Ministry of Health
National Tuberculosis, Leprosy and Lung Disease Program

TiBa

A magazine for DNTLD-P

ISSUE 5 / October -December 2020

Ending TB

Kenya launches two new policies to boost efforts in the fight against TB

The Scorecard:
DNTLD-P Quarterly Report

My Battle with TB

TB AND COVID -19

Impact of COVID-19 on Tuberculosis Management in Kenya

STAY SAFE

REPUBLIC OF KENYA

MINISTRY OF HEALTH

LET'S STOP

CORONAVIRUS

#ItsTimetoEndTB

Ministry of Health

National Tuberculosis, Leprosy and Lung Disease Program

inside

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Word from the Ag. Director General for Health

Dr. Patrick Amoth,

Ag. Director General for Health

The Ministry of Health has introduced two new treatment initiatives to step up efforts to end TB in Kenya. These initiatives which include testing for and treatment of latent TB infection (LTBI) for most-at-risk populations, and the use of injectable-free treatment (IFR) for patients with drug-resistant TB are in line with the commitment made by President Uhuru Kenyatta at the United Nation High Level Meeting on TB and the END TB Strategy to ending the epidemic by 2035.

LTBI occurs when a person is infected with the TB bacteria but does not have any symptoms. It is estimated that one quarter of the world's population, nearly 1.7 billion people, is latently infected with the TB bacteria of which, 5% to10% are at risk of progressing to TB disease. People with LTBI pose a great threat in the community as they are the breeding ground for the TB epidemic.

The LTBI policy provides guidance on the management of LTBI which will be achieved through systematic implementation of evidence-based interventions on identifying, screening and offering a timely diagnosis and effective treatment to those at-risk.

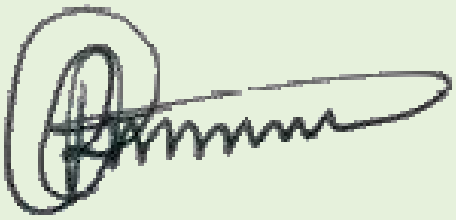
On the other hand, drug-resistant tuberculosis (DR TB) continues to be a major public threat worldwide with about half a million new cases annually. While only one-in-three of those with Multidrug Resistant TB (MDR-TB) are enrolled into treatment globally, even those started on treatment have a high likelihood of experiencing poor treatment outcomes: globally the treatment success is barely above half. This is partly because of the toxic nature of medications, the lower efficacy and long duration of treatment, ranging from nine to 20 months. Kenya is one of the 30 countries highly burdened by TB, TB/ HIV and MDR-TB. The number of DR TB patients in the country has been rising consistently over the years, thus effective management of DR TB is critical.

In 2017 the country adopted a shorter treatment option, lasting nine months, but which still relied on daily injections for a minimum of four months. Besides the painful injections, these drugs could lead to permanent hearing loss and associated social challenges in up to one-fifth of the patients. The transition to injectable free regimens is a milestone we have made as a country. Through the Kenya Injectable Free Regimen (IFR) Policy 2020, the Ministry of Health is committed to ensuring better welfare of all patients with TB, including those with DRTB. We believe the initiative will reduce the drug-related side effects, mainly hearing loss, while improving adherence to treatment and eventually the treatment outcomes.

Word from the Ag. Director, Medical Services Preventive and Promotive Health

Dr. Pacifica Onyancha

Ag. Director, Medical Services
Preventive and Promotive Health



The emergence of drug resistant tuberculosis (TB) poses a major public health problem globally and in Kenya. The number of patients with drug resistant tuberculosis (DR TB) diagnosed in the country continues to increase significantly. For over a decade, treatment of DR TB has heavily relied on the use of injectable drugs (like amikacin, capreomycin and kanamycin) which evidence has shown to be less effective and are associated with significant side effects. These drugs are administered for four to eight months.

The overall treatment success rate of DRTB remains as low as 66% in Kenya. Besides the daily painful injections, the drugs have been associated with permanent hearing loss in up to 20% of our patients. With deafness, our patients have further experienced loss of independence, depressive illness, social difficulties as well as stigma. Most children have further experienced difficulties in learning and language development.

According to World Health Organization (WHO), new evidence has shown that the new TB drugs, mainly Bedaquiline and Delamanid and other repurposed medicines like Linezolid and the Flouroquinolones were associated with reduced deaths, treatment failure and relapses by up to 80%. What is more encouraging is that the medicines are taken orally therefore avoiding the daily painful injections which are administered for months.

The 2018 rapid communication on major changes in the treatment of DR TB and the 2019 guidelines by WHO informed our adoption of the Injectable Free Regimens (IFR). This was as a result of extensive deliberations and discussions with stakeholders that brought together TB experts, the civil society, current and former DR TB patients, patients' advocates, the Pharmacy and Poisons Board (PPB), partners, academia, medical research institutions, counties and the Division of National Tuberculosis, Leprosy and Lung Disease. The transition to IFR is not only revolutionary but it also puts our DR TB patients' interests and rights at the center of our country's health policies. It will further improve the quality of life for our DR TB patients, thus avoiding the misery associated with hearing loss and the stigma that comes with it.

I also take this opportunity to recognize the leadership of the National TB program, DNTLD-P fraternity, our partners and other stakeholders for their support and positive engagements towards ending TB in Kenya. In particular, we are grateful to the Global Fund, WHO, USAID -TB ARC II, Amref Health Africa in Kenya, CDC, STOP TB PARTNERSHIP Kenya, KOMESHA TB and KAPTLD among others. Thank you for your continued support.

World Health Organization

> ***WHO recommends backing up oral treatment with active monitoring of drug safety and counselling patients to complete their course of drug resistant treatment***
>
> **Dr. Rudolf Eggers - The World Health Organization Country Representative to Kenya**

Word from the Head of the Program

Dr. Elizabeth Onyango

Head, Division of National Tuberculosis Leprosy and Lung Disease -Program

Tuberculosis (TB) is the leading cause of death from an infectious agent globally. In 2018, an estimated 1.5 million people died due to TB. Globally, an approximate 1.7 billion people are infected with Mycobacterium tuberculosis, the causative agent of TB among humans.

One of the key strategies to eliminate TB is through the treatment of latent tuberculosis infection (LTBI) in people considered high risk for progression to active TB. Approximately 5% to -10% of people with LTBI develop active TB disease during their lifetime, usually within the first five years. However, this risk increases several folds in the presence of immunosuppressive conditions like HIV. People with LTBI pose a great threat in the community as they are the breeding ground for the TB epidemic. TB preventive therapy is offered to individuals who are considered at risk of developing TB disease in order to reduce that risk.

The National Strategic Plan (NSP) for Tuberculosis, Leprosy and Lung Health 2019 - 2023 targets to offer TB preventive therapy (TPT) to approximately 900,000 persons who have LTBI. The effective implementation of the TPT will see us avert the development of active TB disease with efficacy ranging from 60%-90%.

The revision of the TPT policy document in line with the recent World Health Organization guidelines has seen the population at risk expanded to include people living with HIV; HIV-negative household contacts of bacteriologically-confirmed TB patients, health care workers, prisoners and other HIV-negative at-risk groups like patients on immunosuppressive therapy, dialysis, those preparing for organ or haematological transplant and patients with silicosis.

TB disease among these at-risk populations should first be ruled out by screening for the cardinal symptoms of TB which include cough, fever, weight loss or night sweats in adults and cough, failure to thrive/ poor weight gain, hotness of the body and reduced playfulness in children.

For HIV negative at-risk populations who do not have any of the aforementioned symptoms, it will be prudent to undergo testing for LTBI by either tuberculin skin testing (TST) or interferongamma release assay (IGRA).

World Health Organization

> *Kenya has dramatically changed TB situation among people living with HIV, contacts of TB patients and high risk population. Those with latent TB infections will be treated and protected from developing active disease.*
>
> **Dr. Rudolf Eggers - The World Health Organization Country Representative to Kenya**

By Dr. Elizabeth Onyango | Head DNTLD-P

2019 in Summary

In 2019, Kenya launched the first ever patient-centered and costed National Strategic Plan (NSP) for Tuberculosis (TB), Leprosy and Lung health 2019 - 2023 with a vision of a Nation free from TB and Leprosy and reduced burden of Lung Diseases. This is line with the aspirations of the Ministry of Health aimed at reducing the detection gap by ensuring that all people with TB have access to diagnostic TB services, holistic quality care and TB prevention in the general population.

An estimated 147,000 people fell ill with Tuberculosis in 2019, yet only 86,385 people were diagnosed, treated and notified to the National Tuberculosis Program. Accordingly, the 2015/2016 TB prevalence survey found that the country misses nearly half of the people with TB. This translates to a treatment coverage of 59%, down from 63% in 2018. Men remain the most affected population contributing to 65% of all notified cases with children accounting for 9.7%. Public sector contributed 81% of all TB cases, the private sector 15%, faith-based organizations 3% and prisons 1%. Robust efforts to find missing people with TB through implementation of active case finding in high volume facilities across the country, targeted community screening outreaches, contact investigation and implementation of innovative strategic initiatives such as pay for performance and private sector engagement have been put in place. This has also been made possible through financial and technical contributions by Global Fund, AMREF, USAID and WHO.

