relation to the findings in the political economy analysis by the TB LIGHT consortium, the national health financing strategy indicates that Malawi is off track with respect to achieving sustainable poverty reduction, which requires a minimum 6 per cent annual real economic growth rate. This implies that at the current average economic growth, Malawi may not raise sufficient domestic resources for health. Conversely, it implies that donor financing for health will remain critical in the foreseeable future.

Inflation has also been a major macroeconomic challenge in Malawi. Inflation reduces the amounts of health goods and services per available dollar, which affects health service delivery, as fewer service delivery inputs are available, holding everything constant. Rhoda Mbeta, a TB champion and member of Paradio TB Trust, who hails from Menyani village, in Mchinji, Malawi, and who was once a TB case, has urged Malawians to stop discriminating against TB patients, reminding all that the disease is not hereditary. "TB patients can live healthy, normal, and productive lives, yet many are stigmatised and discriminated against," she said.

George Ntonya, a veteran journalist and former media fellow under the Panos Institute, called for more financing and investment in the national TB response. He worries that the lack of funding for TB in Malawi contributed to low awareness, while the media response also weakened.

Malawi also grapples with out-of-pocket payments, with patients forced to pay by pass fees in health facilities. Some struggle to get fare to access far flung health facilities.

Corruption and misuse of public resources were also outlined as significant components of the socioeconomic fabric of Malawi and cited as key development challenges for the country. In the health sector, misuse of public resources manifests itself in leakages of medicines and commodities, especially at health facility levels. Corruption also manifests itself through the existence of informal payments in public health facilities.

The targets for 2030 are 90 per cent reduction in the number of TB deaths and an 80 per cent reduction in the TB incidence rate compared with levels in 2015.

## How health stories can make headline news

Photo Credit | MESHA



Jane Njoroge of Nation Media Group: Journalists must keep sensitising the masses on tuberculosis so that they can be educated as push decision-makers to take action.

By Francis Mureithi | mureithifrancis1964@gmail.com

cience journalists need to tell tuberculosis (TB) stories frequently to create public awareness, a media science café in Nairobi was recently reminded. Though the disease is still a big health concern, it is rarely reported in mainstream media.

Even more worrying is that a good number of science journalists in Kenya have not written a single story about TB. According to Jane Njoroge, a Health and Science Editor at the Nation Media Group, TB stories need to be told repeatedly to fight stigma and improve access to TB services, treatment and care.

"TB stories are not tired stories. They need to be told again and again to create public awareness to help end TB in Kenya," said Ms Njoroge during a media science café organised by Media for Environment, Science, Health and Agriculture (MESHA) and the TB LIGHT consortium under the auspices of African Institute for Development Policy (AFIDEP). The theme of the café was "Towards a gender-responsive approach to end TB in Kenya".

Ms Njoroge said there was also need to create awareness on Multi-Drug Resistant TB (MDR-TB), a form of TB infection caused by bacteria that are resistant to treatment with at least two of the most powerful first-line anti-TB medications (drugs).

Asked what should journalists do to ensure TB stories get prominent pages and spaces in newspapers and digital sites throughout the year, Ms Njoroge said: "The first step is to continuously build credible sources on the ground that comprise TB survivors, TB champions, community health workers, and medics among others."

She said talking to credible sources such as those that attended the science cafe would give journalists tips on issues that they need to highlight in their media platforms.

"We need to highlight the plight of TB patients who suffer due to shortage of drugs in Kenya. This kind of information can easily be available to journalists if they form a rapport with community health workers who know how dire the situation is on the ground," explained Ms Njoroge.

She urged journalists to seize the opportunities to interact with TB activists and doctors whenever they have such media science cafes and get their contacts for future engagement.

"They will give journalists timely information, data and story tips. It is a cardinal sin for a journalist to attend a media science café without establishing new contacts," she said.

Ms Njoroge challenged journalists to shun desktop journalism. "Go to the remotest villages, talk to people and get the deeper human-interest stories with statistics," she said.

"When we write in our stories and state that the number of MDR- TB patients has gone up, let us put faces to those numbers by talking to patients to give us their humaninterest stories," said Ms Njoroge.

She said journalists should allow such patients to tell stories in a firstperson account because it is more powerful as we will get to understand the struggles they go through in their daily lives, including stigma.

MESHA Secretary Aghan Daniel urged journalists to be conscious of what happens around them. "For you to cover TB stories effectively, you must follow up on all such events and policy updates. Journalists who cover critical diseases like TB must be alert round the clock by finding out what is happening in the TB world. They must also do a thorough research providing accurate and evidencebased data-driven information," said Aghan, himself a journalist for more than 25 years.

He added: "Journalists must tell the public compelling stories backed by facts and contact experts to comment. By doing that, they will be creating awareness to help end TB in Kenya."

Ms Njoroge had more to say: "The journalists have an obligation to break down such information by bringing the story closer home on why Kenyans should care about such research or trials conducted elsewhere."

Ms Njoroge reminded journalists that it was not all doom and gloom when writing about TB, as there are success and happy ending stories.



Journalists at work: Leading science editors attending a media cafe organised by MESHA and TB LIGHT consortium called on reporters to continuously tell tuberculosis stories.

"We must tell positive and solutionbased stories by going to the ground and establish how these innovations impact the lives of Kenyans. If the government launches a TB tool, it is the duty of a journalist to go to the ground and establish how many people use these tools and record the impact," she explained.

She noted that TB stories should have an explainer component. "We need to continue educating the masses because we are all potential candidates for TB. We need to tell them about drugs and preventive measures."

While writing, she added, journalists should nose their stories with case studies to capture the attention of their readers. She recognised the challenges in the journalism industry, saying it was undergoing a disruptive period, making it harder to afford to tell TB stories the way it was done 10 years ago.

"The modern reader has no patience and journalists should ensure their stories are multi-media. Incorporate simple data in your stories. The data can be turned into infographics. This will help you journey with the reader to the heart of the story," she added.

More importantly, Ms Njoroge said journalists need to track their stories and evaluate engagement. "Apart from that, it is important for journalists to post their stories in their social media accounts so that readers can interact with your content," she concluded.