NOTIFICATION

147,000
Estimated No. of people fell ill with Tuberculosis in 2019

86,385
People diagnosed, treated and notified to the National TB Program

Treatment Coverage

63%
2018

59%
2019

MEN 65%

CHILDREN 9.7%

DIAGNOSIS

189
Number of GeneXpert machines across the country. Xpert MTB/RIF test remains the test of choice for TB diagnosis

AFB microscopy sites increased from ***2,320*** in 2018 to ***2,555*** in 2019.

TB/HIV

98%
HIV testing rates among TB patients

26%
Co-infection rate

96%
ART uptake

DRUG RESISTANT TB

2,170
Estimated No. people who fell ill in 2019

692
No. of people who were diagnosed

68%
Detection gap

LEPROSY

Number of new cases rose from **110** in 2018 to **164** in 2019.

Diagnosis

The program continued to strengthen access to TB diagnostic services through strengthening sample referral and availing diagnostic equipment. GeneXpert remains the test of choice for TB diagnosis, with 189 machines spread across the country. The National TB reference laboratory in Nairobi and KEMRI/CDC KISIAN in Kisumu remain central in providing culture and drug susceptibility testing for both first and second line (DST) services.

In 2019, the program embarked on the expansion of culture and DST services to three additional laboratories by deploying three laboratory technologists to support decentralization in Machakos, Malindi and Kitale. In addition, AFB microscopy sites increased from 2,320 in 2018 to 2,555 in 2019. External quality assurance (EQA) coverage during the same period was 93% with over 95% of the facilities posting acceptable results. Despite these achievements, the country still faced challenges as far as uptake and optimization of these services are concerned.

TB and HIV

Ongoing TB/HIV collaborative interventions yielded commendable HIV testing rates of 98% among TB patients, a co-infection rate of 26% and ART uptake of 96% in 2019. In addition, treatment success rate for the cohort that started treatment in 2018 was 84% against a target of 90%. A documented death rate of 6.5% and lost to follow up rate of 5.5% remain some of the obstacles to achieving treatment targets. Malnutrition rate of 45% among all TB patients, 24% of whom are severely malnourished, could be a contributing factor of unfavourable treatment outcomes with the country experiencing erratic supply in commodities.

Drug Resistant Tuberculosis

Kenya remains a high burden country for drug resistance tuberculosis, with the Ministry of Health implementing interventions geared towards strengthening universal access to DST. An estimated 2,170 people fell ill in 2019, yet only 692 people were diagnosed translating to a detection gap of 68%.

GeneXpert test was accessible to 44% of patients with all forms of TB, 98% of whom were previously treated patients. Rifampicin resistance (including Multi-drug, Pre-extensively and extensively drug resistant TB) accounted for 75% of the cases while 25% were mono resistant forms. GeneXpert performance in 2019 was observed to have markedly improved as a result of an effective service contract agreement between the Ministry of Health and the service provider, with fewer breakdowns compared to the previous years. However, challenges in sample transport and limited internet coverage led to under reporting and sub-optimal access of GeneXpert in some regions.

All DRTB patients who were initiated on treatment had a treatment success rate of 73%. Further, the program, in collaboration with technical partners, embarked on a journey towards the adoption of WHO recommendations on injection free treatment guidelines for MDR TB patients and revised latent TB infection (LTBI) treatment guidelines to include the expanded population. The initial phase of LTBI implementation, targeting health care workers, began in Kiambu county with the support from Clinton Health Access Initiative.

Rising cases of leprosy

Despite significant steps that the country is making towards elimination of leprosy, a number of counties in western and coastal regions continue to report rising cases of leprosy. The number of new cases rose from 110 in 2018 to 164 in 2019. Elimination is hampered by limited capacity among health care workers to diagnose and manage leprosy, unavailability of rehabilitative services and limited resources to support leprosy activities, with WHO providing support with the supply of medicine. Treatment outcomes of patients initiated on treatment was: 53% released from treatment, 10% declared to be out of control, 2% died, 4% transferred out and 31% yet to complete treatment.

Data Quality Assessment

Data quality assessment was conducted in 25 counties to assess the quality of data following recovery from technical disruption of the data collection system. To strengthen reporting and recording, monitoring and evaluation tools were printed and distributed to all the counties. Finally, the program received a total of USD 52,588,078 to fund TB control in the country from various sources - this was 86% of the total need, leaving an unfunded gap of 14%. Of the total need, the Global Fund funded 41%, GoK 35% and USAID 10%.

Rifampicin resistance (including Multi-drug, Pre-extensively and extensively drug resistant TB) accounted for 75% of the cases while 25% were mono resistant forms.

Status of National Tuberculosis Epidemic and Response

Quarter two 2020

Drug susceptible TB

16,680
Number of TB cases Notified

82%
Treatment success rate (All forms)

20%
Proportions notified from Private Sector

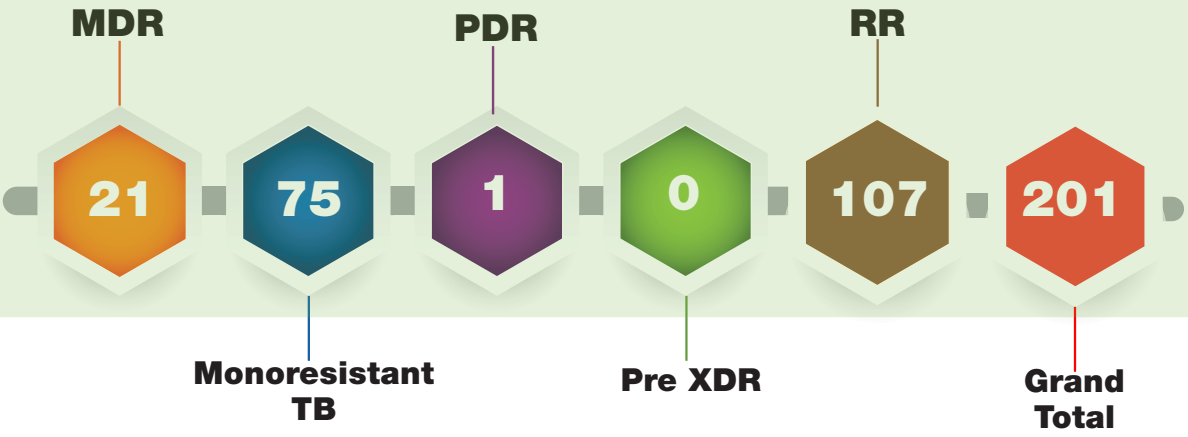
12%
Poportions reffered by CHVs

98%
Previously treated (DSTB) with DST results

97%
Proportion of DSTB with Known HIV status

93%
Proportions on ART

Drug resistant TB



Leprosy

22
Number of Leprosy Cases reported

TB Prevention Therapy

2,092
Children <5 initiated on IPT(contacts of bacterilogically confirmed cases

Dr Rudolf Eggers, WHO Country Representative, Dr Rashid Aman, Health Chief Administrative Secretary and Mr Gerald Macharia, Country Director CHAI

Kenya launches two new policies to boost efforts geared in the fight against TB

By Mbetera Felix | DNTLD-P Communication Officer

The Ministry of Health in collaboration with implementing partners has launched two new treatment policies aimed at ending TB epidemic in Kenya. The launch of Latent TB Infection (LTBI) and Drug-Resistant TB (DR-TB) Injectable-Free (IFR) treatment policy documents came at a time when the country is battling the COVID-19 pandemic.

Resistance to TB drugs has been an obstacle to effective TB prevention care and treatment globally. In 2019, Kenya recorded 692 cases of drug-resistant TB. Most of these patients were initiated on treatment using a regimen that calls for longer treatment periods and characterised with more side effects, compared with drug-sensitive TB regimen.

In 2017 the country adopted a shorter treatment option, lasting 9 months, but which still relied on daily injections for a minimum of 4 months. Besides the painful injections, these drugs could lead to permanent hearing loss and associated social challenges in up to one-fifth of the patients. Some side effects associated with the old regimen include gastrointestinal disturbance, psychiatric disorder, arthralgia, hepatitis, peripheral neuropathy, hypothyroidism, epileptic seizures, dermatological effects, ototoxicity and nephrotoxicity. Adherence to treatment has also been a challenge due to the logistics of administering daily injections.

With the new oral regimen, DR TB patients will no longer be given injections. During the launch of the policy document, Health Chief Administrative Secretary Rashid Aman noted that the Injectable Free regimen which is in line with the World Health Organization's recently released DR-TB treatment guidelines is more effective than the daily shots.

"The drugs will be accessible and affordable. People with TB deserve access to the best, simplest and least-toxic treatment regimens," Dr Aman assured Kenyans.

The new regimen is being administered only to new patients, who are given three months' supply of drugs at a go. Those undergoing treatment under the old regimen will be required to first complete their course.

The launch of the Latent TB policy is aimed at providing a framework to all stakeholders on the management of Latent TB infections in Kenya. It is estimated that without treatment, one in 10 people with latent TB will develop TB disease. The risk is higher in vulnerable populations, including people with HIV and children under the age of five. Those with HIV who are 20 to 37 times more likely to develop active TB from latent infection.

The new regimen consists of three months of rifapentine and isoniazid treatment. The previous standard of care was long and complex, with those affected required to take a pill daily for half a year to three years.

Speaking at the launch, Mr Gerald Macharia, Country Director for the Clinton Health Access Initiative (CHAI) noted that plans are underway to reduce the treatment cost of latent TB from Sh4 500 to Sh1,500 per session.

"Evidence shows that the new regimen is effective in preventing progression to active TB disease, has fewer side effects and is easier for patients to take," he said.

Studies estimate that people with latent TB are 15 to 25 per cent of the world's population. At the latent stage, the TB bacteria is dormant in the body and those infected have no symptoms and cannot spread to others. In fact, most of them don't know they are infected. If untreated, latent TB infection can develop into active TB, causing a person to fall ill and capable of transmitting TB from one person to the other.

The successful implementation of the LTBI policy will be though the systematic implementation of evidence-based interventions on identifying those at-risk, screening them, offering timely diagnosis and effective treatment options as well as monitoring them to adhere to the treatment.

Although preventable and curable, TB affects more than 169,000 people each year and is the fourth leading cause of death, killing nearly 29,000 people annually in Kenya. According to WHO, it remains among the world's top infectious diseases, killing 4,000 people each day, and nearly 1.5 million each year worldwide.

Dr. Francis Kuria, Head of Public Health, Ms. Jackline Mogeni, CEO-Council of Governors Dr Elizabeth Onyango, Head-DNTLD-P, Dr Rudolf Eggers, WHO Country Representative, Dr Rashid Aman, Health Chief Administrative Secretary and Mr Gerald Macharia, Country Director-CHAI

Impact of COVID-19 on Tuberculosis Management in Kenya

By Adano Godana | Mbetera Felix | Richard Kiplimo DNTLD-P

Kenya is among the top thirty countries in the world with triple burden of TB, TB/HIV and MDR TB with an estimated incidence of 156,000 of TB patients (WHO Global Report 2019). In 2019, Kenya notified an estimated 86,504 people with TB, translating to over 40% of TB cases being missed. Prioritization of finding missing people with TB by adopting patient-centered case finding strategies and ensuring prompt treatment initiation and providing holistic care, is thus the country's strategic goal.

On 13th March, 2020, Kenya reported the first case of COVID-19. To date, there is limited data on exact effect of COVID-19 coinfection on the TB disease. Studies have shown that patients with pre-existing conditions who develop COVID-19 are at risk of progressing into severe disease of lower respiratory tract. With TB, treatment interrupters are considered high risk and are more likely to die if they contract COVID-19.

According to WHO, COVID-19 pandemic has intensified social stigma and discrimination against people who are perceived as having contracted the virus. This has resulted in the isolation of certain groups thus leading to situations that encourage the spread of both COVID-19 virus and TB. As a result, a number of people have been hiding symptoms to avoid discrimination hence delaying access to care and discourage adoption of healthy behavior.

A study by Stop TB Partnership suggests that up to 6.3 million people globally, will develop TB between 2020 and 2025 due to Covid-19. A further 1.4 million are expected to die, thus setting back global efforts to end TB by five to eight years. There is a need for special attention to safeguard the continuity of prevention, diagnosis, treatment and care for people with TB in Kenya.

In the past few years, the National TB Program has seen a steady increase in case notifications, particularly on drug resistant forms of TB, and positive treatment outcomes as a result of more services to treat TB and prevent its spread. However, the COVID-19 global pandemic is about to wash away the gains made.

The reduction of notification of TB cases in the last quarter has majorly been attributed to the pandemic. Some of the challenges reported by TB county coordinators include reduced outpatient department attendance with some even closed, closure of specialist clinics leading

First Half, Kenya Performance

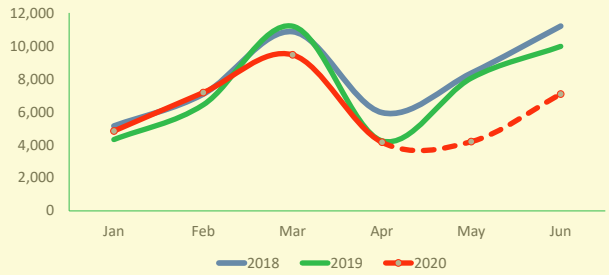
Kenya Case Finding drop

40 Out of 47 Counties had cases decrease

TREND OF BC OVER YEARS

2018	2019	2020
26,178 [52%]	25,267 [55%]	17,966 [57%]

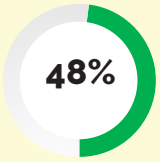
TB Situation under Covid-19



Comparing 2019 and 2020, 19 Counties had >50% drop in May. Four (4) Counties had drop of >50% in June

County	May			June	
	2019	2020	Change	2020	Change
Tana River	57	5	-91%	30	-21%
Samburu	118	31	-74%	69	-15%
Baringo	120	38	-68%	59	-11%
Vihiga	87	28	-68%	62	-11%
Tharaka Nithi	189	64	-66%	105	-19%
Mombasa	475	170	-64%	393	2%
Mandera	71	27	-62%	63	37%
Trans Nzoia	136	52	-62%	78	-27%
Uasin Gishu	164	63	-62%	144	13%
Makueni	204	81	-60%	161	-19%
Kilifi	138	55	-60%	172	-30%
Busia	74	30	-59%	47	-72%
Nairobi	1,129	478	-58%	988	-40%
Kakamega	222	97	-56%	206	-25%
Kitui	240	105	-56%	183	-38%
Turkana	320	154	-52%	192	-28%
Kiambu	406	202	-50%	369	-22%
Kajiado	107	96	-10%	100	-53%
Nyeri	136	89	-35%	89	-52%
Nyandarua	62	37	-40%	57	-52%

First Half, DRTB Performance



501 Cases Reported

Case Finding Increase

12 Out of 47 Counties had a decrease in cases

Counties with highest decrease

County	2018	2019	2020	% Change
Kilifi	12	5	3	-40%
Homa Bay	5	7	4	-43%
Isiolo	2	4	2	-50%
Nyamira	4	5	2	-60%
Vihiga	3	5	1	-80%
Mandera	2	6	1	-83%
Wajir	2	1	0	-100%

to reduction of screening of presumptive cases, lack of personal protective equipment and biosafety cabinets, and closure of some high-volume facilities as a number of health care workers were diagnosed with COVID-19.

Social stigma also led to interruption of treatment, low community screening and poor health behaviours. In addition, the program noted fewer clinical meetings, reduced lab support, self-referral of a number of patients to some upcountry facilities, low anti TB drugs refill, lost to follow ups particularly around border towns and poor infection prevention and control measures in some facilities.

Active case finding

Active case finding (ACF) strategies and activities, both at the facility and community level have been significantly affected. This resulted to reduced number of TB tests conducted in first half of the year from 29,833 in 2019 to 23,458 in 2020, a decline of a -21% in GeneXpert utilization.

Decline in drug susceptible TB patients diagnosed and notified per month was also noted in the first half of 2020 compared to a similar period in 2019. Forty (40) counties documented a decline in case finding with Kilifi, Busia and Trans Nzoia recording the highest decline at 33.6%, 32.5% and 30.6% respectively. Only seven counties recorded an increase with Kirinyaga and Siaya counties leading at 10.9% and 9.9% respectively compared to a similar period in 2019 in the first half of the year.

Drug resistant TB

Drug resistant TB surveillance documented a 48% increase in case finding between January and June 2020 compared to the same period in 2019. Notably, a marked increase in case detection was observed in the first quarter of the year compared to the same period in 2019, however, this was significantly affected by COVID -19 outbreak. Drug susceptibility testing (DST) was 66% among new patients and 79% among previously treated TB patients.

Global Fund Results Report 2019: The State of the Fight against TB

By David Waithaka | Communications – Nakuru County

Although the world is still grappling with the TB challenge as the disease still remains the world's leading infectious killer mostly affecting poor and marginalized communities, an observable factor from the thirteen nations with the highest TB burden globally, the Global Fund response towards TB challenge through investment in mitigation programs is significantly changing this.

The positive outcomes in the fight against TB are epitomized by the Global Fund Results Report 2019 which tracks the performance of the worldwide partnership to ending TB, Malaria, and HIV/AIDS epidemics over the stated period. The said report indicates that tremendous gains have been realized through the initiatives targeted at combating these three diseases.

The report further states that by all indications, the concerted efforts by a wide array of actors comprising the Global Fund partnership, including implementer governments, multilateral agencies, bilateral partners, civil society groups, people affected by the diseases and the private sector have immensely contributed to the transformative outcomes.

Highlights of the Positive Outcomes

The percentage of the people with TB 'missed' by health systems, this implies people who go undiagnosed, untreated and unreported, has registered a remarkable decrease. The percentage of people missed by health systems dropped significantly from 46% in 2013 to around 30% in 2018. In the commitment to end TB, this is a critical gain as one single person with TB missed poses the risk of spreading the disease to as many as 15 other people per year, increasing the prevalence of infections.

An example of a Global Fund Program that has aided in finding the 'missing' people is the Stop TB Partnership and WHO that focuses on 13 countries with the highest TB burden has sharply accelerated progress in finding people with TB. In these countries, which include Kenya, by the end of 2018, more than 800,000 additional people ill with TB were found and treated, compared with the baseline of 2015.

The Global Tuberculosis Report 2019 shows that the gap between TB notifications and TB incidence in the 13 focus countries, accounting for 75% of the world-wide missed TB cases fell from 49% in 2014 to 33% in 2018.

The largest increases in the numbers of people being diagnosed with TB were achieved in some of the countries with the highest burden of TB in Asia: Bangladesh, India, Indonesia and the Philippines.

African countries such as Mozambique and the Democratic Republic of Congo also achieved large proportionate increases in their TB case notifications. This progress in finding missing people with TB puts the Global Fund efforts on track to meet the goal set at the UN High-Level Meeting on the Fight Against TB of finding and treating 40 million people by 2022.

In 2019, there were indications of improvement in the treatment of those with multidrug-resistant TB. Commitments to bolster such efforts were even further stepped up in 2020, including more investments in treating latent TB by broadening access to better preventive therapy.

The fight against TB heavily depends on effective prevention and treatment. Through initiatives that

support TB care and prevention more so for children and other vulnerable groups; 169,571 children in contact with TB patients received preventive therapy in 2019 in countries where the Global Fund invests.

In 2019, the Global Fund entered into an agreement with Unitaid and Sanofi, this partnership is aimed at reducing the price of rifapentine, a critically important drug used to prevent TB. The agreement is expected to boost efforts to treat latent TB infection – currently estimated to affect 1.7 billion people worldwide – by broadening access to better preventive therapy

Investments have been made to fight antimicrobial resistance. Also, negotiations to reduce bedaquiline – a relatively new drug used to treat DR TB – have been done. The drug has fewer side effects and is more effective than earlier treatments, increasing the probability that people will stay on the treatment and be cured. The bottom line of improving prevention and treatment is to save lives by reducing the number of TB death which have dropped by 25% since 2002.

Key results in countries where the Global Fund invests:

5.7 million people treated for TB in 2019. TB treatment coverage increased from 48% in 2010 to 65% in 2018, and the TB treatment success rate reached 85% in 2017. Global targets for coverage and treatment success rates: 90% by 2025.

125,000 people on treatment for multidrug-resistant TB in 2019; treatment coverage reached 38% in 2018 and MDR-TB treatment success rate increased from 51% in 2010 to 57% in 2016. Global targets: 90% MDR-TB treatment coverage and success by 2030.

6,107 people with extensively drug-resistant TB on treatment in 2019.

315,000 HIV-positive TB patients on antiretroviral therapy during TB treatment in 2019; coverage of ARVs in notified HIV positive TB patients increased from 45% in 2010 to 88% in 2018. Global target: 100% among detected cases.

Snapshot of TB Intervention by Global Fund in Kenya

So far, the Global Fund has invested USD 0.16 Billion (USD 160 Million) for the fight against TB in Kenya, this is as per the Global Fund Results Report 2019. This amount is equivalent to over Ksh 17 Billion. Between 2010 and 2018, the following was attained: TB deaths, excluding those HIV positives dropped from 33, 000 to 19, 000. TB incidence rate per 100,000 people fell from 531 to 292. Over the same period, treatment coverage rose from 45% - 63%. Between 2012 – 2017, the TB treatment success rate minimally dropped from 86% - 83%. Multi-drug resistant TB treatment success rate between 2010 and 2016 drastically reduced from 82% - 68%, while HIV positive TB patients on ART tremendously rose from 48% - 97% between 2010 and 2018.

The Global Fund Results report indicates that since this partnership was initiated in 2002 with the commitment of ending TB, Malaria, and HIV/AIDS epidemics major milestones have been realized. The gains from this initiative include: improving service delivery, success in finding and treating people with lifesaving medicines cost saving on health products and improved collaboration across the Global Fund Partnerships.

These gains have contributed to saving of 38 Million lives that were under the peril of the three pandemics, 6 million of them having been saved in 2019 alone. Other positive impacts from the achievements include: the availing of antiretroviral therapy for HIV to 20.1 million people; 718,000 HIV-positive mothers received medicine to keep them alive and prevent transmitting HIV to their babies; 5.7 million people tested and treated for TB; and 160 million mosquito nets were distributed to protect nearly 320 million people from malaria for three years.

Impacts of COVID-19 on TB

Just as the knock-on effects of COVID-19 threaten to derail gains made in the fight against Malaria and HIV/AIDS. The impact of COVID-19 on the fight against TB could be equally devastating. Some TB laboratory services are under acute pressure. As of June 2020, 20% were experiencing high or very high levels of disruption. In some places, new TB case notifications have dropped by up to 75%, which could result in increased numbers of "missing" TB patients.

The similarities between the initial symptoms of COVID-19 and TB contribute to confusion and stigma, hindering efforts to identify and treat TB patients. Molecular diagnostic instruments used to diagnose TB are being diverted to test for COVID-19. This has contributed to the reduced effectiveness of programs to reach "missing" TB patients.

As with HIV, some people with TB have encountered difficulties in sustaining their treatment given impediments to accessing medicines, economic privation, and disruption to support mechanisms. According to the Stop TB Partnership, the COVID-19 pandemic could result in an additional 525,000 TB deaths in 2020 compared to 2018 levels. Combined with the extensive disruption to testing and prevention activities seen in many countries, more than a decade of progress in the fight against TB could be reversed.

These gains have contributed to saving of 38 Million lives that were under the peril of the three pandemics, 6 million of them having been saved in 2019 alone.

Launch of IFR and LTBI policy documents

Dr Francis Kuria, Head of Public Health, Dr Rudolf Eggers, WHO Country Representative, Dr Elizabeth Onyango, Head DNTLD-P, Dr Rashid Aman, Health CAS, Eveline Kibuchi- Stop TB Partnership Kenya Philip Muchiri -CHAI, Dr Newton Omale - NASCOP, Dr Eunice Omesa- WHO and Mr Gerald Macharia, Country Director CHAI

Dr Rashid Aman, Health CAS and Mr Gerald Macharia-CHAI

Dr Rudolf Eggers, WHO and Dr Rashid Aman, Health CAS

Dr Onyango-DNTLD-P, Dr Omesa - WHO and Ms Kibuchi -Stop TB Partneship (K)

Dr Rudolf Eggers, WHO and Dr Rashid Aman, Health CAS launching the LTBI and IFR policy documents

Dr Rudolf Eggers, WHO and Dr Rashid Aman, Health CAS

Data Qaulity Assessment - Kakamega County

Nurse in charge, Manyala Sub County Hospital, Moses Wesonga, SCTLC Butere, Rose Muthee and Catherine Githinji-DNTLD-P

Rose Muthee and Catherine Githinji from DNTLD-P engaging nurses in charge of TB clinic in one of the facilities

Dr Etemesi Beatrice, Chief Officer, Kakamega engaging the DNTLD-P team when the paid her a courtesy call

Rose Muthee DNTLD-P and Moses Wesonga, SCTLC Butere, engaging nurses in charge of TB clinic in one of the facilities

Lilian Kerubo, Moses Kigen, Emily Vuguza (CTLC-Kakamega), Martin Githiomi - DNTLD-P (Team lead), Rose Muthee and Catherine Githinji- DNTLD-P paying a courtesy call to the Chief Officer Kakamega County.

DQA team assessing data at Manyala Sub County Hospital

Boost for TB program in Turkana as EGPAF donates Ksh 2 Million Gene Expert Machine

Sub Country laboratory services coordinators for Turkana West demonstrating how a GeneXpert machine works

Turkana County - MoH Communication

Efforts of the County Department of Health Services and Sanitations towards ending Tuberculosis (TB) cases by year 2030 in Turkana in accordance with the 2019 - 2013 National TB Strategic Plan received a boost when Elizabeth Glaser Pediatric Aids Foundation (EGPAF) donated a complete set of Gene Expert Machine with its accessories to the Turkana County TB program.

The machine which also includes a laptop and a back-up inverter was installed at Lopiding Sub-County Hospital and is worth Ksh 2 million. The handing over which was held on 4th June 2020 at the county health headquarters in Lodwar was presided over by the Health CEC Jane Ajele and Joseph Ekuwam Ngikeny, the Project Coordinator of Catalyzing Pediatric Tuberculosis Program in Turkana County.

While receiving the equipment which will be eventually shipped to Lopiding Sub County Hospital as its final destination, CEC Jane Ajele lauded EGPAF for supporting programs in the fields of HIV/AIDS as well as TB over the years in Turkana County.

The CEC also said that the placing of the machine at Lopiding will be strategic for serving the needs of the expansive Lokichogio belt and other areas beyond the Nadapal border in Southern Sudan as well.

"With the receipt of this equipment, I hereby pronounce the upgrading of Lopiding Sub-County Hospital from a treatment site to a Gene-xpert TB diagnostic site for drug sensitive and drug resistance cases moving forward." said CEC Jane Ajele

She promised to ensure that the equipment was well handled with regular allocation of funds for routine servicing and maintenance.

On his part, Mr. Ngikeny said that the machine will boost specimen referral and promote the generation of more accurate results for better patients' outcome in the region.

Mr. Ngikeny added that Lopiding has proved itself as a high burden TB environment since the hospital has been diagnosing more than a quarter of all TB cases in Turkana for the last three years.

Ngikeny also said that the machine will boost management of pediatric cases in Turkana.

The short ceremony was also attended by Daniel Esimit the Deputy Director for Preventive and Promotive Health, Dr. Kevin Lomuria the Deputy Director for Medical Services, Dr. Job Okemwa the County TB program, Mr. James Maragia the County Medical Laboratory Services Coordinator and Dr. Yvonne Musa representing the County Health Management Team.

Tracing of Treatment Interrupters: My passion as a public health officer

Mr Mugambi and Mr Mutembei during one of the home visits

By Mbetera Felix : DNTLD-P and Maurice Mugambi

My name is Maurice Mugambi Ngoroi. I am a Public Health Officer in charge of Mwimbi Ward. in Mwimbi Sub-County, Tharaka Nithi County.

I went to St. Mathews Boarding school in Kianjokoma – Embu County and later joined Kamama secondary school where I sat for my K.C.S.E. I was admitted at Kenya Medical Training College Nyeri for a Diploma in Environmental Health. I went for further studies at Meru University of Science and Technology where I graduated with Bachelors of Science in Public Health.

In 2010 I was employed by the Ministry of Health where I was first posted to Sololo Sub-County in Marsabit County. Two years later I was transferred to Tharaka Nithi County, Mwimbi Sub-County. As a Public Health Officer my work mainly is promotive and preventive at the community level. Tuberculosis (TB) being a communicable disease and preventable, my work is mainly community education.

One major challenge to the control of TB is failure to complete the lengthy treatment of six or more months, thus leading to treatment interrupters which is associated with an increased risk of mortality. One of my patients, Hilum Mutembei, defaulted due to a number of reasons. He was not only stigmatized by some members of the community but the distance from his home to the health facility wasn't of any help either. Lack of quality food was evident as defined by his weak body.

As a family man, Mutembei's backet was full with children to feed, educate, provide clothing and offer protection. Unfortunately, his wife left him when he started ailing. In addition, he was heavily infested with jiggers that made him immobile.

We reached out to Mutembei through Community Health Volunteers (CHV) who play a bigger role when it comes to defaulter and contact tracing in communities. There was need to intervene as Mutembei's case was serious and needed attention. With jigger treatment, the CHV used to monitor his progress every week and report to me.

Through education and awareness, we were able to sensitize Mutembei and his family on TB disease and the importance of drugs adherence. We also offered him transport to the clinic and made a two months food donation to the family after reaching out to well-wishers. To fight stigma, we undertook health education to the entire village on the importance of accommodating T.B patients in the community.

The County Government was of great assistance through food donations as well as treatment. In particular, the county TB coordinator was of great support. We used to have regular meetings and she guided us until Mutembei fully recovered.

Treatment interrupters should be traced and supported through their treatment. They need psychosocial, food and sometimes financial support. More often, it is hard for them to engage in income generating activities. Communities should also be educated in order to stop stigmatization.

In order to reduce defaulter cases, the TB program should capacity build public health officers and CHVs on TB management. There is also a need to analyze the background of TB patients for further interventions where necessary.

"Treatment interrupters should be traced and supported through their treatment. They need moral, food and sometimes financial support."

Supporting Counties with Personal Protective Equipment (PPE) to Support Continuity of TB Services

Nairobi County Health Management Team, Amref GF-TB and Malteser International teams during the distribution of PPEs at the Amref Health Africa Kenya Country Office.

To ensure continuity of Tuberculosis (TB) services amidst the COVID-19 pandemic, Amref Health Africa through its Global Fund TB project procured Personal Protective Equipment (PPE) for implementers in the community including Community Health Volunteers (CHVs), Linkage Assistants supporting health care workers in conducting TB active case finding (ACF) activities, multi-drug resistant (MDR) champions, other community implementers supporting Kenya Innovation Challenge (KIC) TB innovations and Community Health Assistants (CHAs), Sub Recipients (SRs) and the Principal Recipient.

These included 48,000 reusable masks targeting 6,000 community implementers across the 47 counties; 3,720 boxes of gloves; 1,545 boxes of surgical masks and 3,720 hand sanitisers. These commodities were dispatched to various SRs in late May and early June 2020. The SRs then redistributed the commodities to the target groups in their counties. Sensitisation of CHAs and CHVS on COVID-19 in relation to TB, human rights and sexual and gender-based violence is ongoing in most of the counties.

Sensitisation of CHVs on COVID-19 in Nairobi County.

Applying Innovative Approaches to Find Kenya's Missing TB Cases

Amref Health Africa in Kenya, through the Global Fund TB Project, in collaboration with the Ministry of Health, is supporting the implementation of the Kenya Innovation Challenge TB Fund (KIC-TB Fund), geared towards finding the missing people with TB in the community. Under the grant, Amref is supporting nine organisations to implement 11 innovations in six counties - Nairobi, Mombasa, Kiambu, Homa Bay, Kakamega and Kajiado.

The implementers of this program included Community Support Platform, Heroes Oasis Counselling Centre, NAIS Healthcare Limited, North Star Alliance, Partnership for a HIV Free Generation, Resources Oriented Development Initiative, Respiratory Society of Kenya, Sema Limited and TAC Health Africa. The innovations target different populations based on the context of the innovation in each of the counties.

Easing TB Screening through the Automated TB Screening Machine (ATSM) - Linux Njuki's Story

Linux Njuki during the interview

While going about my business at the Nairobi Railways Station, I heard that there were people collecting sputum samples from people who were coughing. Since I was coughing, I moved closer and inquired. The staff at the Automated TB Screening Machine (ATSM) showed me how sputum was collected.

I was asked if I had been coughing and the duration of my cough. I told them that I had been coughing for a long time, taking antibiotics, but the cough persisted. The staff took my sputum and told me that they would call me after one week for my results. I was called and informed that my results were ready. I arrived at the screening site and was told that my results were positive and that I would be given free TB treatment. I was taken directly to the nearest hospital, where I was initiated on TB treatment. From there, I started my medication, and after about three days, I felt a little better. The sweating and coughing had reduced drastically. I felt I was getting healed, though I was advised to complete the medication prescribed, and that is why I am still taking my medication to date. I feel much better now.

They further asked me if I was living with my family and that I should bring them for screening. I obliged, and they were all screened. Fortunately, none of them was found with TB. Those who were coughing, including my little girl, were taken to hospital and given Isoniazid Preventive Therapy (IPT). Right now they are all fairing on well. I am still adhering to my medication. Even though I feel better, I must complete my medication."

The Automated TB Screening Machine (ATSM) is an innovation by Sema Limited through the Kenya Innovation Challenge TB Fund to find the missing people with TB in the community. The ATSM operates like an automated teller machine (ATM), where a person can self-screen for TB by responding to the basic TB screening questions. If a person has signs and symptoms for TB, they are referred to a tent where health education is offered, and the clients are requested to give a sputum sample. The clients are shown how to give a quality sample. If the client is unable to give the sample, they are escorted to the nearest facility for further evaluation. Clients found to have TB are also referred for TB treatment in the nearest TB treatment facilities.

The Automated Tuberculosis Screening Machines are located at dense foot traffic areas – Huduma Centres at Makadara DO's Office, Kibra DO's Office and at the Railways Station in Nairobi where people using the public services in these locations can screen themselves for TB.

To date, 25,150 people have accessed the ATSM services with 55 confirmed TB cases, 43 of whom were initiated on treatment.

> ***"The ATSM operates like an automated teller machine (ATM), where a person can self-screen for TB by responding to the basic TB screening questions***

Finding People with TB in Prison Settings –Edward Otieno's Story

Edward Otieno during screening at Homabay Prison

I have been at the Homabay Men's Prison for ten years. A few weeks ago, there were these teachers called Ambassadors and Heroes Champions who came to where I was and educated me about TB. They asked me to provide a sputum sample for testing, and I was diagnosed with TB. I am thankful to them because I did not know what was going on. I urge others also to get to know their TB status. I was given drugs which I am currently taking. Before testing for TB, I was not feeling unwell, though I had a fever from time to time. I will keep on taking my medication until I complete the dose."

The Arobaini Initiative is an innovation by Heroes Oasis Counselling Centre to find the missing people with TB. This initiative engages inmates in prison and prison staff and their families to screen for TB. TB champions among the inmates identify inmates with signs and symptoms of TB and report to the next level in the chain. The Clinical Coordinator then arranges for samples to be collected, tested and for treatment where necessary.

To date, two TB cases have been identified among the prison population across three prisons in Homabay County.

Championing TB Case Finding Through a Peer-Led Model: Janet Wesamba's Story

Janet Wesamba-Tibika Champion during one of her community outreaches

Janet Wesamba is a Tibika Champion who was diagnosed with TB eleven years ago. Before that, she had visited several hospitals where she was diagnosed with different diseases but never got better. She was finally diagnosed with TB at Ganjoni Clinic in Mvita, Mombasa County. She was put on treatment which she completed. The burden of the disease on her family and the several experiences of misdiagnosis prompted her to get more involved in community work.

While visiting the Ganjoni Clinic with her friend to pick up a prescription for TB drugs, Jane spoke with one of the clinic staff about a TB project that North Star Alliance was in the process of introducing and shared her experience with TB. As a result, the TB Clinician recommended Janet for the role of a Tibika Champion, owing to her dedication to refer groups to care, including street families, people living with HIV and those with disabilities who are often missed with these services.

Her roles as a Tibika Champion include community sensitisation, screening, referral and follow up of persons presumed to have TB; a role she carries out exceptionally well. She is extremely grateful for the platform the project has given her, as she now has the resources and a mechanism through which she can reach more people within her community.

Tibika Jikinge Innovation Success in Finding missing people with TB: Granton Mwaduka's Story

Granton, (right) during a visit to Jomvu RWC, a facility managed by North Star Alliance.

Granton Mwanduka, 51, is a TB client trying to put his life back together. During his younger years, he indulged in alcohol and drugs such as heroin, marijuana and hashish.

Although he was able to stop using drugs, he still has alcohol dependency. He works as a teacher at a primary school and struggles to conduct his lessons as he spends most of his time at a local chang'aa den. He confesses that the more time he spends at the dens, the more depressed he becomes. As a result, his wife and children left him.

He shared that he had been coughing and with support from North Star Alliance Tibika Champions, he was screened for TB. Granton was diagnosed with TB and was referred to Jomvu Roadside Wellness Centre (RWC) where he was initiated on TB treatment. When he was weighed at the Jomvu RWC, he was shocked to learn that he weighed 41 kilos yet for many years, his weight ranged between 70 and 72 kilos.

This was a wakeup call. Through frequent counselling and home visits by a clinician at Jomvu RWC, he has started to regain his health. He has reduced his alcohol intake, and his weight has increased from 41 to 49 kilos.

Tibika Jikinge is an innovation by North Star Alliance through the Kenya Innovation Challenge TB Fund to find the missing people with TB in Mombasa County. This innovation seeks to find missing people with TB among mobile populations and champions TB screening by use of a peer-led model through social networks and centres for mobilisation. Tibika Jikinge Champions like Janet carry out education sessions for this population and screen them at hotspots. To date, 36,081 people have been screened for TB by the Tibika Champions, and out of these, 144 have been diagnosed with TB and put on treatment.

Through the KIC-TB innovations, the Ministry of Health brings TB services to populations that would ordinarily not access them, thus helping in the attainment of Universal Health Coverage whereby the people are supposed to at all times access quality health services at cost friendly rates.

Our Vision

Lasting health change in Africa

Our Mission

To increase sustainable health access to communities in Africa through solutions in human resources for health, health services delivery and investments in health.

Our Promise

- **Improve the lives of disadvantaged people in Africa through better health**
- **Bridge gaps between communities, health systems and governments**
- **Be a leading force for advocacy for health system reforms in Africa**
- **Be a leader in the NGO community, developing and documenting best practices and training programmes**

Accelerating Efforts Towards Fighting TB Amid COVID-19

TB ARC II Nairobi Regional Officer and Nairobi Metropolitan Services TB officials during a targeted screening at Nairobi Remand Prison

By Diana Kagwiria - TB ARC II

The emergence of Coronavirus Disease (COVID-19) has left a trail of destruction with reported loss of lives and livelihoods globally. In Kenya, the Ministry of Health has reported the disease to have caused disruption in the uptake of most health services including Tuberculosis, the leading cause of death from infectious diseases in the country.

The National Tuberculosis, Leprosy and Lung Disease Program (NTLD-P) and partners like Centre for Health Solutions - Kenya through USAID Tuberculosis Accelerated Response and Care II (TB ARC II) activity have recognized the risk posed by COVID-19 on TB case detection and treatment. They have been working to cushion the country against declining TB case finding. Additionally, through the NTLD-P, differentiated model of TB care has been introduced.

Among the key strategies implemented to cushion the Country against further impact include;

Targeted TB screening and testing: In an effort to improve TB case finding and early diagnosis for better quality of care, health facility and community targeted hot spot TB screening is being conducted in the 11 TB ARC II priority counties. In Nairobi County alone, the activity in collaboration with the Nairobi Metropolitan Services and implementing partners has so far screened 2605 persons for TB, of which 803 have turned out as presumptive TB cases. 663 have had their sputum taken for GeneXpert TB testing of which 59 tested positive and have all been started on treatment.

Virtual DRTB Clinical Review Team meetings in Nairobi: Nairobi County is the highest contributor to national Drug Resistant TB (DRTB) case notification. To ensure quality care for people with DRTB, TB ARC II through the Nairobi County Regional Officer, has supported monthly DRTB clinical review meetings which have been conducted online in response to the challenges posed by physical meetings in the COVID-19 setting. These meetings have ensured continuity of clinical reviews while reducing the risk of infection transmission thus improving patient management leading to better quality of care and outcomes.

Differentiated Care: In April, USAID TB ARC II together with implementing partners supported the National TB Program in disseminating the operational guidance to the counties on TB control and care services amid COVID-19. Using the patient profiling tool, health facilities in the counties were supported to classify patients as stable and unstable. Drug Resistant TB patients were supported to access treatment through direct observed therapy by health care workers in their communities as well as onsite technical support for review of DR TB patients who had complications or required treatment adjustment.

TB ARC II together with county TB coordinators also conducted accelerated support supervision across health facilities to ensure TB patients had access to treatment. They also supported facilities reorganize patient flow which had been disrupted by COVID-19.

Dr Lorraine Mugambi-Nyaboga during a TB feature story interview with a journalist from K24. The feature story was aimed at raising TB awareness amid COVID-19 to improve uptake of TB services.

Mass Media Campaign: The activity in collaboration with National TB Program and county TB coordinators is engaging various national and vernacular radio, television and newspapers outlets in creating TB awareness, demand creation for TB services, and promoting care seeking and prevention in the community through feature stories and interactive live shows.

The campaign complements the ongoing strategic places wall branding and public service vehicles branding with TB messages on the cardinal signs of the disease and a call for action to the masses to go for screening.

Continuous Medical Education: To improve health care worker knowledge on TB case finding thus improve TB identification, TB ARC II in collaboration with various County TB coordinators is conducting facility based continuous medical education.

TB/HIV Stakeholder's Forum: To improve TB/HIV coordination for better quality of care as well as ensure that the gains in TB/HIV are not reversed, the activity is continuously conducting County level TB/HIV stakeholder's forum. During the meetings, TB/HIV indicator progress are discussed and way forward given on the various gaps identified. Some Counties have had to conduct their meetings virtually while others physically depending on directives from the County leadership.

Joint NTLD-P TB ARC II Work Planning

DNTLD-P and TB ARC II members during the Joint work planning meeting

By Diana Kagwiria - TB ARC II

The National Tuberculosis, Leprosy and Lung Health Program (NTLD-Program) and USAID TB ARC II activity implemented by Centre for Health Solutions – Kenya held a joint work planning meeting for the period October 2020 – September 2021 at Lake Naivasha Lodge, August 11-13, 2020.

The joint work plan developed is aimed at strengthening the NLTD-P stewardship role in TB control in Kenya while optimizing resource allocation at the national level, strengthening operational budgeting and enhancing synergies, resource allocation, and management to enable a smooth program implementation.

The exercise presented an opportunity to leverage NTLD-P and TB ARC II strengths in developing an integrated work plan strategically aligned to the National Strategic Plan (NSP) for Tuberculosis, Leprosy and Lung Health 2019-2023 of a Kenya free of TB.

TB ARC II supported the meeting financially and provided technical support. TB ARC II continually supports the National TB Program to reduce incidence and number of deaths due to tuberculosis in Kenya. This is by ensuring increasing timely use of quality TB, TB/HIV and Drug Resistant TB treatment, undertaking participatory approaches to improve TB Service uptake and enhancing the efficiency and sustainability of the NTLD-Program.

Strategic Initiatives to Find Missing TB Cases

On September 14, 2020, The National TB Program in collaboration with the USAID TB ARC II implemented by Centre for Health Solutions – Kenya (CHS) held a virtual meeting with Kenyan TB/HIV implementing partners to discuss TB prevention among key populations. The quarterly meeting also provided a forum to discuss key areas of focus and cascade the recently launched Latent TB policy guidance and strategic interventions from the national level.

The key purpose of the forum was to bring together TB/HIV implementing partners funded by various partners like CDC and USAID to rally them together to ensure all activities at the county level are in line with the strategic initiatives of the National TB Program, HIV Programs as well as international best practices and emerging evidence.

The e-forum also aimed at strengthening TB/HIV implementing partners to scale up and optimize their support within the counties towards addressing the key implementation challenges at the county level of the recently launched Latent TB policy. USAID TB ARC II activity also supports the monthly joint USAID implementing partners, NTLD-P and NASCOP community of practice on TB preventive therapy virtual meetings via Extension for Community Healthcare Outcomes (Project ECHO) platform.

Since January 2016, coordination efforts through TB ARC and TB ARC II activities, has seen an increase in the number of the people living with HIV being initiated on Isoniazid Preventive Therapy and incidences being reported in the DHIS system. This engagement of the TB/HIV implementing partners has also seen the strengthening of the TB sample networking systems at the county level. Additionally, there has been an improvement on the level of effort being put in place to improve the quality of care of patients. TB patients are now receiving a lot of support at the county level especially those who are co-infected with HIV.

Improving Quality of Care for TB Patients: My battle with Tuberculosis

Ian Victor - A former TB patient

By Diana Kagwiria - TB ARC II

The World Health Organisation classifies Kenya among the high TB burden countries globally. According to the National Tuberculosis Prevalence Survey of 2016, the disease prevalence is highest among young men in the country. In this edition of TiBa newsletter, 24-year-old Ian Victor shares his battle with the disease and how improved access to screening, diagnosis and treatment completion support have been of help on his journey to full recovery.

My name is Ian Victor. I am 24 years old, a university student, an artist and a resident of Umoja estate, Nairobi. I am a fully recovered TB patient thanks to the support I have gotten during my battle with the disease.

It was October last year 2019, when I began having chest pains, fever and fatigue. Initially I took over the counter medicines for almost two weeks but the situation did not improve. It is then that I decided to seek treatment in Baraka Hospital, Mathare, Nairobi.

Upon explaining the symptoms, I was experiencing to the health care worker, she recommended I take a chest x-ray. The results from the x-ray confirmed I had TB.

When I was told I had TB, it was hard for me to believe because I believed I could not get the disease as I am a person who loves exercises. Also my thoughts then were that TB was a disease for the elderly and the HIV positive persons, not young men like me which is not true as anyone can acquire the disease.

Seeing the shock on my face, the health care worker counselled me that I would get cured of the disease. What was required of me was to complete the medication that I was immediately initiated on. The moment I realised I had to be on treatment for me to get cured and go back to my routine duties I accepted to be begin the treatment and vowed to myself that I would complete the treatment as guided.

Few days to the treatment, I began feeling better. All the symptoms were gone but still I continued taking the drugs remembering the guidance I had gotten from the health care worker that I had to complete the full course of treatment to get cured.

As is the case for TB patients in Kenya, I also went for the monthly drug refills and clinical reviews to be accessed the bacteria response to medication.

Luckily, I responded well to the treatment and within six months, I was confirmed to have fully recovered from the disease.

When I was diagnosed with the disease, to stop spreading the disease to others, I always ensured the areas I was in like the house or the public service vehicles were well ventilated by opening the windows. I also covered my mouth with a clean handkerchief or bent elbow when sneezing or coughing.

From my own experience to get cured of TB, one must complete their medication. To battle the disease, TB patients require psychosocial support from the family and the society at large.

Veronica's Story

On a chilly Thursday afternoon, we meet *Veronica, a middle-aged woman outside one of the high flats in Mathare North, Nairobi. After a chit chat, she leads us through a poorly light path to her house located on the 3rd floor of the flat where she has rented a room. Upon opening the door, we are meant by bubbling faces of her three children, two boys and one girl. The girl clings to her mother's dress as we enter the house.

"I am better now and able to do menial jobs to support my husband in taking care of our journey family," *Veronica tells us as she proceeds to open the windows of her house.

"My battle with Tuberculosis has opened my eyes on the importance of following public health measures among them, the importance of staying in a well light room to avoid the spread of infectious disease like TB. As much as the building we are staying in is not well light due to the congestion in this area. I always open the windows to allow enough air circulation," she adds as we settle down for the interview.

"Could I have known this before, maybe I could not have got the infection or spread it to my husband and children," *Veronica opens up.

Veronica tells us that it all began with a normal cough that progressed to a chronic cough often accompanied by a bloody sputum.

"It was mid August last year 2019, when I began coughing. I expected the cough to go away after a short time but it worsened with each passing day. I also began having night sweats, fever, unintended weight loss and feeling fatigued. I became weakly that I could not do the menial jobs like washing clothes in the neighboured at a fee that I was used to. A few weeks later, I began coughing up bloody sputum and this is when I knew things were really bad and decided to seek treatment in a nearest faith based organisation health centre," she recalls.

After several tests, the doctors told me I had TB. When I was told I had TB, I was very shocked because I associated TB with HIV and also given the fact that I had lost a lot of weight and some neighbours had began spreading rumours that I could be HIV+. Gracious enough, the health workers clarified to me that the disease was curable as long as I completed the medication

At the health facility, *Veronica was diagnosed with tuberculosis and immediately initiated on treatment.

"After several tests, the doctors told me I had TB. When I was told I had TB, I was very shocked because I associated TB with HIV and also given the fact that I had lost a lot of weight and some neighbours had began spreading rumours that I could be HIV+. Gracious enough, the health workers clarified to me that the disease was curable as long as I completed the medication," she shares.

As is the case with majority of TB patients, she began regaining back her health a few days after being initiated on treatment.

"Few weeks after beginning the treatment, I stopped coughing as well as the other symptoms disappeared. I also began regaining back my weight," *Veronica says.

Though *Veronica was determined to complete her medication to get cured and not die, stigma from neighbours dampened her spirits during the treatment.

"I was afraid of taking medication in-front of people as I was afraid of being isolated by more people as they did when they heard I had TB, and or found me taking its medication. My biggest motivation was to get cured for the sake of my children. My biggest worry was dying and leaving them behind," *Veronica says.

Her husband and children were also tested for TB. Unfortunately, they were diagnosed with the disease and luck enough initiated on treatment as well. They are still undergoing treatment.

She says her family has not experienced any problem while accessing services despite the COVID-19 pandemic.

"My call to Kenyans is that TB is curable and its services are still ongoing in all health facilities across the country. My self I have healed and regained my weight back. I am no longer coughing the terrible cough I used to. My husband and children are going on with their treatment despite COVID-19. They still go for the monthly drug refills as well as clinical reviews and given the best TB services at the health centre," she concludes.

USAID TB ARC II implemented by Centre for Health Solutions Kenya, is continuously working with the National TB Program and implementing partners to reduce the high burden of TB in Kenya. This is through improving TB case finding, improving access to high quality, patient-centred TB, DR-TB and TB/HIV service, preventing TB transmission and disease progression and strengthening TB service delivery platforms for citizens like *Veronica and her family to access TB services in the nearest health facility.

Targeted Outreach Services: Fighting TB in Populous, Congested and Low Income Urban Areas

Prisoners at Homa Bay GK prison during one of the outreaches

By Josphat Mutua | Public Health Officer-DNTLD-P

Lack of correct information, access to prevention and care services makes people in congregate setting and urban poor very vulnerable. These categories of people are not only more susceptible to contracting communicable diseases like tuberculosis (TB), but they also play an important role as 'vectors' in the spread of these diseases.

These group often have difficulty accessing quality health care as they sometimes have to hustle for a living among other competing priorities, and risky behaviors. Looking for health care service to them is considered as losing valuable work time. Simple factors like limited operating hours and distance to health facilities are barriers for people who cannot take time off to seek medical treatment.

Inadequate information and access to healthcare and safe services by these special group may have several costs and time-related effects including; delays associated with sickness, medication costs, replacement costs, time and even death. To address these disparities, active systematic screening of key populations in the community is an approach used to look for the missing persons with TB. This is achieved through targeted mobile outreaches which involves taking TB health care information and services to their setting.

Processes in the field

Outreaches normally target vulnerable populations and those in congregate settings. An outreach process involves counties making requests to be supported with the mobile digital X-Ray machine/s. The request from either County TB and Leprosy Coordinator (CTLC) or the Sub - CTLC has to justified based on the TB burden in their respective areas of target. The Head, National TB program then approves or disapproves the requests based on the justifications. The Program Head later sources for funding from the implementing partners.

For a successful outreach, goodwill from the county administration is key and is always achieved through a courtesy call to the county director of health before embarking on the outreach process. Depending on the setting, the outreach workforce includes, clinicians/nurses, Laboratory officers, Radiographers, Health Promotions officers/Public health officers/Community Health Extension Worker, Health record and information officers, Community Health Volunteers, Drivers, representatives from the TB Program, CTLC, SCTLC, and supporting partners. Occasionary a biomedical engineer and Security officers are involved where necessary.

Patients in the field are managed as per the national TB leprosy and lung diseases guidelines and outcomes reported through the county reporting channels.

Achievements

In the last quarter, two outreaches were conducted namely in Meru and in Homa Bay counties.

In Meru, the outreach was conducted in 7 sub counties between 20th to 28th July 2010. Focus was on busy urban centres, bus parks and urban informal settlements. A total of 1661 people were screened for TB, whereby 971 patients were x-rayed, with an outcome of 10 patients bacteriologically confirmed and 9 clinically diagnosed for TB making a total of 19 patients initiated on TB treatment.

In Homa Bay, the outreach focused on urban informal settlements, prisons and the fishing folks at the fish collection sites. These took place between 11th and 22nd of August 2020. A total of 1779 were screened for TB out of which 1678 took a chest x-ray. 47 patients were initiated on TB treat after 9 were bacteriologically confirmed while the reset was based on clinical diagnosis.

Challenge experienced

More time was spend trying to educate and convince people on the difference between TB and covid-19 testing and the link between the two. Some people totally refused to be screened as they thought it was related to COVID-19. There is however a need create more awareness and to increase the outreaches in the congregate settings across the country.

Country Xpert Performance Review- 2020

Best Counties

Taita Taveta

Ranked:

- 2nd in sex documentation
- 9th in age documentation
- 2nd in patient type documentation
- 2nd in phone number documentation
- 3rd in referral documentation
- 2nd in HIV status documentation
- 3rd in SMS documentation
- 2nd in Email relay
- 4th in Xpert utilization
- 2nd in system utilization

Makueni

Ranked:

- 7th in age documentation
- 3rd in sex documentation
- 3rd in patient type documentation
- 7th in referral documentation
- 3rd in HIV status documentation
- 6th in SMS relay
- 4th in Email relay
- 7th in Gene Xpert Utilization
- 3rd in System utilization

Kericho

Ranked:

- 8th in age documentation
- 8th in sex documentation
- 6th in patient type
- 7th in phone number
- 6th in HIV status documentation
- 2nd in SMS relay
- 2nd in Email relay
- 9th in Gene Xpert utilization
- 5th in System utilization

Overall Facility Ranking

72

Facilities scored above 50%

The country has 169 Gene Xpert reporting sites. Less than half of them (as presented above) scored over 50% based on the indicators in this score card. Facilities with very low performance include Chulaimbo Sub District Hospital (0%), Ex Lewa Dispensary (0%), Malela Dispensary (0%), Kinango Hospital (3%), Kajiado District Hospital (4%), Katilu District Hospital (4%), Magina Health Centre (4%), Marsabit District Hospital (4%)

Moi District Hospital Voi

With a score of 88%, the facility ranked 1st in Gene Xpert utilization, 1st in system utilization and 1st in Email relay

Londiani District Hospital

With a score of 86%, the facility was ranked 1st in Email relay, 2nd in SMS relay and 4th in HIV Status.

Bungoma County Referral

With a score of 85%, the facility was ranked 1st in Gene Xpert utilization, 1st in system utilization, 1st in recording HIV status

Matibabu Foundation Ukwala

With a score of 83%, the facility was ranked 1st in system utilization, 1st in recording referral and 1st in Email relay

County	No. of cases	Score per Indicator										Total	Percent
		Age	Sex	Patient type	Phone No.	Referring facility	HIV status	SMS relay	Email Relay	Gene Xpert Utilization	System Utilization		
Weights Assigned		**4**	**3**	**4**	**2**	**3**	**5**	**5**	**3**	**5**	**5**	**39**	**100%**
Taita Taveta	5736	1.7	2.5	3.3	1.2	1.6	4.1	2.9	1.74	2.5	4.1	25.6	66%
Makueni	16762	1.8	2.4	3.2	0.4	1.3	4.0	2.5	1.53	3.6	4.0	24.8	64%
Kericho	15957	1.7	2.2	2.9	0.7	1.0	3.7	3.0	1.80	3.3	3.6	24.0	62%
Busia	10150	2.1	2.4	3.2	0.5	1.2	4.0	2.8	1.68	2.2	3.9	23.9	61%
Bungoma	14085	1.6	2.2	3.0	0.8	1.4	3.7	2.3	1.35	3.9	3.6	23.9	61%

Uasin Gishu	10279	1.9	2.1	2.8	0.4	1.0	3.6	1.3	0.77	5.0	3.4	22.2	57%
Kilifi	7680	1.9	2.1	2.8	0.7	0.9	3.6	2.5	1.51	2.2	3.6	21.9	56%
Trans Nzoia	5972	1.1	2.4	2.9	0.6	1.3	3.7	2.6	1.57	1.7	3.7	21.7	56%
Vihiga	7205	1.9	2.1	2.8	0.8	1.2	3.4	2.4	1.43	2.1	3.4	21.5	55%
Homa Bay	22981	1.4	2.1	2.9	0.2	1.6	3.6	2.2	1.34	2.4	3.4	21.2	54%
Nakuru	22742	1.5	2.2	2.8	0.3	1.2	3.5	1.3	0.75	3.7	3.6	20.9	54%
Wajir	2249	2.0	2.0	2.7	0.5	0.7	3.4	2.3	1.37	2.0	3.5	20.4	52%
Murang'a	12344	1.2	1.8	2.3	0.5	0.9	2.9	1.9	1.12	5.0	2.8	20.4	52%
Kakamega	20273	1.2	1.9	2.5	0.5	1.2	3.1	1.8	1.09	4.2	2.9	20.3	52%
Nyeri	6298	1.7	1.9	2.5	0.2	1.0	3.2	2.2	1.34	2.7	3.3	20.0	51%
Kisii	9451	1.6	2.0	2.7	0.4	1.2	3.3	1.8	1.06	2.7	3.3	19.9	51%
Nandi	7929	1.5	2.0	2.6	0.8	0.8	3.3	1.9	1.16	2.3	3.1	19.5	50%
Kirinyaga	8506	1.3	1.9	2.5	0.3	0.8	3.2	2.1	1.25	2.5	3.1	18.9	48%
Siaya	21611	0.8	1.7	2.3	0.2	1.3	2.9	1.8	1.07	3.1	2.7	18.0	46%
Machakos	19883	1.2	1.5	1.8	0.5	0.9	2.3	1.3	0.81	5.0	2.4	17.8	46%
Embu	7116	1.6	1.8	2.4	0.1	1.3	3.0	1.4	0.82	2.1	3.0	17.5	45%
Nyandarua	7597	1.3	1.8	2.3	0.4	1.0	2.9	1.3	0.80	2.2	2.9	16.9	43%
West Pokot	6352	1.3	1.8	2.4	0.0	0.8	3.0	1.9	1.12	1.4	3.1	16.8	43%
Turkana	7523	0.8	1.7	2.2	0.0	0.4	2.8	0.9	0.56	5.0	2.4	16.8	43%
Mombasa	27994	1.1	1.5	2.0	0.3	0.8	2.5	1.4	0.82	3.8	2.3	16.5	42%
Isiolo	3172	0.9	1.8	2.4	0.2	0.4	3.0	2.2	1.31	1.4	2.9	16.3	42%
Kajiado	6096	1.3	1.8	1.9	0.5	0.8	2.4	1.8	1.09	1.8	2.6	15.9	41%
Elgeyo Marakwet	8857	1.3	1.7	2.3	0.2	0.9	2.9	0.8	0.50	2.6	2.3	15.4	39%
Narok	5208	1.2	1.6	2.2	0.2	0.2	2.7	1.1	0.63	2.3	2.7	14.9	38%
Kisumu	20959	1.2	1.6	2.2	0.0	1.0	2.7	0.1	0.05	2.9	2.7	14.5	37%
Samburu	3188	0.8	1.7	2.2	0.1	0.3	2.8	1.5	0.91	1.4	2.6	14.2	36%
Kiambu	15368	1.2	1.5	1.9	0.3	0.5	2.3	1.1	0.67	2.2	2.4	14.1	36%
Meru	16096	0.9	1.3	1.8	0.1	0.5	2.2	0.9	0.52	3.2	2.2	13.7	35%
Bomet	6136	0.9	1.4	1.9	0.1	0.2	2.3	0.9	0.54	2.7	2.3	13.4	34%
Tharaka Nithi	3978	0.7	1.3	1.8	0.3	0.5	2.2	1.7	1.00	1.7	2.1	13.2	34%
Migori	12422	0.6	1.2	1.5	0.3	0.8	1.9	1.4	0.83	2.7	1.8	13.1	34%
Kitui	8782	1.2	1.2	1.6	0.1	0.5	2.0	1.0	0.58	2.5	2.1	12.8	33%
Nyamira	11007	0.6	1.0	1.4	0.3	0.6	1.7	0.9	0.55	3.2	1.7	12.0	31%
Baringo	4153	1.4	1.3	1.7	0.3	0.3	2.1	1.0	0.59	1.2	2.2	11.9	31%
Nairobi	44786	0.5	0.8	1.0	0.2	0.5	1.3	0.7	0.39	2.7	1.3	9.4	24%
Tana River	0	0.0	2.2	2.9	0.3	0.0	3.7	0.0	0.00	0.0	0.0	9.1	23%
Laikipia	6118	0.7	0.7	1.0	0.1	0.4	1.2	0.6	0.35	1.8	1.2	8.1	21%
Kwale	4469	0.7	0.6	0.8	0.0	0.2	1.0	0.3	0.20	1.3	1.1	6.3	16%
Garissa	4111	0.2	0.2	0.2	0.0	0.1	0.3	0.0	0.00	1.8	0.3	3.1	8%
Marsabit	3436	0.1	0.3	0.5	0.0	0.1	0.6	0.0	0.01	0.7	0.3	2.7	7%
Mandera	1067	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.01	0.9	0.1	1.6	4%
Lamu													

DNTLD-P Commodities and Pharmacovigilance report

By Dr Abdullahi Omar and Dr Evanz Kituzi | DNTLD-P

The order management has been optimized by the introduction of the county allocation tool, supported by the Clinton Health Access Initiative (CHAI). The pilot was initiated in September 2019. The rollout process was interrupted by the COVID-19 pandemic thus compelling the program to engage county officials virtually.

The county allocation training tools for both first line and second line drugs were completed by September 2020. This will encourage monthly reporting rates, quality auditing of reports and reduce turnaround time between placements of orders and receiving of commodities at the facilities.

Safety and quality assurance of medicines is an essential right as enshrined in the constitution. Through the annual joint programmatic post marketing surveillance, the section is able to determine the quality of medicines in the market. The surveillance lasts for about 3 months as described per the protocol. The post marketing surveillance test results for last year are yet to be released from the national quality control laboratory.

The monitoring of safety and usage of these molecules in our patients is done under Active Drugs Surveillance Monitoring (ADSM) and pharmacovigilance unit under commodities science section and Logistics management. ADSM operational research is about to begin in the program for the new molecules under the injectable-free regimen, in Drugs resistant tuberculosis (DR-TB). This shall assure early detection of the reaction patterns of the drugs among patients and timely interventions to avert fatalities and possible deaths or disabilities due to adverse drugs reactions.

The commodities' security and procurement meetings occur each month to review and analyze commodities being procured, stock status and average monthly consumptions. The meetings further aim to provide sustainable services to our patients at all times.

The nexus between procurement committee, national order management committee and commodities security committee assures stability in commodities supply chain and commodities science practice in the TB program.

When stringent measures were put in place due to COVID-19 pandemic, the committee approved the supply of commodities to facilities from three to six months of stock while patients were supplied with one month of stock instead of the regular weekly supply. This ensured that interaction was limited between patients while services were ongoing.

Early initiation to, and uninterrupted therapy are key in ensuring better treatment outcomes and lowering incidences of DR-TB cases. However, it has been a challenge in ensuring adherence to treatment among some of our patients. Thus, the committee has approved development of tools to assist the monitoring and management of therapy to ensure uninterrupted treatment due to patient-based factors. These tools will be operationalized by early January 2021.

The section is further planning to conduct technical assistance (TA) on the usage of the new tool for county allocations. The TA to counties experiencing challenges will aim at enhancing access to commodities through quality data collection and analysis.

REPUBLIC OF KENYA

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